NEW MEXICO DEPARTMENT OF HEALTH, OFFICE OF SUBSTANCE ABUSE PREVENTION

EVALUATION OF SUBSTANCE ABUSE PREVENTION PROGRAMMING

SUBMITTED TO:
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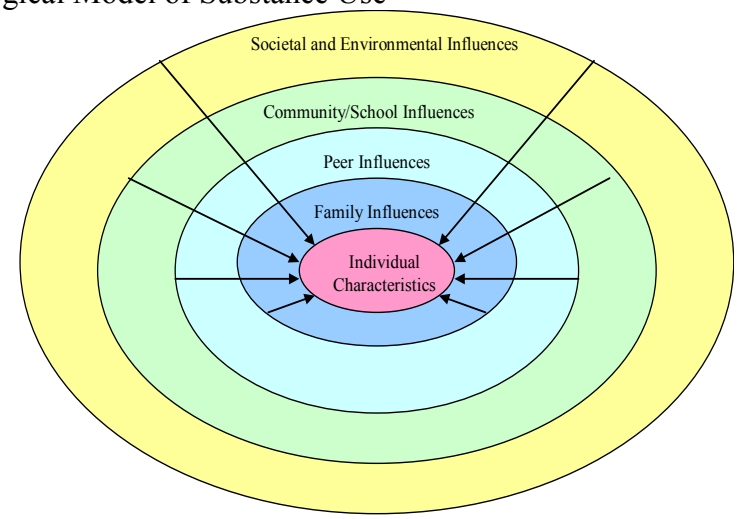
ARMVC	Alcohol-Related Motor Vehicle Crashes
ARMVF	Alcohol-Related Motor Vehicle Fatalities
ATOD	Alcohol, Tobacco, and Other Drugs
CAPT	Center For Applied Prevention Technologies
CSAP	Canter for Substance Abuse Prevention
FAS	Family Assessment Scale
FY	Fiscal Year
IRB	Institutional Review Board
NHTSA	National Highway Traffic Safety Administration
OSAP	Office of Substance Abuse Prevention
PIMS	Periodic Information Management System?
PIRE	Pacific Institute for Research and Evaluation
RDD	Random Digit Dialing
SPF SIG	Strategic Prevention Framework State Incentive Grant
SAPT	Substance Abuse Prevention and Treatment Block Grant
SDFSC	Safe and Drug Free Schools and Communities
SEW	State Epidemiological Workgroup
SWCAPT	Southwest Center For Applied Prevention Technologies
YRRS	New Mexico Youth Risk and Resiliency Survey
YRBSS	Youth Risk Behavior Surveillance Survey

I. Introduction

Substance use and abuse among adolescents is highly prevalent in the state of New Mexico compared to the United State as a whole. For example, among high school students in 2007, 43.2% of 9th-12th graders in NM were current drinkers.[1] Furthermore, of current drinkers, 65.7% also reported recent binge drinking.[2] Among Latino/Hispanic students, 33.8% reported having their first drink before age 13, compared to the national average of Latinos/Hispanics of 29%; African American students in NM were even more likely to report having had their first drink before age 13 (42.0%) compared to the national average for African Americans of 26.7%.[3] These are important measures of risk because these youth are more likely to engage in other risk behaviors as well. For example, among NM youth who reported their first drink prior to age 13, the likelihood of engaging in more risky behavior such as binge drinking or drinking and driving was considerably greater compared to those who had their first drink after age 13. Moreover, NM youth who reported binge drinking were far more likely to report riding with a driver who had been drinking (57.3%), driving after drinking (37.3%), or using alcohol or drugs before having sex (37.2%), compared to those who did not report binge drinking. Fortunately, great strides are being made in NM through the efforts of the Office of Substance Abuse Prevention (OSAP) to reduce these high rates of substance use and prevent substance use among young people in NM.

Many factors influence whether one engages in high risk behavior; research indicates that an ecological model of influence is the most comprehensive and that evidence-based (meaning comprehensive research has shown them to be effective) prevention interventions at each level of influence can be effective in reducing and preventing substance use.

Figure 1: The Ecological Model of Substance Use



[1] Health Choices, Health Students: 2007 New Mexico High School Results, Alcohol Use and Related Behaviors. NM YRRS. NM Department of Health & Public Education Department. Report can be found at: http://www.health.state.nm.us/epi/yrrs.html.

[2] Ibid

[3] Ibid.; Centers for Disease Control and Prevention. *Youth Risk and Behavior Surveillance- United States, 2007.* Surveillance Summaries, June 6, 2008. Morbidity and Mortality Weekly Report, 2008; 57 (No. SS4).

OSAP has designed a comprehensive prevention program to address risk and protective factors influencing substance use at each level of this model. In the Fiscal Year 2008-2009 (FY 09) this included a number of initiatives. These initiatives were:

- The Strategic Prevention Framework State Incentive Grant (SPF SIG)
- 12-17 year old Prevention Programs
- Pre-K through 6th grade Prevention Programs
- 0-6 Prevention Programs

OSAP has required local and statewide evaluation with the intent of learning about and improving the effectiveness of their prevention programming. Local prevention programs must have independent evaluators to assist with the design, collection, analysis, and interpretation of data.

State Evaluation Team

The Pacific Institute for Research and Evaluation (PIRE) has served as the state level evaluation contractor for FY 09. The evaluation team includes Martha W. Waller, Ph.D., Elizabeth Lilliott, Ph.D., Robert Flewelling, Ph.D., Laurie Stockton, M.P.H., and Sean Hanley, M.P. H. The evaluators have been involved with OSAP in the planning process, the design of the evaluation plan and data collection instruments, the State Epidemiological Outcomes Workgroup (SEOW), monitoring and oversight of data collection, and providing training and feedback to OSAP staff, local consultants, and local evaluators and program providers.

Dr. Waller's expertise is in adolescent health risk behaviors and in quantitative research design and data analysis. Dr. Lilliott's expertise is as a cultural anthropologist involved in research with Latino/Hispanic populations and consumers of NM Behavioral Health System. She speaks Spanish fluently and is an expert at qualitative data collection and analysis. Dr. Flewelling is a trained epidemiologist with many years of experience with evaluation and research design and analysis. Ms. Stockton has a Masters in Maternal and Child Health and has worked in evaluation of substance prevention programming for over 5 years. Mr. Hanley has his Masters in Health Behavior and Health Education and has worked in evaluation of school-based prevention programs for several years.

State-Level Evaluation Plan

As previously mentioned, NM has several prevention efforts underway funded by several mechanisms including: the Substance Abuse Prevention and Treatment Block Grant (SAPT), the Safe and Drug Free Schools and Communities (SDFSC), the State General Fund, and the SPF SIG. Programs are implemented in school settings, out-of school or after-school settings, and community settings. For the FY 09, there were 34 funded prevention programs implementing 61 programs taking place in schools, after school or out of school, and in the community at large.

The previous state evaluation team had been involved since FY 2000, so had a long history with OSAP and had developed an evaluation system to meet their goals. As PIRE was new to the NM evaluation project in FY08, it was agreed that those processes created by the

previous evaluator would remain in place for FY 08, while the team met with local and state stakeholders and assessed what was working and what was not working. Therefore, the goal of FY 08's evaluation report was to align closely with previous year's reports and to add additional analyses where deemed appropriate.

However, in FY 09 changes were introduced. First, a new evaluation instrument was created during FY 08 and first used in FY 09 to assess prevention programming targeting 12 to 17 year olds. The new instrument (also referred to as the Strategies for Success - SFS) now consists of 5 modules, targeting ATOD use, youth violence, and resiliency. There are two versions of the ATOD use module, a middle school version and a high school version. This was done because the ATOD use module uses questions from the NM YRRS surveys allowing us to compare results of youth in OSAP funded programs to a representative sample of NM youth. This year's evaluation report will include results from the new SFS instrument and compare those findings with comparable samples from the NM YRRS.

Over the course of FY 09, changes were made to the evaluation instrument used with parents of 0-6 year olds (also known as the Family Assessment Scale- FAS). The revised FAS will be used beginning in FY 10. All revisions to data collection instruments are made with input and feedback from local program providers, local evaluators, and OSAP staff, and then piloted with the target group(s) for additional feedback before widespread use.

At this time, no revisions have been made to other data collection instruments used in Direct Services prevention programming. All changes that have taken place have been achieved in collaboration with all local and state stakeholders. PIRE is committed to maintaining open communications with OSAP staff, providers and local evaluators so that whenever possible decisions are not top down but rather collaborative efforts that meet everyone's needs and goals.

In FY 09, PIRE had several goals to focus on. First, we needed to determine whether changes in the evaluation plan and instruments that took place in FY 08 were productive and successful or needed additional revisions and alterations. Second, we needed to understand what changes needed to take place and how best to make them. Third, we needed to ensure the collection of quality pre- and post-test data from all direct service program providers and community level data for all SPF SIG programs. Additionally, we needed to provide a customizable approach to data analysis for local programs and the tools with which to accomplish it. We needed to provide quality and prompt technical assistance and support to stakeholders at the local, state, and national level. This included providing assistance in completing quarterly reporting at the local and state level, providing data to the cross-site evaluation team, attending meetings and providing trainings, and of course being available to talk with stakeholders as often as needed.

II. Capacity Building and Technical Assistance

In meetings with local and state stakeholders at the beginning of the FY08, we found that there were concerns about the quality of the data collection instruments, the quality of the data collected, and the communications with the state evaluator. As such, PIRE instituted several systems to improve communication among state staff, consultants, local providers and evaluators, and the state evaluator. While a Google Group listserv was created to allow parties to post ideas, tools, protocols, share concerns and questions, and generally communicate with the NM evaluation community; it largely fell out of use in FY09. Instead, direct email communications were used especially for important announcements to program evaluators, for messages that did not need to be sent to the entire group and those that were person or program specific. Upon the request of OSAP in FY08, important announcements were sent out by program managers directly to programs. Additionally, all persons were provided with office numbers and cell numbers of Drs. Waller and Lilliott. The lead evaluator, Dr. Waller, visited the state 4 times over the FY and stayed for lengthy visits in order to meet with those who desired one-on-one meetings. Dr. Lilliott lives in Albuquerque and was available to local programs to provide technical assistance in person as a local evaluator herself.

It was discussed early in FY08 about whether the creation of a website specifically devoted to the NM SPF SIG would be useful. It was decided at that time to not pursue that path for FY 08 since the Southwest Center for Applied Prevention Technology (SWCAPT) maintained most pertinent information needed for communities. With the dismantling of the CAPTs by CSAP, it was decided for FY 09 to create a website specifically for the SPF SIG communities and those other communities interested in implementing the SPF model and utilizing environmental strategies. Thus in FY09 a full scale website was developed: http://www.nmprevention.org/index.htm. Maintained by PIRE, this website contains all information pertinent to the New Mexico Prevention system, including the SPF SIG, useful links, data collection and entry tools and protocols, periodic reporting documents, contact information for OSAP and program staff and evaluators and descriptive programming information.

Throughout FY09 the PIMS site provided all the data collection tools, the data entry tools, protocols, and SPSS syntax needed for the programs to participate fully in the evaluation process. PIRE worked closely with Adrian Reyes to keep the evaluation section of the Participant Information Management System (PIMS) site up to date and convenient to access. At the end of FY 09 Reyes made a link to the prevention website's evaluation instruments for all direct services program in order to reduce duplication of efforts and resulting confusion: http://www.nmprevention.org/Evaluation_Instruments.html.

In addition to the more obvious communication tools, PIRE staff met with local evaluators and providers throughout the year at their quarterly meetings, and presented on data collection techniques and results. They also attended the SEW meetings and regular OSAP meetings. PIRE also held conference calls with local evaluators to create and revise data collection instruments and provided trainings on these instruments. Additionally, PIRE participated in the tribal data collection group lead by OSAP consultant Tafoya and Associates. PIRE also hosted Go-To-Meetings on-line for trainings and revision meetings so that those unable to travel could still attend. Finally PIRE participated in the review of the End-of-Year

program reports to assist with data interpretation and advise Program Managers. PIRE continued to increase communication at all levels such that local evaluators and providers felt they understood the expectations placed on them by the state evaluator and had input into how to establish those expectations for the next FY.

Even while the use of new instruments and adjusting to different analytical approaches to data has lead to some difficulties for some local evaluators, PIRE has made every effort to keep channels of communication open and ready support available. Feedback PIRE has received from local evaluators and programmers about the technical assistance we have provided this past year has been very positive.

III. SPF SIG Community Survey

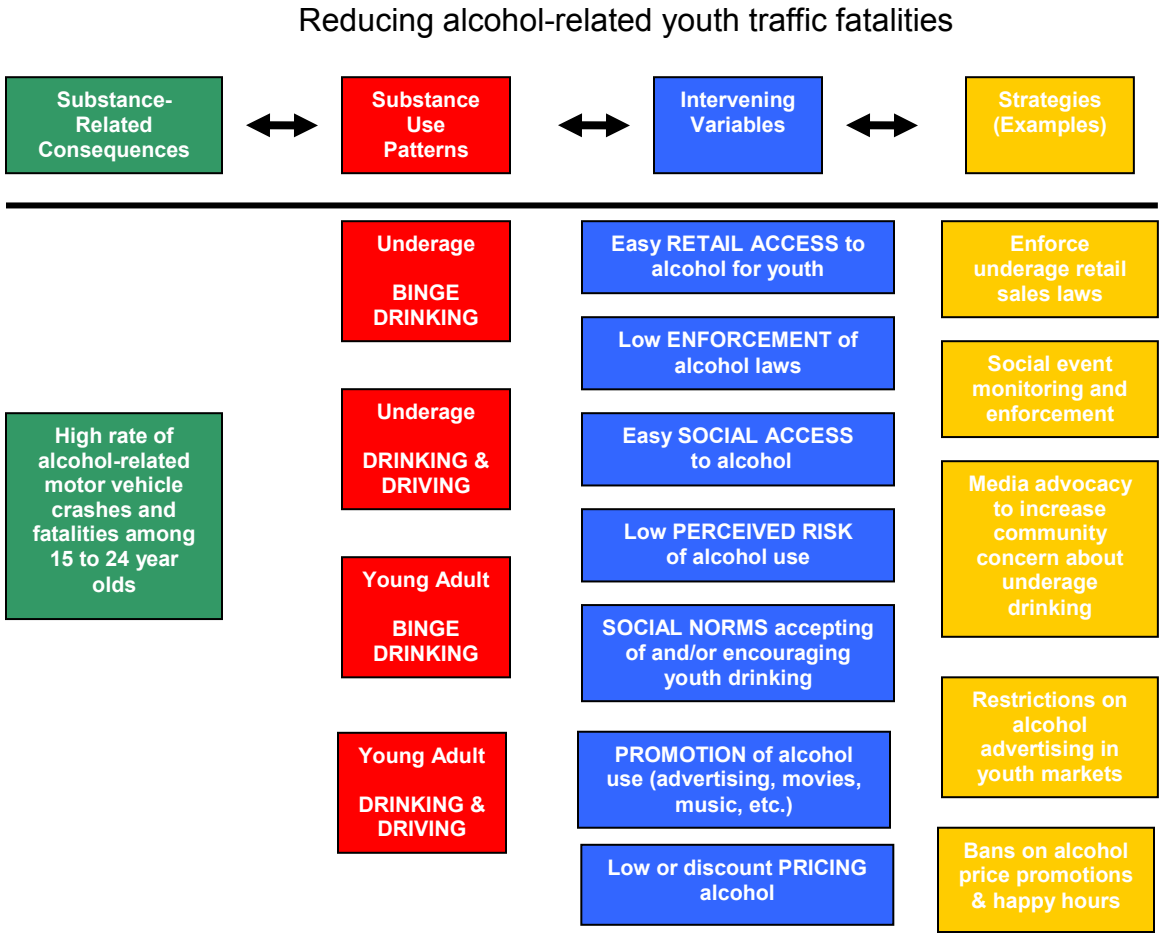
Background

The NM Strategic Prevention Framework State Incentive Grant (SPF SIG) is a five year grant intended to incorporate a data driven, community centered, environmental approach into ATOD prevention programming. NM was one of the first five states to receive a SPF SIG from CSAP to incorporate the SPF model into their prevention programming. The SPF model includes 5 steps: 1) Needs Assessment and Prioritizing, 2) Capacity Building, 3) Strategic Planning, 4) Implementation of Environmental Prevention Strategies, and 5) Evaluation. Inherent in the SPF process is that it uses a public health approach, is data driven, addresses problematic substance abuse outcomes and behaviors, uses strategies that are scientifically defensible, and is community/population based. Figure 2 demonstrates the SPF SIG Model.

Figure 2: The Strategic Prevention Framework Model

As a result of receiving the SPF SIG in 2005, a State Epidemiological Outcomes Workgroup (SEOW) was formed to examine state-wide indicators of substance-related outcomes and consequences and to determine patterns of consumption leading to those outcomes. Using this data driven process, the SEW prioritized alcohol-related motor vehicle (ARMVC) crashes and fatalities (ARMVF) among youth as the priority outcome and underage and young adult drinking and binge drinking consumption patterns on which to focus across the state. Figure 3 presents the logic model for the NM SPF SIG.

Figure 3: New Mexico SPF SIG Logic Model



Over the past 3 years, 14 selected SPF SIG communities collected local level data while conducting their own needs assessments designed to answer the questions: Why are ARMVC and ARMVF a problem in our community? Based on the information gained during the needs assessment process, communities identified the intervening variables that were contributing to the problem. They then wrote community specific strategic plans based on what was learned from the needs assessment and built capacity to implement prevention strategies designed to address the intervening variables. Implementation of evidence-based environmental strategies designed to address the identified intervening variables in their communities leading to ARMVC and ARMVF of young people, began typically in late 2005 or early 2006. All 14 communities participated in the Community Survey during FY 08 and again this past FY.

During FY 07, the previous evaluator helped conduct a statewide telephone survey using random-digit-dialing (RDD) to collect information about attitudes, knowledge, and behaviors of persons 18 to 25 years old in NM. Unfortunately, a very low response rate to the telephone survey meant that the data were not sufficient to draw conclusions. In FY 08, PIRE designed a new data collection strategy to arrive at a representative random sample of New Mexicans. The overall sample size increased dramatically in large part due to increasing the age range of respondents to include up to 60 year olds. However, while the sample was sufficient to draw

conclusions at the state level, for many communities the sample was not sufficiently large at a local level to draw conclusions. For FY 09, PIRE revised the data collection strategy again, with the intent of increasing the sample size such that both the local communities and the state would have sufficient sample sizes to be useful in evaluating SPF SIG prevention efforts.

In FY 09, communities were provided with a target number for *completed* surveys sufficient to measure change in behaviors with a prevalence of 50%, a 5% margin of error, and with 95% confidence intervals. We assumed this rather liberal prevalence rate because most of the measures on the survey assessed intervening variables that are quite common, as opposed to drinking and driving, which is rather rare by comparison. Given time limitations of the project, we would first expect to see changes in the intervening variables before the outcome therefore, if communities are able to assess change within the targeted intervening variables, the logic model would predict that these changes will result in changes in the outcome as well even if they are not measurable changes at a local level.

Methods

For FY 09, it was decided that to be more culturally competent and to increase the capacity of local prevention programs to collect local level data as well as sustain the collection of local level data, that each program would be required to create a local level data collection protocol. These protocols required the local programs to plan how they would collect the required number of completed surveys within the two month window of data collection and reflect the uniqueness and challenges inherent in each community. Programs were divided into 5 categories:

1) Programs located in Albuquerque (not including UNM COSAP)
2) Programs for whom MVD recruitment worked well last time
3) Programs for whom MVD recruitment did not work well last time
4) Predominantly Native American Communities
5) UNM COSAP

Each program had to design a protocol based on the group they were part of. In particular, those programs that established a good working relationship with the local MVD were asked to continue working with the MVD to increase the representativeness of their data. However, all communities were given leeway to collect data at other sites and using different methods. The SEOW reviewed each local protocol and required revisions where necessary. Programs were then required to follow this data collection protocol and if changes were made the protocol needed to be updated and approval of the changes by the SEOW was required. This local level data collection protocol was required of all SPF SIG and comparison communities. The intention was to encourage programs to prepare for data collection ahead of time and to create a data collection plan that could be used again in the future for data collection efforts. Communities could collect paper surveys and/or recruit participants for the internet survey. No phone surveys were conducted this time. Programs were not allowed to collect data from anyone under age 18. All data recruitment methods received approval from PIRE's Institutional Review Board (IRB) and UNM's recruitment additional received approval from their IRB.

Data were collected in the 14 SPF SIG communities and 7 comparison communities across the state. Communities were defined broadly depending on the location. For example, there are technically 3 SPF SIG communities within the city of Albuquerque. On the other hand, one SPF SIG community encompasses four counties in southwest New Mexico. All SPF SIG programs attempted to recruit from their entire targeted area.

Quantitative Analyses

Analyses were conducted on aggregated data from 2008 and 2009. We began by conducing preliminary analyses to assess the validity and reliability of the questions. A factor analysis was conducted to examine if variables assessing similar constructs hung together as hypothesized. In addition, reliability testing was done on the measures to examine the extent to which the measures were indeed reliable. Univariate and bivariate analyses were then conducted to examine basic frequencies and distributions across communities and years. Additional bivariate analyses comparing the change in targeted outcomes by year and stratified by group membership were conducted and chi-square and t-tests were run to see if significant differences existed between 2008 and 2009 in both the Comparison group and the SPF SIG group. Additional comparisons between targeted SPF SIG communities and comparison communities were done using regression techniques that control for differences in the samples in age, race/ethnicity, biological sex, and other sociodemographic measures and examine whether the SPF SIG and comparison communities differ on the basis on the environmental interventions being conducted. Using SAS, logistic regressions were run for bivariate outcomes and GLM regressions were run for ordinal outcomes. Regression models were run with and without inclusion of an interaction term representing the group by year interaction. The variance in the outcome accounted for in each model, or R-square, is also reported. The R-square (R^2) statistic is a measure of effect size. It is interpreted as a percentage of the variance accounted for by a variable in the model. For example, if the variable defining the intervention group from the comparison group has an R^2 of .24, then approximately 24% of the differences found between SPF SIG communities and comparison communities for an outcome can be attributable to the variables in the model. We assume that at least part variance in the outcome by group is due to the environmental strategies in the SPF SIG communities. Presented in the results section is a summary of the findings from the regression analyses. Appendix A includes additional tables and graphs of these findings.

Qualitative Analyses

The final question on the Community Survey asked participants to provide additional commentary about "the issues we have asked about today." The intent of this question was to allow participants an opportunity to respond to the survey in their own words, share their perception of the survey topics and methodology, and to elicit ideas on other relevant issues that might impact DWI and underage drinking in their communities but were not queried about on the survey. Finally, the responses can be mined by local programs as means to represent a "local voice" about alcohol-related issues in their communities.

Responses were transcribed and coded using QSR NVIVO qualitative analysis software. Using NVIVO, the researcher creates a coding tree that reflects her analytical needs, reads the

transcribed text, and then codes it according to one or more thematic 'nodes' on the tree. Once the coding is completed, the tree structure can then be analyzed by studying relationships among nodes, considering prevalence of responses in a node, and by focusing on outlying nodes as a means to inquire into new hypotheses. A simple scheme was created for this purpose, with an initial coding tree based upon the 7 intervening variables of the SPF SIG, "survey feedback" (i.e. "it was too long") and "personal narrative" (responses that were very evocative). As coding proceeded, additional nodes were created as the density of a theme emerged (e.g., the need for treatment). Below is a summary of all the responses (Comparison and SPF SIG communities together). The open-ended question format prohibited a rigorous comparison of qualitative responses between the SPF SIG and Comparison communities because it could not control for method of implementation.

Results

In 2009 a total of 7,393 completed surveys were collected from communities. For purposes of the evaluation analyses, we eliminated all respondents with no age reported. We did this primarily because we did not want to include respondents under the age of 18 since this survey was written specifically for NM residents 18 and over (n = 332). We also eliminated any respondents who reported their age as less than 18 (n=50). In total, approximately 5% of the sample was dropped. That left us with a sample size of N = 7,011. It is important to note that not all questions were answered by all respondents meaning the total number of respondents in any given analysis may vary because of missing responses being dropped from analyses.

Univariate and Bivariate Results of SPF SIG & Comparison Communities

Table 1 presents the breakdown of the survey sample for both SPF SIG communities and Comparison communities for both 2008 and 2009. Consistent with other survey results in the literature, females are more likely to complete the survey than males. This was true in both SPF SIG and Comparison communities. When we examine differences between the groups within a FY year, we find that in 2008, the race/ethnicity distribution differed significantly between the SPF SIG communities and comparison communities ($t=6.14$, $df= 714$, $p< .001$). Native Americans were over represented in the Comparison communities compared to the SPF SIG communities. In 2009 the race/ethnicity breakdown of the respondents varied only slightly between the two groups and there were no significant differences between the two groups. In 2008, the SPF SIG and comparison groups also differed significantly on the following measures: a language other than English spoken at home ($t= 4.31$, $df= 688$, $p<.0001$) and age ($t= 5.96$, $df= 783$, $p<.0001$). There were no differences by biological sex or length of time living in NM. In 2009, the SPF SIG and Comparison community samples differed by biological sex ($t= 2.68$, $df= 2817$, $p<.01$), length of time living in NM ($t= -5.72$, $df= 2428$, $p<.0001$), and a language other than English spoken at home ($t= 5.57$, $df= 2774$, $p<.0001$). There were no differences by age or race/ethnicity.

Examining the differences in demographics across the FY years within a group, we see that among the comparison group samples, there were significant differences in the average length of time respondents lived in NM ($t= 5.36$, $df=1051$, $p< .0001$) and race/ethnicity ($t= 2.53$, $df=842$, $p< .05$). More respondents reported having lived in NM greater than 5 years in 2008

than in 2009; a larger proportion of respondents in 2008 indicated they were non-Hispanic Native American compared to in 2009. Among the two SPF SIG samples, in 2008 a lower

Table 1: Demographics of SPF SIG and Comparison Communities in 2008 & 2009

	2008				2009			
	SPF SIG Communities (n= 2,360)		Comparison Communities (n= 494)		SPF SIG Communities (n= 5,339)		Comparison Communities (n= 1,672)	
Biological Sex	N	%	N	%	N	%	N	%
Male	864	36.6%	185	37.5%	2162	40.5%	616	36.8%
Female	1441	61.1%	299	60.5%	3144	58.9%	1045	62.5%
Missing	55	2.3%	10	2.0%	33	0.6%	11	0.7%
Race/Ethnicity								
Non-Hispanic White	863	36.6%	131	26.5%	1512	28.3%	383	22.9%
Hispanic/Latino	901	38.2%	142	28.7%	2343	43.9%	878	52.5%
Native American/Alaskan Native	447	18.9%	202	40.9%	1064	19.9%	246	14.7%
Other†	93	3.9%	11	2.2%	296	5.7%	93	5.7%
Missing	56	2.4%	8	1.6%	115	2.2%	70	4.2%
Age								
18-20	357	29.9%	21	11.5%	522	22.1%	183	24.0%
21-24	342	28.6%	37	20.3%	582	24.6%	170	22.3%
25-34	67	5.6%	16	8.8%	115	4.9%	43	5.6%
35-44	31	2.6%	14	7.7%	104	4.4%	34	4.5%
45 and over	399	33.4%	94	51.7%	1042	44.1%	332	43.6%
Length of time lived in NM								
< 1 year	125	5.3%	14	2.8%	247	4.6%	127	7.6%
1 to 5 years	235	10.0%	56	11.3%	631	11.8%	255	15.3%
>5 years	1947	82.5%	414	83.8%	4368	81.8%	1265	75.7%
Missing	53	2.3%	10	2.0%	93	1.7%	25	1.5%
Language other than English spoken at home								
Yes	928	39.3%	247	50.0%	2514	47.1%	924	55.7%
No	1359	57.6%	234	47.4%	2680	50.2%	719	43.0%
Missing	73	3.1%	13	2.6%	145	2.7%	29	1.7%

† Other category includes African Americans/Blacks, Asian/Pacific Islanders, and other un-specified race/ethnicities.

percentage of males completed the survey than in 2009 ($t= -2.69$, $df=4441$, $p< .001$) and the average age of respondents was lower ($\mu= 35.7$) in 2008 than in 2009 ($\mu= 38.8$) ($t= -8.34$, $df=4558$, $p< .0001$). The differences in age are due in large part to a large student sample from the University of New Mexico (UNM) in 2008. Finally, Hispanic/Latinos were more represented 2009 compared to 2008 whereas white, non-Hispanics were less represented in 2009 compared to 2008 ($t= -6.82$, $df = 4810$, $p < .0001$). Overall, only a small percentage of respondents were missing values on the demographic variables in either year of data collection.

Table 2 below compares the prevalence of high risk drinking and drinking and driving behaviors among respondents of the SPF SIG and non-SPF SIG communities in both 2008 and 2009. When we look within each FY, we can see that in 2008, the SPF SIG community sample was proportionally higher than the Comparison community sample on most of the risk behaviors reported on in Table 2. This finding was not unexpected because the SPF SIG communities were largely selected based on the high rates of ARMVC and ARMVF as well as the consumptions patterns leading to these consequences in their communities. However, by 2009, this pattern changed dramatically such that the SPF SIG sample had decreased to levels similar to the comparison communities or even lower than the comparison communities.

When the data are examined within each group across the years, we see that in 2009, the prevalence of key alcohol consumption patterns decreased significantly across the board in the SPF SIG communities yet did not decrease for comparison communities with one exception, binge drinking in the past 30 days ($\chi 2= 10.29$, df= 1, $p = .001$). Furthermore, significant increases between 2008 and 2009 were seen in reported past 12 month driving under the influence ($\chi 2= 14.54$, df= 1, $p \leq .0001$) among the comparison samples.

It is hypothesized that over the course of the SPF SIG the prevalence of risky alcohol consumption and drinking and driving in SPF SIG communities will decrease while the prevalence in Comparison communities will remain the same, increase, or possibly decrease as well, but not to the same extent as in SPF SIG communities. These initial findings would indicate that to be the case. Yet with all studies taking place in the real world settings rather than laboratories, additional factors that we cannot control for may also be related to why we may

Table 2: Reported prevalence of High Risk Drinking Behaviors between SPF SIG and Comparison Communities in 2008 and 2009

High Risk Drinking Behavior	Comparison Communities		SPF SIG Communities	
	2008	2009	2008	2009
Rode in a car at least once in the past 30 days with someone who had been drinking	11.4%	12.9%	15.3%	13.0%**
Drank alcohol at least once in the past 30 days	42.6%	41.1%	54.3%	41.0%***
Drank 5 or more drinks in one sitting at least once in the past 30 days	27.5%	19.4%**	32.2%	17.9%***
Drove at least once in the past 30 days when they had perhaps too much to drink	5.6%	4.5%	7.4%	5.2%***
Drove at least once in the past 30 days after drinking 5 or more drinks	7.7%	6.2%	7.9%	5.8%**
Drove under the influence of alcohol only at least once in the past 12 months	11.5%	19.3%	15.7%	13.9%***

*p≤ .05, ** p≤.01, *** p ≤ .001.

see changes. For example, additional DWI prevention efforts have been taking place across NM including the Governor's DWI Prevention Initiative, a grant funded through the National Highway Transportation Safety Administration (NHTSA), efforts through the NM Department

of Transportation and local law enforcement, as well as local tribal efforts to reduce DWI incidents. These efforts most likely contribute to changes in both target and comparison communities. However, the reductions seen among the SPF SIG community samples are one indication that the SPF SIG prevention interventions may be having an impact above and beyond other prevention efforts across the state.

Table 3 captures the average number of times respondents indicate engaging in high risk behaviors in addition to the average age of respondents' first drink of alcohol. In 2008, the SPF SIG sample reported slightly more drinking and binge drinking in the past 30 days compared to the Comparison community sample. However, these differences were no longer evident in 2009. Among the SPF SIG samples, the average number of times respondents reported drinking alcohol in the past 30 days and the average number times respondents reported binge drinking in the past 30 days decreased significantly between 2008 and 2009. On the other hand, the Comparison community samples reported virtually identical averages at 2008 and 2009.

These same analyses stratified by biological sex are reported in Table 1, Appendix A. One very important caveat to keep in mind when examining the bivariate analyses in Table 2 is that these analyses do not control for the differences between the samples with respect to age, race/ethnicity, sex, and other sociodemographic factors known to be associated with drinking and driving related behaviors. Therefore, these bivariate results, while initially perhaps very impressive, may very likely be confounded due to these existing differences between the samples. For this reason, we also conducted regression analyses controlling for key socio-demographic measures and results are presented later in this section.

Factor Analysis and Reliability Analyses of Scales

The focus of the SPF SIG community survey is to collect data on consumption measures associated with ARMVC and ARMVF, as well as information around targeted intervening variables. SPF SIG communities implemented activities to increase the perception of risk and consequences around drinking in regards to individual health risks and the legal ramifications of drinking and driving. As a result, many of the questions on the survey focused on how likely it was that someone would be caught by law enforcement for serving alcohol to minors or intoxicated patrons, or getting caught drinking and driving. Other questions focused on the awareness of media in the community about drinking and driving and community norms around underage drinking and driving.

As in 2008, we conducted a factor analysis of the 2009 survey items to determine if the responses to the perception of risk questions grouped together in such a way that that it would be appropriate to combine into a "perceived risk" scale or an "awareness of media efforts" scale. After conducting a factor analysis with varimax rotation on measures that did not include the consumption measures nor demographics, a total of 5 factors were revealed: 1) The Risk of Arrest for Underage Drinking and Over-Consumption, 2) Awareness of Prevention Efforts, 3) The Risk of Being Caught, Arrested and Convicted for Drinking and Driving, 4) The Awareness of Prevention Efforts, and 5) Drinking Norms.

Table 3: Mean frequency of High Risk Drinking Behavior and Average Age at First Drink of Alcohol for SPF SIG and Comparison Communities

	Comparison Communities				SPF SIG Communities			
	2008		2009		2008		2009	
High Risk Drinking Behavior	Mean	95% CI	Mean	95% CI	Mean	95% CI	Mean	95% CI
The average number of times in the past 30 days that the respondent rode in a car with someone who had been drinking (Range in 2009 = 0 – 60 times)	0.5	0.21-0.80	0.5	0.35-0.57	0.5	0.43-0.60	0.5	0.45-0.62
The average number of times in the past 30 days that the respondent consumed 1 or more alcoholic drinks (Range in 2009 = 0 – 38 times)	2.6	1.71-2.63	2.6	2.34-2.88	3.5	3.21-3.72	2.7***	2.55-2.90
The average number of times in the past 30 days that the respondent drank 5 or more drinks on one occasion (Range in 2009 = 0 – 74 times)	0.9	0.40-0.92	0.9	0.72-1.06	1.2	1.06-1.35	0.8***	0.74-0.92
The average number of times in the past 30 days that the respondent drove when he/she had too much to drink (Range in 2009 = 0 – 150 times)	1	0.02-0.13	0.2	0.03-0.41	0.2	0.12-0.22	0.1	0.11-0.18
Average Age at First Drink of Alcohol								
The average age in years of the respondent at his/her first drink of alcohol (Range in 2009 = 0 – 89 years)	16.5	15.0-16.0	16.6	16.3-16.86	16	15.86-16.18	16	15.88-16.16

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

We then constructed five scales incorporating the corresponding measures for each factor. Only items with factor loadings of .40 and above, indicating a moderate to high similarity with the other items in the factor were included for scale development.

The Risk of Arrest for Underage Drinking and Over-Consumption (UDOC) scale includes four items:

1) How likely are police in your community to break up parties where teens are drinking? (Factor loading = .82)
2) How likely are police in your community to arrest an adult for giving alcohol to someone under 21? (Factor loading = .82)

3) How likely would someone in your community be refused alcohol in a bar or restaurant because they already had too much to drink? (Factor loading = .44)
4) If someone was caught selling alcohol to a drunk or intoxicated person in your community, how likely is it they would be arrested? (Factor loading = .53)

The Perceived Risk of Being Caught, Arrested and Convicted for Drinking and Driving (Perceived Risk) scale includes the following three survey items:

1) If you were driving after having had too much to drink, how likely is it you would be stopped by police? (Factor loading = .59)
2) If you were driving after having had too much to drink & were stopped by police, how likely is it you would be arrested? (Factor loading = .81)
3) If you were driving after having had too much to drink & were stopped and charged with DWI, how likely is it you would be convicted? (Factor loading = .80)

The scale measuring the Support of Local Prevention Efforts (Prevention Support) includes the following three survey items:

1) To what extent do you support local efforts to reduce drinking and driving your community? (Factor loading = .85)
2) To what extent do you support local efforts to reduce drinking among teens in your community? (Factor loading = .85)
3) To what extent do you support local efforts to reduce alcohol advertising in your community? (Factor loading = .76)

The scale measuring the Awareness of Prevention Activities (Prevention Aware) includes the following five survey items:

1) In the past 12 months, how much have you seen or heard about activities to stop people from giving or buying alcohol for teens? (Factor loading = .72)
2) In the past 12 months, how much have you seen or heard about activities to keep stores, bars, and restaurants from selling alcohol to teens? (Factor loading = .70)
3) In the past 12 months, do you recall hearing, reading or watching an advertisement about the prevention of substance abuse? (Factor loading = .46)
4) In the past 12 months, how much have you seen or heard about activities to discourage selling to intoxicated patrons? (Factor loading = .69)
5) In the past 12 months, how often have you seen or heard PSA's discouraging drinking and driving targeting Native Americans? (Factor loading = .50)

Three items are included in the factor measuring Norms about Drinking and Drinking and Driving (Alcohol Norms):

1) How do you feel about someone your age driving after drinking 1 or 2 drinks? (Factor loading = .82)
2) How do you feel about someone your age having 1 or 2 drinks nearly every day? (Factor loading = .80)

3) How much do people risk harming themselves physically and in other ways when they have five or more drinks of an alcoholic beverage once or twice a week? (Factor loading = .65)

Finally, two additional items loaded onto a factor for which no easy definition applied. In addition, when Cronbach's alpha coefficients were examined, it became obvious that these two items were barely correlated and the reliability was extremely poor. Therefore, these two items were not combined into a scale:

1) In the past 12 months, how much have you seen or heard about police arresting drunk drivers in your community? (Factor loading = -.54)
2) Thinking about where you live, how many restaurants and bars in your community offer drink specials such as happy hours, college night, or other discounts? (Factor loading = .74)

Additionally, one item did not load highly on any one factor. While important to the overall understanding of prevention in the community, they were excluded from being combined with other measures. These items were:

1) In the past 12 months, have you seen a DWI checkpoint, where drivers are stopped briefly by police to check for drunk drivers? (Highest Factor Loading = .23)

After completing the factor analysis, we also ran correlations on each of the items within each factor to get a reliability coefficient. Table 4 provides the standardized Cronbach's alpha for each factor. The five remaining factors had average reliability. A mean score was constructed for each of the factors.

Table 4: Reliability coefficients for the five strong factors from the factor analysis

Factor	Cronbach's Alpha
Factor 1: UDOC	α = .71
Factor 2: Perceived Risk	α = .71
Factor 3: Prevention Support	α = .79
Factor 4: Prevention Awareness	α = .62
Factor 5: Alcohol Norms	α = .65

Table 5 below reports the average score on each of the scales by group and year. In general, the average score decreased in most cases, which is not the desired direction for any of these scales. SPF SIG communities were more likely to significantly decrease although the decreases overall were relatively minimal. As mentioned previously, when examining the bivariate analyses we must remember that these analyses *do not* control for the differences between the samples with respect to age, race/ethnicity, sex, and other sociodemographic factors known to be associated with drinking and driving related behaviors. Therefore, these bivariate results are very likely confounded due to these existing differences between the samples. For

this reason, we also conducted regression analyses controlling for key socio-demographic measures and results are presented later in this section.

Table 5: Mean score on intervening variable scales by group and year; higher scores are better

	Comparison Communities				SPF SIG Communities			
	2008		2009		2008		2009	
Intervening Variable	Mean	95% CI	Mean	95% CI	Mean	95% CI	Mean	95% CI
Perception of risk associated with underage drinking and over consumption of alcohol (Range = 1 – 4)	2.20	2.12-2.27	2.16	2.12-2.20	2.25	2.22-2.29	2.06***	2.04-2.09
Perception of risk associated with drinking and driving (Range = 1 – 4)	1.76	1.69-1.84	1.82	2.34-2.88	1.75	1.72-1.78	1.69*	1.67-1.71
Support of local ATOD prevention efforts (Range = 0 – 3)	1.46	1.39-1.52	1.39	1.36-1.42	1.46	1.43-1.49	1.44	1.42-1.46
Awareness of local prevention activities (Range = 0 – 3)	0.90	0.85-0.95	0.89	0.86-0.91	1.03	1.00-1.05	1.00*	0.98-1.01
Drinking norms and drinking and driving norms (Range = 1 – 5)	3.94	3.86-4.01	3.72***	3.67-3.77	3.89	3.86-3.92	3.77***	3.74-3.80

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Results of Analyses with the SPF SIG Communities Only

We chose to examine just the SPF SIG recipients alone to see if changes in outcomes between 2008 and 2009 were significant. The following outcomes were examined:

1. Ever rode in a car driven by someone who had been drinking during the past 30 days
2. Ever drank one or more drinks during the past 30 days
3. Ever drank 5 or more drinks on an occasion during the past 30 days
4. Ever drove after having too much to drink during the past 30 days
5. Ever drove after drinking 5 or more alcoholic drinks during the past 30 days
6. Ever drove under the influence of alcohol in past 12 months
7. Perception of risk associated with underage drinking and over consumption of alcohol
8. Perception of risk associated with drinking and driving
9. Support of local ATOD prevention efforts
10. Awareness of local prevention activities
11. Drinking norms and drinking and driving norms

We ran probit and GLM regressions controlling for all sociodemographic measures previously mentioned. (Results not shown.) In summary, we found that among the SPF SIG sample there were no significant decreases for reported riding in a car with a driver who had been drinking, driving after having had too much to drink, driving after binge drinking, and driving while intoxicated in the past 12 months. However, reported drinking in the past 30 days did significantly decrease (Change in probability between 2008 and 2009 = -0.1743, $p < .0001$) and reported past 30 day binge drinking also significantly decreased (Change in probability between 2008 and 2009 = -0.3729, $p < .0001$). Looking at our scale measures, we find that perception of risk associated with underage drinking and over consumption of alcohol significantly decreased between 2008 and 2009 (Change in estimate between 2008 and 2009 = -0.1574, $p < .0001$) and in alcohol norms (Change in estimate between 2008 and 2009 = -0.0852, $p = .0004$). These last two findings are in the unintended direction. These negative changes are of considerable concern. It may reflect that messages addressing the associated risk of underage drinking and over consumption are not effective or more likely, that there is little widespread use of these messages. Alternatively, it may reflect that law enforcement is not focused on addressing these particular behaviors to the same extent as drinking and driving. It does not seem likely that these findings are the result of regression to the mean, because the mean perception score was 2.12 on a scale from 1 to 4. More lenient social norms around drinking and drinking and driving, may reflect less emphasis in the past year on changing social norms in the community, less effective social norming messages, or even less effective means of sharing these messages to the targeted audience.

Results of Analyses with the Comparison Communities Only

We ran probit and GLM regressions controlling for the influence of sociodemographic influences on the Comparison community sample only to see there were significant changes from 2008 and 2009 among the outcome and intervening variables. There no significant changes in reported riding a car with someone who had been drinking, past 30 day alcohol consumption driving after having had too much to drink, and driving after consuming 5 or more drinks. There was a statistically significant decrease in reported binge drinking among the comparison community sample. There was also a significant increase in reported driving while intoxicated in the past 12 months (Change in probability between 2008 and 2009 = 0.3175, $p = .001$). When examining the intervening variables, there were no significant changes from 2008 to 2009 in the perception of risk associated with underage drinking and over consumption of alcohol or awareness of prevention efforts. There was, however, a significant increase in the perception of risk of drinking and driving (Change in estimate between 2008 and 2009 = 0.109, $p = .03$). There were also significant decreases in support for prevention efforts (Change in estimate between 2008 and 2009 = -0.098, $p = .01$) and social norms around alcohol consumption and drinking and driving (became more lenient) (Change in estimate between 2008 and 2009 = -0.170, $p = .001$).

Regression Analyses Comparing SPF SIG and Comparison Communities in 2008 & 2009

Proc probit in SAS was used to model the probability or risk of the binary outcomes controlling for the influence of demographic characteristics on the outcome. (Proc logistic was

used to confirm the findings in the probit models and to get an r-square value, a measure of variance accounted for by the model, however, only results from the probits are presented in this report.) Proc GLM in SAS was used to model change in the ordinal outcomes controlling for the influence of demographic characteristics on the outcome. Specifically, we were interested in any statistically significant differences on the outcomes of interest between the SPF SIG communities and comparison communities and between respondents in 2008 and in 2009.

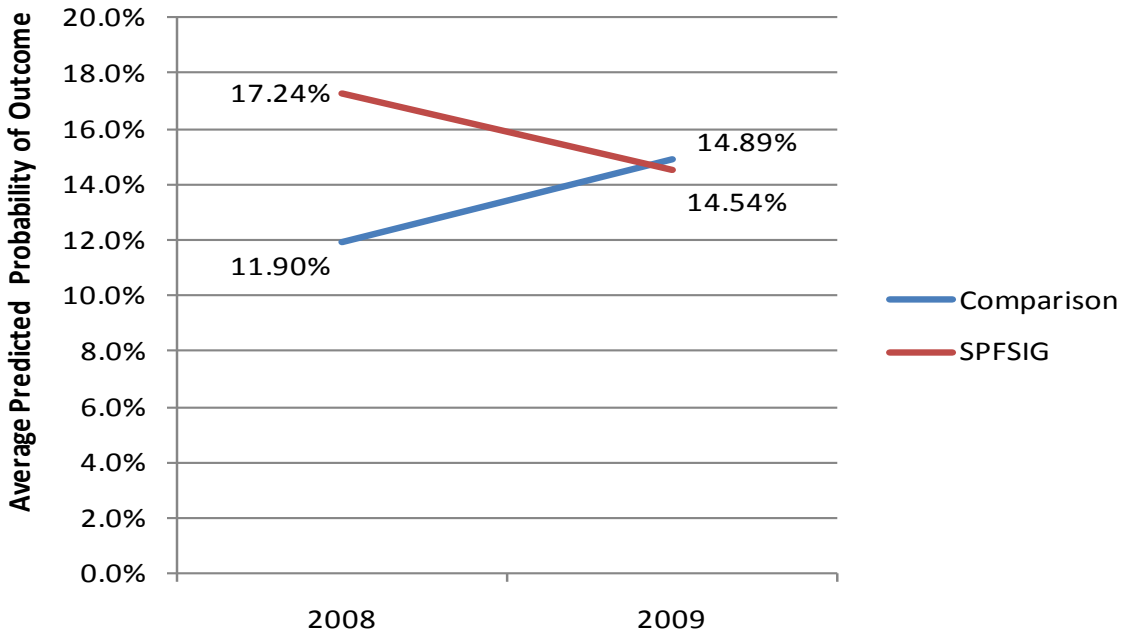
The probability analyses controlled for the influences on the outcome of the respondents' age, race/ethnicity, biological sex, length of time living in NM, language spoken at home, whether the respondents identified that he/she was a student, and age at first drink of alcohol. In the first set of models, the main variables of interest are the FY (2009 compared to 2008) and grouping measure (SPF SIG compared to Comparison). In the second set, an interaction term (group X year) was included to examine whether the outcome for each group varied by year depending on the group, after controlling for differences between the samples. Summaries of the results for each outcome are presented below. We present results of the basic model with no interaction term first, followed by results of the interaction model. Tables with results for all models are in Appendix A.

Outcome 1: Ever rode in a car driven by someone who had been drinking during the past 30 days (Responses: 0 = no, 1 = yes)

In the first model, biological sex was highly associated with having ridden in a car with someone who had been drinking. Compared to females, males had a significantly higher probability of ever having ridden in a car with someone who had been driving. Age was also significantly associated with the outcome. Compared to respondents over 45, those under 35 had a higher probability of ever having ridden with someone who had been drinking. Having lived in NM greater than five years was significantly associated with less probability of having done this compared to those who had lived in NM less than one year. Being a student was associated with a higher probability of having ridden in a car with someone who had been drinking. And for each year increase in the age at which one's first drink occurred, the probability of the outcome decreased by 3%. Compared to non-Hispanic whites, Hispanics and Native Americans had a marginally higher probability of reporting this behavior. After controlling for the sociodemographic measures, there were no significant effects of the year or group membership on the outcome. (See Table 2 in Appendix A.)

When the interaction term was included, there was no significant interaction between FY and group membership for this outcome. Being male, Native American, and under 35 years old were associated with significant increases in the probability of having ridden in a car driven by someone who had been drinking. Having lived in NM for more than 5 years was associated with lower probability, and those who were younger when consuming their first drink experienced greater probability of ever riding in a car driven by someone who had been drinking. Compared to non-Hispanic whites, Hispanics had a marginally higher probability of reporting this outcome. (See Table 3 in Appendix A.) Figure 4 below plots the average predicted probability of the outcome by year contingent on group membership after controlling for the sociodemographic variables. Although not statistically significant, we can see that on average the probability decreases among the SPF SIG sample and increases among the Comparison community sample.

Figure 4: The average predicted probability of riding in a car in the past 30 days with someone who had been drinking by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink



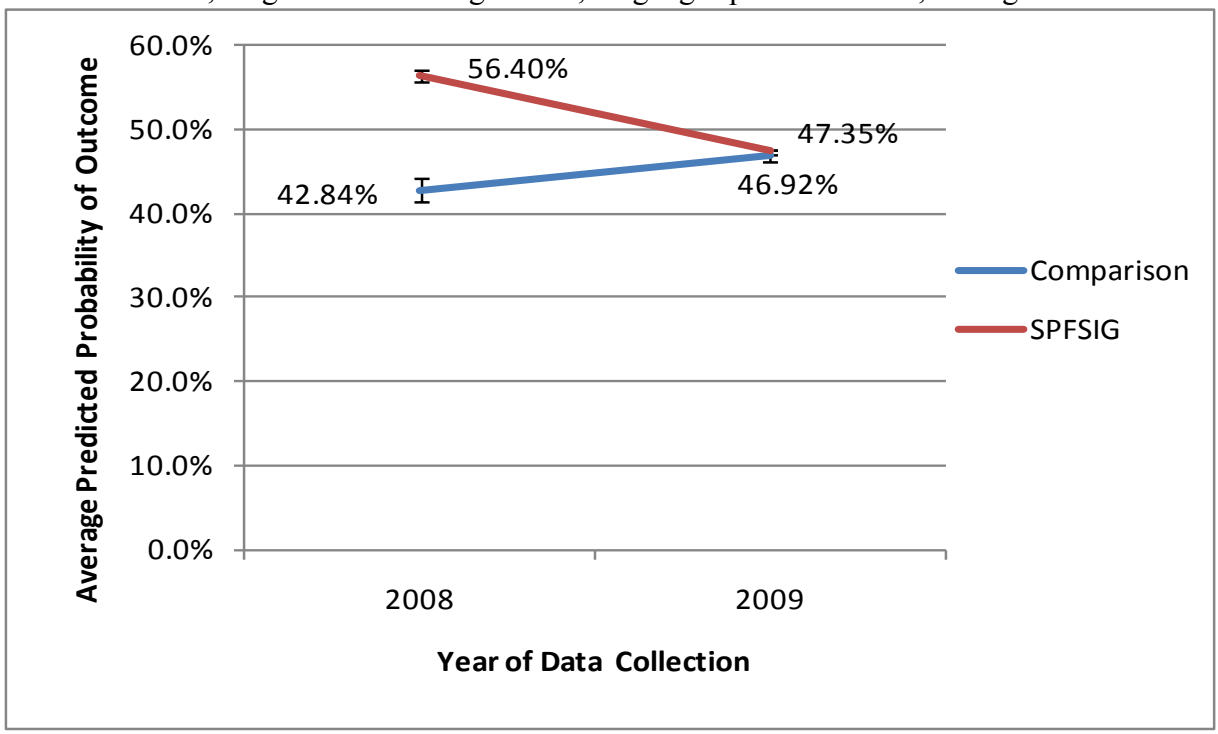
Outcome 2: Ever drank one or more drinks during the past 30 days (Responses: 0 = no, 1 = yes)

In the first model, males had a significantly higher probability of having drunk alcohol at least once in the prior 30 days when compared to females. Compared to non-Hispanic whites, Hispanics, Native Americans, and Others had a significantly lower probability of having drunk alcohol in the past 30 days. Respondents 21 to 34 had a higher probability of drinking in the past 30 days compared to respondents 45 and older, and students had a higher probability of consuming alcohol in the past 30 days when compared to non-students. Respondents under 21 did not show a significantly greater probability of consumption of alcohol within the past 30 days when compared to respondents 45 and older. Those living in NM more than five years, those who often spoke a language other than English at home, and those who were older when they had their first drink of alcohol had lower probabilities of drinking alcohol in the past 30 days. Respondents in 2009 had a lower probability of drinking in the past 30 days than respondents in 2008. There was no association of group membership with the outcome. (See Table 4 in Appendix A.)

Similarly to the previous model, in the interaction model biological sex, race/ethnicity, age, student status, living in NM more than 5 years, speaking a language other than English at home, and age of first alcoholic drink were all significantly associated with past 30 day alcohol consumption. There was also a significant interaction of year by group membership. After controlling for the sociodemographic differences between the samples, the probability for

drinking in the past 30 days among SPF SIG respondents decreased between 2008 and 2009 whereas the comparison group increased. (See Table 5 in Appendix A.) Figure 5 below graphs the average predicted probability by year and group. This would provide evidence that the SPF SIG prevention efforts may be having a significant positive impact on past 30 day drinking in those communities where SPF SIG prevention strategies are being implemented.

Figure 5: The average predicted probability of having drunk alcohol in the past 30 days by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink

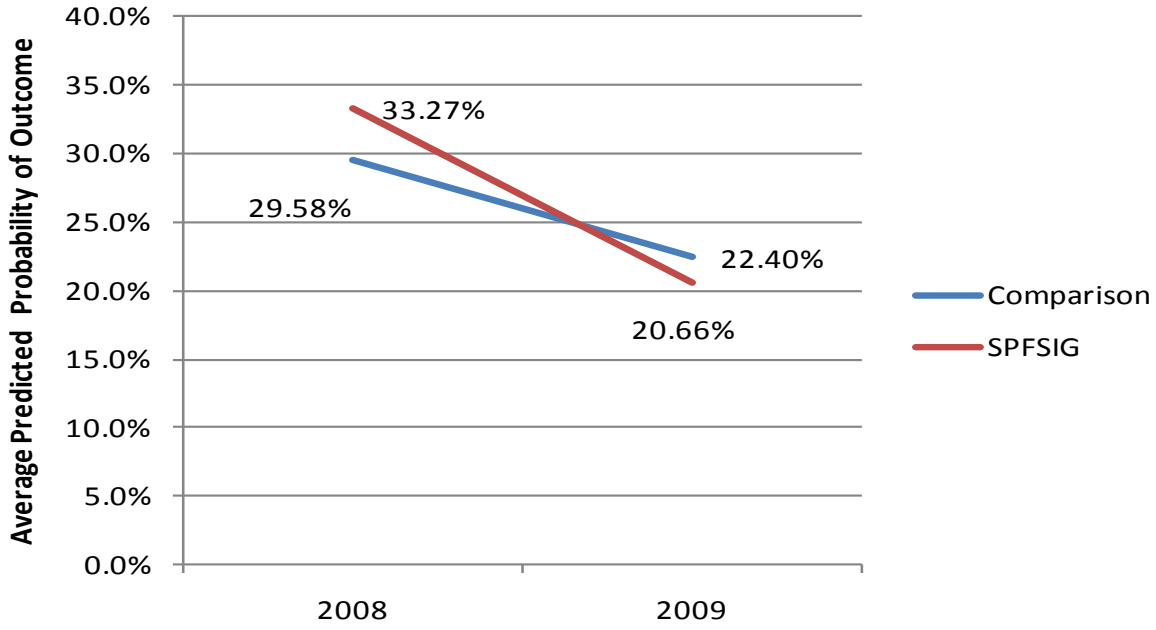


Outcome 3: Ever drank 5 or more drinks on an occasion during the past 30 days (Responses: 0 = no, 1 = yes)

In both models, demographic measures significantly associated with binge drinking include biological sex, race/ethnicity, age, student status, and language spoken at home. Males had a higher probability of binge drinking compared to females. Hispanics/Latinos and Native Americans both had significantly higher probabilities of binge drinking when compared to non-Hispanic Whites. Respondents under 45 reported significantly more binge drinking than those 45 and older. Students binge drink more than non-students, and those who grew up in a home that often spoke a language other than English had significantly lower probability of binge drinking than those who did not. In the model without the interaction term, respondents in 2009 had a significantly higher probability of binge drinking compared to respondents in 2008. There was no significant interaction between group and year in the model with the interaction term. (See Tables 6 & 7 in Appendix A.) Figure 6 below plots the average predicted probability of the outcome by year contingent on group membership after controlling for the sociodemographic variables. Although the interaction is not statistically significant, this graph indicates that on

average the probability of binge drinking in SPF SIG Communities decreased more than in the Comparison communities.

Figure 6: The average predicted probability of having drunk 5 or more alcoholic beverages in the past 30 days by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink

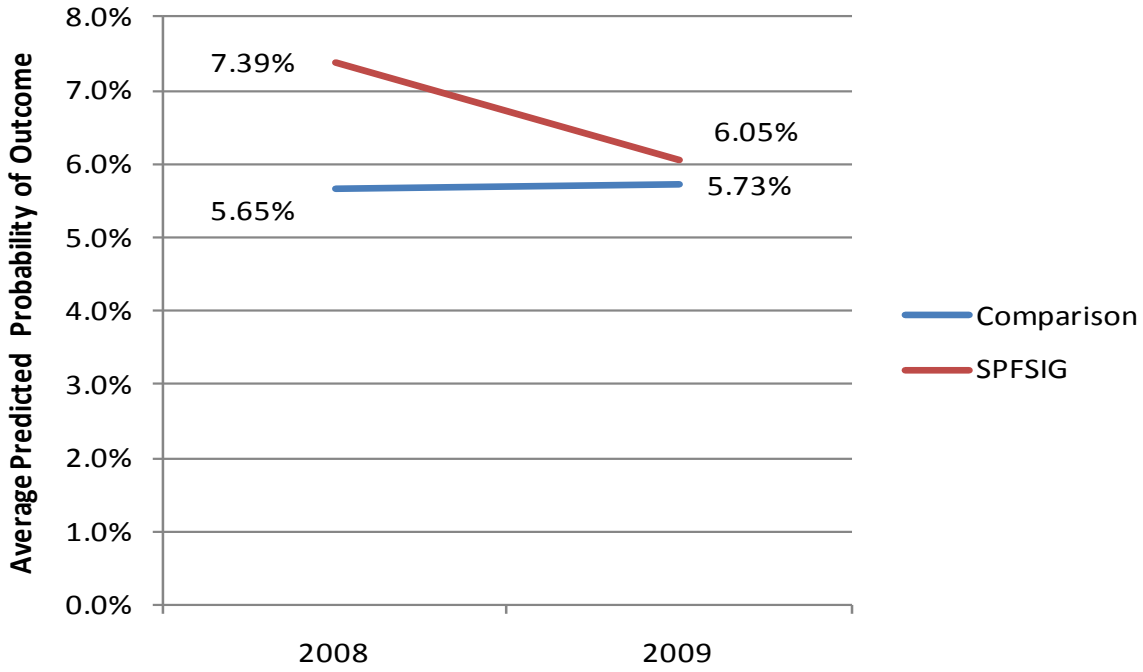


Outcome 4: Ever drove after having too much to drink during the past 30 days (Responses: 0 = no, 1 = yes)

Demographic measures significantly associated with greater probability of having driven in the past 30 days after having too much to drink include race/ethnicity, age, biological sex, and student status. Males have greater likelihood of binge drinking compared to females. Hispanics/Latinos have significantly higher probability of binge drinking when compared to non-Hispanic Whites. Respondents under 35 are significantly more likely to binge drink than those 45 and older. The 35 to 44 had no greater likelihood than respondents 45 and older. Students are more like to binge drink than non-students. In the model without the interaction term, there was no association of the group on the outcome but 2009 was significantly associated with lower probability of having driven after having too much to drink compared to 2008. There was no significant interaction between group and year in the model with the interaction term. (See Tables 8 & 9 in Appendix A.) Figure 7 below plots the average predicted probability of the outcome by year contingent on group membership after controlling for the sociodemographic variables. Although the interaction was not statistically significant, the graph indicates that the past 30 day driving after having too much to drink is decreasing in the SPF SIG Communities as

opposed to the Comparison communities where the probability remains essentially the same over the two years.

Figure 7: The average predicted probability of having driven a car in the past 30 days after perhaps having too much to drink by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink

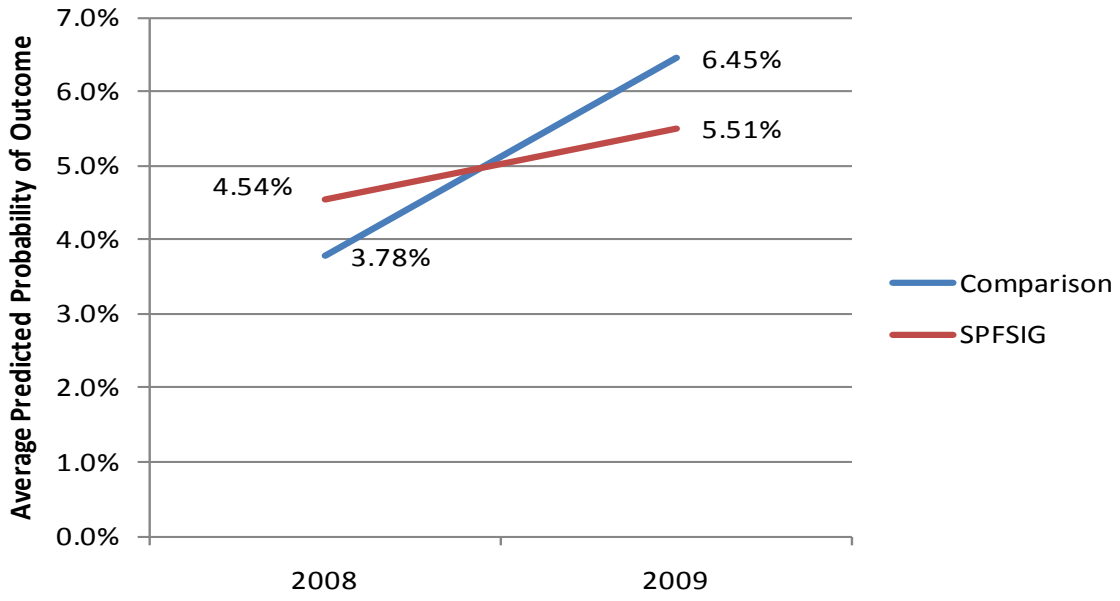


Outcome 5: Ever drove after drinking 5 or more alcoholic drinks during the past 30 days (Responses: 0 = no, 1 = yes)

As with the previous outcomes, biological sex, race/ethnicity, and age were all significantly associated with greater probability of having driven after consuming 5 or more alcoholic beverages in both models. Males had a higher probability than females and Hispanic/Latinos and non-Hispanic Native Americans had a higher probability than non-Hispanic whites to drive after consuming 5 or more alcoholic drinks. Similarly, those under age 35 had significantly greater probability of having driven after binge drinking compared to respondents 45 and over. Those 35 to 44 had no increased probability for this behavior compared to those 45 and over. In the model with no interaction term, group membership was not significantly associated with the outcome, however, year was. In this case, respondents in 2009 had greater probability of having engaged in the behavior than respondents in 2008. However, in the interaction model, there was no significant interaction between group and year after controlling for sociodemographic differences between the samples. (See Tables 10 & 11 in Appendix A.) Figure 8 below plots the average predicted probability of the outcome by year contingent on group membership after controlling for the sociodemographic variables. The

probability of binge drinking and driving is increasing among respondents in the Comparison sample more rapidly than in the SPF SIG sample.

Figure 8: The average predicted probability of having driven a car in the past 30 days after drinking 5 or more alcoholic beverages by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink



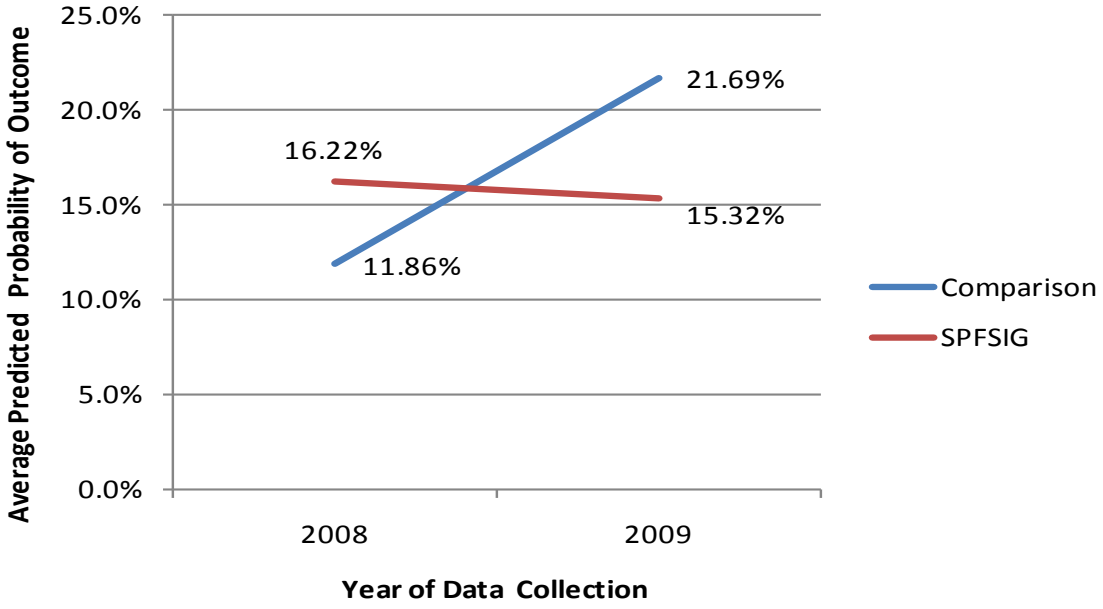
Outcome 6: Ever drove under the influence of alcohol in past 12 months (Responses: 0 = no, 1 = yes)

In both models, there was no statistically significant effect of race/ethnicity although compared to non-Hispanic whites, both Hispanic/Latinos and non-Hispanic Native Americans were at slightly increased probabilities of driving under the influence of alcohol in the past 12 months. Age was significantly associated with the outcome such that respondents under 35 had higher probability of driving under the influence in the past 12 months compared to those 45 and older. Those 35 to 44 were not significantly different from those 45 and older. Males reported a higher probability to engage in this behavior when compared to females, as were students when compared to non-students. Compared to respondents living in NM less than 1 year, those living in NM between 1 to 5 years and more than five years had significantly lower probability of having driven under the influence in the past year. For this outcome there was a significant association of group membership. SPF SIG community respondents had a significantly lower probability of reporting this behavior than those in comparison communities. The time measure, year, also approached significance. Respondents in 2009 had a slightly greater probability of reporting this behavior when compared to respondents in 2008. (See Table 12 in Appendix A.)

In the interaction model, a significant group by year interaction was found for this outcome. (See Table 13 in Appendix A.) Figure 9 below plots the average predicted probability

of the outcome by year contingent on group membership after controlling for the sociodemographic variables. In the SPF SIG communities there was a slight decrease over the two years whereas in the Comparison communities there was a sharp increase. The increase among the Comparison community sample necessitates further thought on what may be occurring in those communities that may account for this sharp increase.

Figure 9: The average probability of having driven a car in the past 12 days while under the influence of alcohol by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink



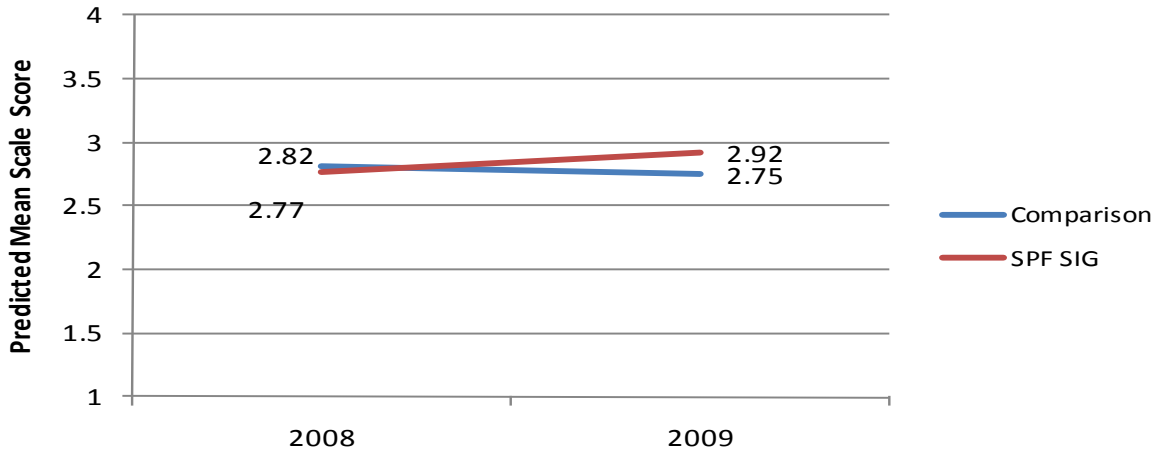
Outcome 7: Perceived risk of arrest associated with underage drinking and over consumption of alcohol (UDOC mean scale score; Range 1-4)

The range for the UDOC scale is from1 to 4 where 1 equals not at all likely and 4 equals very likely. Higher scores indicate greater perception of risk. The model with no interaction reveals that males and Hispanics perceive significantly higher risk with getting caught for underage drinking and over consumption of alcohol compared to females or non-Hispanic whites. In addition, as age at first drink increases so does the perception of risk. Both group and year were significant. Those in the SPF SIG perceived greater risk than the comparison group, and 2009 respondents perceived greater risk than 2008 respondents. (See Table 14 in Appendix A.)

Results were similar in the model that included the interaction of group by year. Males continue to perceive a greater risk than females and Hispanics perceive a greater risk than non-Hispanic whites. In addition, those who report a race/ethnicity other than the Hispanic/Latino or Native American also perceive a greater risk than non-Hispanic whites. Age at first drink

continued to be positively associated with greater perceived risk. Finally there is a significant interaction of group membership by year. (See Table 15 in Appendix A.) Figure 10 graphs the average predicted scores by group and year. The average scale score increases for the SPF SIG sample and decreases for Comparison communities. Of some concern is that the overall means for both groups are not higher. On a scale ranging from 1 to 4, ideally, we would hope that average scores would range between 3 and 4 at least among the SPF SIG Communities. SPF SIG Communities may want to consider how they can increase the perceived risk of being arrested for underage drinking, provision of alcohol to minors or over serving intoxicated patrons by using media and working with local law enforcement.

Figure 10: The effect of group membership dependent on year on the perception of risk of underage drinking and over consumption of alcohol, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink. (Range 1-4, where 1 = not at all likely and 4 = very likely)

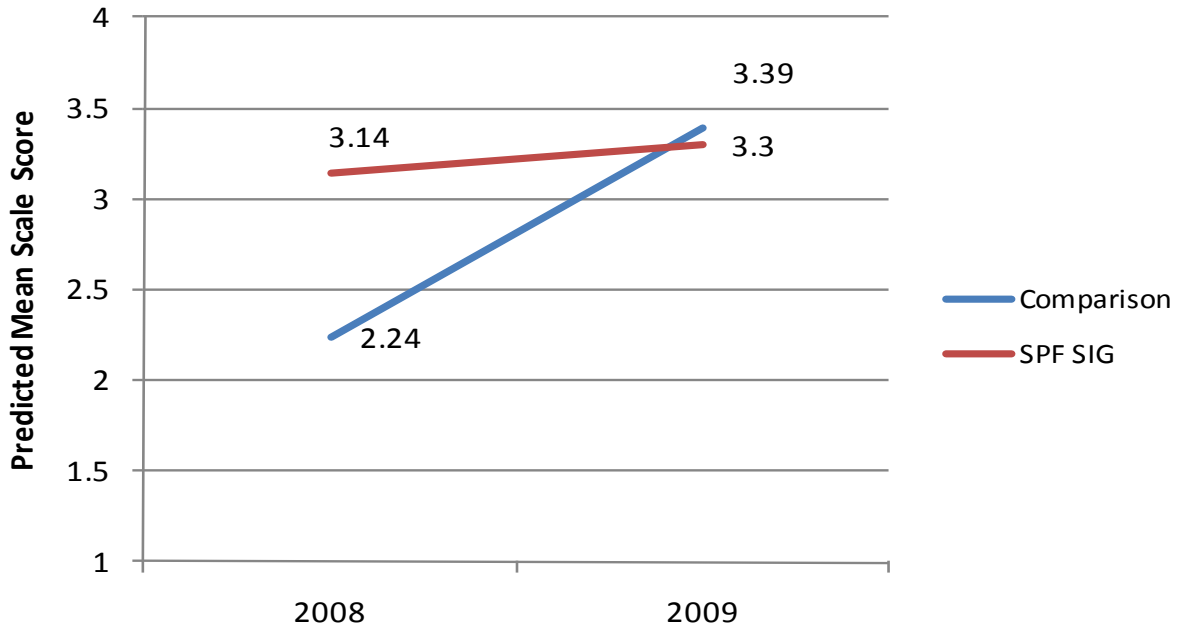


Outcome 8: Perception of risk associated with drinking and driving (Perceived risk mean scale score; Range 1-4)

The range for the perception of risk scale is from1 to 4 where 1 equals not at all likely and 4 equals very likely. Higher scores are indicative of a greater perception of risk. Many demographic measures are associated with the perception of risk of being caught, arrested, and convicted of drinking and driving. In particular, being male, Hispanic, Native American, or other race are all associated with an increase in perceived risk. Compared to those 45 years old and older, respondents under 21 years of age as well as 25 to 34 perceive a significantly lower risk of drinking and driving consequences. Respondents 21 to 24 also perceive a lower risk of consequences associated with drinking and driving, with results for this age range coming close to significance. Students perceived greater risk than non-students. Age at first drink was again positively associated with the perceived risk of drinking and driving consequences. Additionally, those in the SPF SIG group perceived greater risk than those in the comparison group. (See Table 16 in Appendix A.)

In the interaction model, biological sex, race/ethnicity, age, student status, and age at first drink, were all associated, or trending toward association, with the perceived risk of legal consequences for drinking and driving. There is also a significant interaction between group membership and year of data collection. (See Table 17 in Appendix A.) Figure 11 below graphs the predicted mean score on the perceived risk scale by year and age. After controlling for the sociodemographic variables, the SPF SIG sample increases their overall scale score as does the Comparison sample. The Comparison sample actually begins lower and increases more dramatically over the two years than the SPF SIG sample. There are likely two reasons for this difference between groups. There is possibly a spill-over effect from the SPF SIG communities to the Comparison communities that might affect the perception of risk. In addition, and perhaps more likely is that with SPF SIG communities already perceiving the risk to be rather high in 2008, it is statistically more unlikely to increase as dramatically on a 4 point scale.

Figure 11: The effect of group membership dependent on year on the perception of risk of being caught, arrested and convicted of DWI, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink. (Range 1-4, where 1 = not at all likely and 4 = very likely)



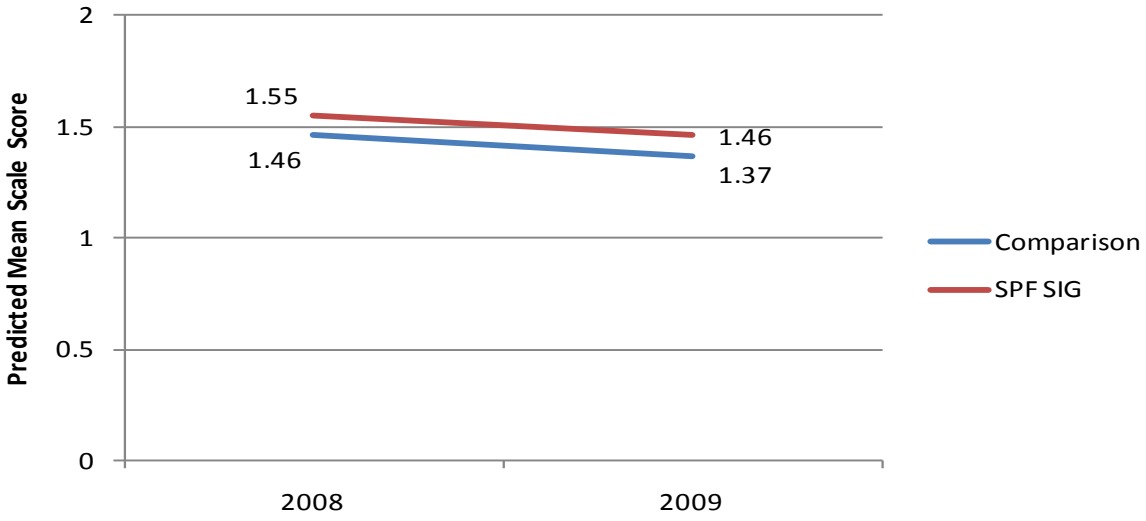
Outcome 9: Support of local ATOD prevention efforts (Prevention Support mean scale score; Range 0-2)

The range for the Prevention Support scale is from 0 to 2 where 0 equals no support and 2 equals a lot of support. Higher scores are indicative of more support. For the basic model, males were less supportive of prevention efforts than females, as well those who identified as a race or ethnicity other than non-Hispanic white. Additionally, being under the age of 25 was significantly associated with less support for prevention efforts when compared to respondents 45 and older. Students were also significantly less supportive than non-students. Those who had

lived in NM for 5 or more years, those who spoke a language other than English at home, those who were older when they first drank alcohol, and respondents in the SPF SIG group were more supportive of prevention efforts. Those participating in the survey in 2009 were generally less supportive of efforts to prevent drinking and driving as well as underage drinking when compared to 2008 participants. (See Table 18 in Appendix A.)

The results of the model that included the interaction term were almost identical to the basic model, with the exception of group membership no longer showing a significant difference in support between SPF SIG participants and the comparison group. Additionally, there was no significant interaction between year and group membership. (See Table 19 in Appendix A to view the table.) Figure 12 graphs the predicted average score on the prevention support scale using values based on the model with the interaction term. As is the case in the model without the interaction term, we can see that overall, the SPF SIG communities are generally more supportive than the Comparison communities, although this difference is minimal, and support decreases slight between 2008 and 2009 for both groups. Although support is rather high already SPF SIG communities may want to focus on strategies that will build community support for prevention efforts in order to increase sustainability when the grant ends.

Figure 12: The effect of group membership dependent on year on support for prevention efforts in the community, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink. (Range 0-2, where 0 = none and 2 = a lot)

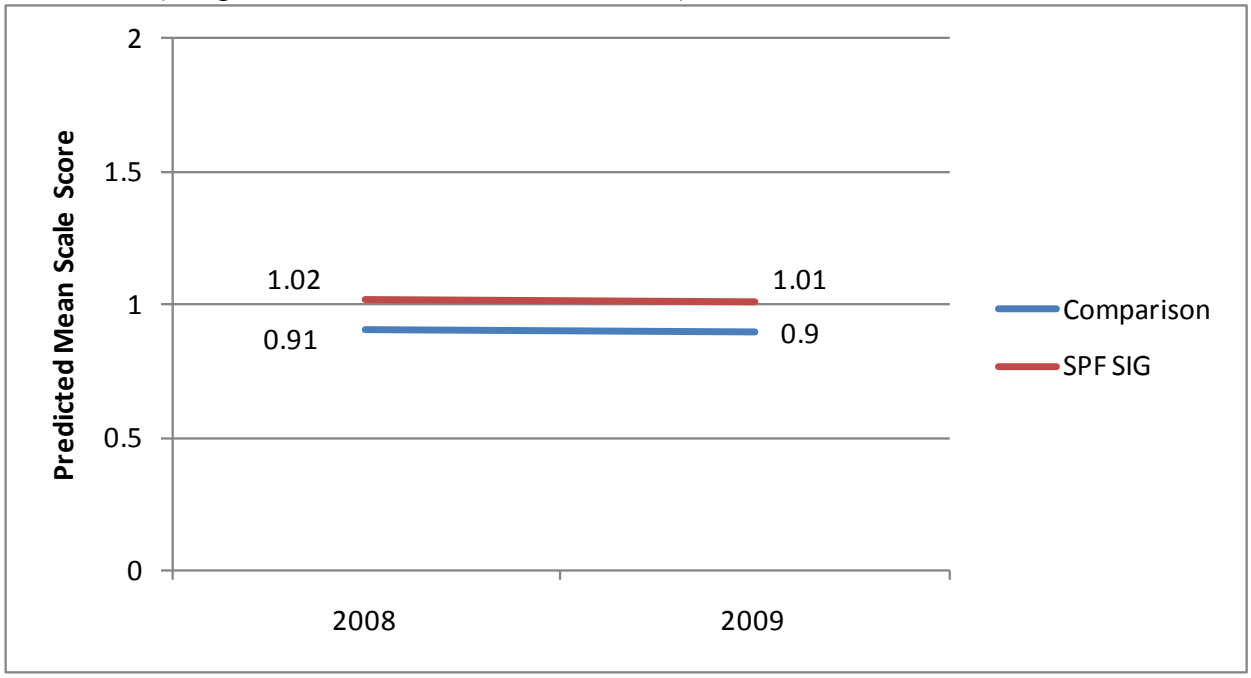


Outcome 10: Awareness of local prevention activities (Prevention Awareness mean scale score; Range 0-2)

The range for the Prevention Awareness scale is from 0 to 2 where 0 equals no awareness and 2 equals a lot of awareness. Higher scores are indicative of more awareness. Sociodemographic measures were generally not related to one's awareness of local prevention activities. Males were more likely than females to be aware of prevention messages and efforts in their community as were those who spoke a language other than English at home and were older when they first drank alcohol. Finally those in the SPF SIG group were more aware of prevention activities than the comparison community respondents but those in 2009 were not significantly different compared to 2008 respondents. (See Table 20 in Appendix A.)

When the interaction term is included in the basic model, no major differences were found between the two models. Thus, the results described above also hold true for the interaction model. Additionally, the interaction between group and year was not significant. (See Table 21 in Appendix A.) Figure 13 graphs the predicted average values on the prevention awareness scale based by year and group based on the values in the interaction model. As already mentioned, we can see that the SPF SIG communities are slightly more aware of the prevention efforts going on in their communities compared to the Comparison communities but the level awareness does not change over time. This would indicate that SPF SIG communities probably need to up their use of local media and coverage of prevention efforts.

Figure 13: The effect of group membership dependent on year on awareness of prevention efforts in the community, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink. (Range 0-2, where 0 = none and 2 = a lot)

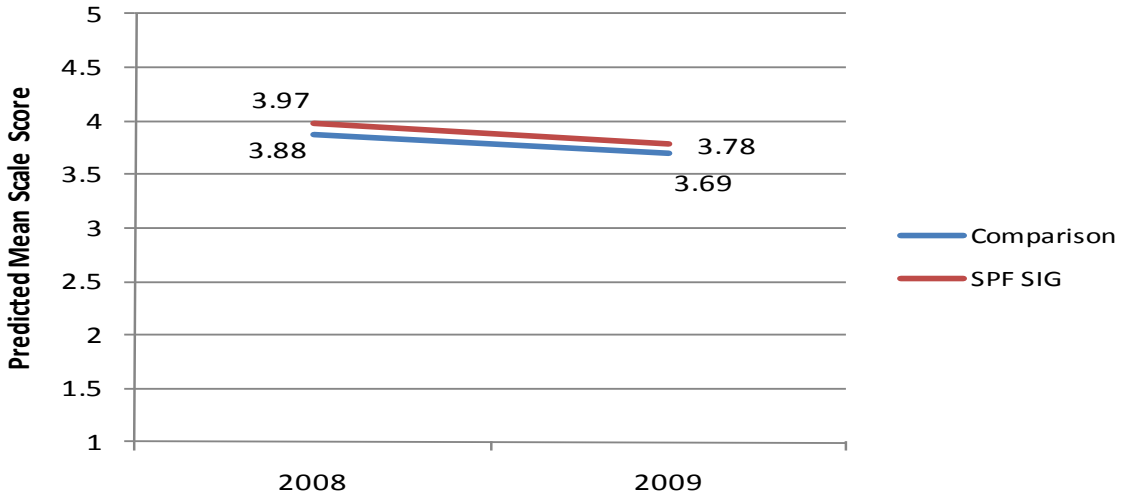


Outcome 11: Drinking norms and drinking and driving norms (Alcohol Norms mean scale score Range 1-5)

The range for the Alcohol Norms scale is from 1 to 5 where 1 equals least restrictive normative beliefs and 5 equals most restrictive normative beliefs. Higher scores are desired on this scale. The social norms surrounding alcohol consumption and driving are strongly influenced by sociodemographic characteristics including biological sex, race/ethnicity, and age. Males reported more lenient, less restrictive, norms toward alcohol consumption and driving after drinking when compared to females, as did respondents less than 35 years old compared to respondents 45 and older. Hispanics and Native Americans reported more disapproval of alcohol consumption and drinking and driving compared to non-Hispanic whites. Those having lived in NM for more than 5 years were more disapproving as were those who grew up speaking a language other than English at home and those who were older when they had their first drink of alcohol. Those in the SPF SIG group indicated greater disapproval compared to those in the comparison group. Finally participants in the 2008 indicated greater disapproval of drinking as well as drinking and driving than participants in 2009. (See Table 22 in Appendix A.)

The results from the model with the interaction term were almost identical to those found in the first model, with the exception that respondents under 21 no longer had significantly more lenient norms compared to those 45 and older. The interaction term between group and year was only marginally significant at p= .0528. (See Table 23 in Appendix A.) Figure 14 graphs the average score on the Social Norms scale by year and group based on values from the interaction model. We can see that the values differ only marginally between SPF SIG and Comparison communities and the overall decline is minimal. SPF SIG Communities may want to consider ways of increasing more restrictive social norms particularly for underage drinking, binge drinking and drinking and driving.

Figure 14: The effect of group membership dependent on year on social norms around alcohol consumption and drinking and driving, controlling for biological sex, age, race/ethnicity, student status, length of time living in NM, language spoken at home, and age at first drink. (Range 1-5, where 1 = least restrictive and 2 = most restrictive)



Results of 2009 Qualitative Data Analyses

Survey respondents in FY09, like in FY08 were allowed to give their own voice to the community survey by responding in their own words to the last question about anything else they would like to share. Question 44 responses can be particularly useful to SPF SIG advocates who wish to provide a community-level voice to concerns about drinking and drinking and driving, as well as help provide a "bird's eye view" of what New Mexicans are thinking about these issues.

Responses to both comparison and SPF SIG communities were coded using QSR NVivo 8, using the same intervening variable-based codes that were derived the previous year. Based upon the coded responses, the following summaries were derived of the dominant themes that emerged. Overall in FY09, respondents demonstrated considerable concern about DWI and UAD, and support for increasing efforts to reduce these problems.

Several major themes emerged from the responses of study participants. First, participants were concerned about the widespread acceptability of drinking and drunk driving in general. Second, they discussed underage drinking, especially emphasizing the ease with which underage individuals were able to access alcohol. Third, participants requested that more law enforcement resources be made available to deal effectively with drunk driving and with underage drinking. Fourth, they spoke of their concerns regarding the judicial system, and urged the creation of stricter laws. Fifth, participants discussed the need for prevention, especially for youth. Finally, they suggested that more needed to be done to support recovery from alcohol addiction.

Norms and Acceptability of Drinking and Drunk Driving

Participants almost unanimously expressed their concern with the general acceptability of drinking and driving in their communities. Drinking and drinking, they said, was "very bad," "extremely rampant," "a big problem," and "very prevalent." One survey participant even shared that her "neighborhood is so bad with drinking and driving that we do not even go out after dark unless we have to." Many suggested that the issue of drinking and driving needed to be addressed at a macro level. One respondent stated, "We need to change the culture of our area where it concerns drinking and driving and young people." Another individual agreed, sharing that New Mexico needed "a cultural shift that de-emphasizes the glory of drinking and getting drunk." Community social sanctioning, these responses indicated, was effective and needed to be extended.

Underage Drinking and Access to Alcohol Underage

Respondents agreed that underage drinking and underage drinking and driving were "an epidemic," "a bigger issue than most people think," "very bad," "common," "a huge problem," "very common and very accepted," "a huge issue," and "a terrible problem." Especially contributing to this situation was the extreme ease with which youth were able to gain access to alcohol. One survey participant stated, "In our community…I feel it is very easy for our youth to get liquor," while another said he was "blown away by how easy it is for teenagers to buy

alcohol." A third survey participant maintained that "alcohol is ridiculously easy to get; teens can get it anywhere at any time." One respondent even shared her opinion that "there is no way to keep the underage from getting alcohol." Youth were able to access alcohol from family members, neighbors, friends, or through direct purchase at retail outlets. Survey respondents advocated for more consistent ID checks.

While a few survey respondents maintained that it was appropriate for parents to supply alcohol for their underage children at special occasions such as weddings, the vast majority expressed extreme disapproval of parents giving alcohol to underage youth. Participants recommended both increased education for parents, and strict prosecution of family, friends, or retailers caught supplying alcohol to youth under the age of 21.

Need for Additional Law Enforcement

One solution that survey respondents suggested in order to address the issue of drinking and driving, and of underage drinking, was to increase police presence and effectuality in their communities. Many respondents reported that there were not enough police in their communities, and that the police who were present were slow to respond, especially to calls to the DWI hotline. It was widely acknowledged that the existing police were not able to do their job effectually, as they were spread thin over great geographic areas. Additionally, a great number of respondents expressed the opinion that friendship and family ties prevented the fair enforcement of laws. In the words of one survey participant, although police did arrest individuals for drunk driving, "if the police officer knows you or your family, they send you on your way." The most widespread request was for more DWI checkpoints in the respondents' communities.

However, several survey participants discussed negative experiences with law enforcement, and suggested that racial profiling that targeted Native Americans was very prevalent and needed to be eradicated.

Need for Stricter Laws and Prosecution

The most common response of survey respondents to this question was that stricter laws and more consistent prosecution and enforcement of current laws was needed to deal effectively with the issues of drunk driving and underage drinking endemic to the state of New Mexico. Especially frequently expressed was a strong disagreement with returning repeat DWI offenders to the streets. From arrest to conviction, respondents urged that the most stringent penalties be brought to bear.

Need for Prevention, Especially Youth-Focused

While they urged stronger enforcement of laws and stricter penalties, participants also requested more prevention efforts, especially those focused at youth. More education and information for all community members was requested, in order to "show the disadvantages of drinking." Survey respondents pointed to the need for alternative programs, in order to provide youth with activities not associated with alcohol and to offer an alcohol-free lifestyle as an option. School-based programs were suggested as a needed venue for alcohol and drug use

prevention, and several respondents lamented the disappearance of DARE programs in their schools.

A great number of survey respondents asked for an increase in safe-ride programs or expansion of public transportation systems.

Need to Address Issues of Addiction

Finally, survey respondents urged that programs were needed to address alcoholism and other drug addictions. One participant stated the need for "more grant-funded, community-based programs…with materials that are culturally related to our youth." Several respondents indicated that incarceration without addressing issues of addiction could not solve the underlying issues that led to severe community problems with drinking and driving.

Discussion

Bivariate analyses indicated that SPF SIG communities were out performing Comparison communities on most measures of interest including outcome measures of drinking and drinking and driving behaviors. However, they also indicated that SPF SIG communities were doing worse than Comparison communities on addressing changes in the intervening variables. Because the samples were so varied both between years and between groups, it was necessary to use regression techniques to help control for these differences in the four samples. Regression analyses indicated that SPF SIG communities were in almost all cases showing positive trends in reported behavior and intervening variables. In regression analyzes controlling for the influences of sociodemographic measures, statistically significant changes between 2008 and 2009 among the SPF SIG sample only included decreasing past 30 day alcohol use and past 30 day binge drinking. On the other hand, there was also a significant decrease in the perception of risk around underage drinking and over consumption of alcohol and a change in alcohol social norms becoming significantly more lenient. Positive changes in consumption behavior and drinking and driving is important, however, given that we are predicting that changes in the intervening variables will cause change in the behaviors, then we would expect that the intervening variables would not show changes in directions opposite from what was predicted. However, we have not actually tested the strength of associations between the intervening variables and outcomes in this report and additional analyses are required to see if our theory of change is accurate. In addition, the National Highway Transportation Safety Administration (NHTSA) has funded the "Five County DWI Project" in Bernalillo, San Juan, McKinley, Rio Arriba, Dona Ana, and the latecomer, Santa Fe counties. Funds were used primarily for extra DWI law enforcement officers and media (both statewide and non-traditional local media folks on the ground in those counties. Of these now 6 counties, only one is not also a SPF SIG community (and it happens to be a comparison community), meaning these 5 communities may have additional change above and beyond the influence of the SPF SIG interventions or alternatively, the change we are seeing in our SPF SIG data may be *because* of the 5 NHTSA funded counties and the effect of the Five County DWI Project rather than the SPF SIG interventions. Therefore, additional analyses will need to be conducted examining these 5 counties compared with other SPF SIG communities and comparison communities.

Overall, these findings indicate that the environmental prevention strategies conducted within the SPF SIG communities may be creating positive changes in drinking and driving behavior in those communities. Over the next year, SPF SIG communities should continue to increase media efforts targeted towards increasing the perception of risk. They may need to particularly address the legal issues of underage drinking and serving intoxicated patrons while simultaneously working with local law enforcement to increase efforts to stop underage drinking and serving of alcohol to intoxicated patrons since this is one area where there is slightly less perceived risk. The efforts of local law enforcement to enforce the alcohol laws need additional press coverage to increase the visibility of those efforts. Most respondents indicated that they were very supportive of prevention efforts and yet felt that there was still a long ways to go. Communities need to build on this local support to encourage local law enforcement and government entities to strengthen their efforts. In addition, these grassroots efforts could be used to also influence state law makers to create tougher laws and sentencing for alcohol-related crimes.

IV. Family Assessment Scale: Ages 0-6

Background

Prevention programs targeting 0 through 6 year olds work with the family to improve parenting skills and family interaction, and essentially create a safer and more supportive environment for the child. The developmental hypothesis behind these programs is that strong positive family bonding protects against later substance use. The Family Assessment Scale (FAS) was designed to assess 10 different constructs associated with the ability to resist ATOD later use. These constructs are:

- Home Environment
- Social Support
- Social Services utilization
- Parenting skills
- Family interaction
- Child well-being
- Parent/child dysfunctional interaction
- Perception of the risk associated with ATOD use
- Adult GPRA past 30 day alcohol use to intoxication & other drug use
- Adult GPRA past 30 day tobacco use

During FY 08, five sites received funds to address ATOD prevention among 0-6 year olds and their families. Sites provided one of the following evidence-based curriculums: *Parents as Teachers, Effective Black Parenting Program, Dare to be You, Meld Nueva Familia*, or *Strengthening Families*.

Parents as Teachers

Parents as Teachers (PAT) is an international, early childhood parent education and family support program serving families throughout pregnancy until their child enters kindergarten, usually at age 5. The program is designed to enhance child development and school achievement through parent education accessible to all families. It is a universal access model. Activities include personal visits to participants during which PAT certified parent educators help parents understand and have appropriate expectations for each stage of their child's development; group meetings that serve as a forum for parents to share experiences; developmental screenings to assess child's health, hearing, and vision; and linkage to a resource network for services outside the scope of the PAT program. The protective factors addressed by PAT are social connectedness, access to services, attitudes towards use, family communication, and family management skills.

Effective Black Parenting Program

The EBPP was originally developed for parents of African American children aged 2 to 12. Most of its evaluation studies have been conducted with this population. However, since beginning the national dissemination of the program in 1988, the program has been successfully

used with teenage African American parents and their babies, and with African American parents of adolescent children. Thus, its widespread usage has been with parents whose children range from 0 to 18**.** EBPP is a cognitive-behavioral program designed to foster effective family communication, healthy African-American identity, extended family values, child growth and development, and healthy self-esteem.

Dare to Be You (DTBY)

The Dare to Be You program is a curriculum based project that was founded in 1979 and is designed to reduce poor outcomes among children, especially alcohol, tobacco and other drug use, by increasing resiliency factors and reducing risk factors in families with young children. The target population is 3-5 year old children. Program facilitators encourage parent input, support, and participation. Sessions include Family Management Skills and Attitudes, Communication Skills, Positive Disciplining, Self Concept, Showing Love and Affection, Family Planning, and Social Skills.

Meld Para Nueva Familia

The Teen Parent Center (TPC) is a service of the Santa Fe Public Schools which provides onsite child care, parenting, pre-natal, and life skill classes, academic tutoring, counseling, and case management services to pregnant and parenting adolescents. The specific mission of the TPC is to prevent negative outcomes for children of teen parents by providing high-quality, comprehensive support, and educational services that enable teenage parents to complete high school and to function as healthy, effective, and nurturing parents and community members.

The Meld curriculum *Para Nueva Familia* is implemented with all individuals who receive services at the TPC. The objectives of this curriculum include: 1) increasing knowledge of the dangers of alcohol, tobacco, and other drug use 2) increasing knowledge of childhood development; 3) improving parenting skills among adolescent parents and their families; 4) improving parent/child attachment; 5) improving parent/child interactions; and 6) improving the developmental health of infants and toddlers. Meld prepares and supports teen parents in positive parenting, self-esteem, to continue in school, healthy relationships, resources to be a positive parent, and to delay childbearing until education has been completed. Meld is delivered by trained staff members and a peer mentor who was a graduate of the program. The students also participate in teen panels in middle and high school classes to deliver presentations on teen pregnancy and the effects of alcohol, tobacco, and other drugs.

Strengthening Families Program

Strengthening Families is a family-focused initiative that increases family management skills, reduces the likelihood for substance abuse and other problems associated with the teen years, and reduces family-related risk factors for adolescent problem behaviors. The curriculum follows an interactive model where parents and youth meet in different sessions for one hour then are united to participate in family activities the second hour. The program is designed to help parents/caregivers learn nurturing skills that support their children. It teaches parents/caregivers how to effectively discipline and guide their youth. The program is also

designed to give youth a healthy future orientation and an increased appreciation of their parents/caregivers. It also teaches youth skills for dealing with stress and peer pressure.

Methods

Parents or guardians completed the survey instrument (New Mexico Family Assessment Scale) before participation in a curriculum and again after completion of the curriculum. The table below captures the risk and protective factors for ATOD Use, measured by the various scales for each of the eight constructs as well as the ATOD substance use measures.

Table 6: Risk and protective factors measured by the NMFAS construct scales

Construct	Risk and Protective Factors
Home Environment	Housing stability; financial stability; reliable transportation; nutritious meals; good hygiene practices and structured time for children
Social Support	Positive interactions with neighbors and/or friends; support from relatives, neighbors, and/or friends and help with finances, childcare, cooking, etc.
Social Services Utilization	Access to emergency medical services or a regular doctor; access to emergency help from friends, etc. and participation in activities to further education
Parenting Skills	Discipline; supervision; increased ability to support child's development; increased knowledge about child's language, emotional and motor development; ability to identify and willingness to seek services for mental health problems; resources to be a positive parent and physical ability to care for child and father's involvement
Family Interaction	Planning family activities; support during times of crisis; open communication; acceptance; positive feelings and interactions; empowerment and improved decision making
Child Well Being	Regular medical care, including up to date immunizations; age appropriate development; use of a safe car seat and personal safety
Parent/child Dysfunctional Interaction	Positive interactions and feelings and age appropriate expectations
Perception of the Risk Associated with ATOD Use	Perception of the risks associated with cigarette smoking, marijuana use and binge drinking

Using SPSS, analyses were conducted for parent surveys that had both a complete pre-test and post-test. First, the data were cleaned and frequencies were run for pre-test and post-test variables to identify outliers. Variables were then recoded, including reverse-coded when appropriate, so that sum scales and mean scales could be created to measure the eight constructs. Scale reliability analyses were conducted to examine internal validity before running sample demographics and descriptive statistics. Like other OSAP prevention programs, a series of paired sample t-tests was performed on each construct in order to assess whether the sum or mean scores of the pre-tests were significantly different from the sum or mean scores on the post-tests. The alpha criterion set was .05 ($\alpha = <.05$) meaning that if a statistically significant difference is found, there is a 95% likelihood that the difference is *not* due to chance but to an actual difference.

This year, the outcome analysis was revised to better capture changes in substance use between baseline and post-test data collection endpoints. The new analyses examine the percentage of respondents reporting past 30-day substance use at baseline and post-test for five measures: any alcohol, alcohol to intoxication, other illegal drugs, marijuana and cigarettes. Respondents reporting any substance use at baseline comprise a high-risk sub-group that is then isolated from the sample for further examination.

In addition, an analysis was conducted using the GLM procedure in SPSS to generate a Repeated Measures MANOVA with one within group factor (time). The pre-test and post-test mean scores were compared for the eight constructs and the F statistic is reported along with the partial Eta squared (η_p^2) which was calculated to examine the effect size of the program between pre-test and post-test. The partial Eta squared is the proportion of the effect + error variance that is attributable to the effect.

Results

Outcome data were collected from 215 parent surveys. The table below (Table 7) provides the distribution of 0-6 program participants by site.

Table 7: Distribution of 0-6 program participants by site

Site	Curriculum Provided	Number of Participants*	Percent of Total Participants
Counseling Associates	Parents as Teachers	75	34.9%
Excel Educational Enterprises	Effective Black Parenting Program	10	4.2%
Sandoval County SAP Collaborative	Dare to Be You	37	17.2%
Santa Fe Public Schools	Meld Para Nueva Familia	50	23.3%
Southern NM Human Development	Strengthening Families	44	20.5%
	Total	215	100.0%

*This is the total number of participants that completed both a pre-test and a post-test.

The percentage of female caregivers that completed the survey was much higher than the number of male caregivers (91% versus 9%). Across the sites, the mean age of the parent or guardian completing the survey was 28.1 years old, although 23.9% of the respondents were between the ages of 14 and 19 years old. More than one-third (34.3%) of the respondents were not born in the United States and more than half (57.5%) spoke a language other than English in their homes. The mean highest grade completed in school was eleventh grade and less than half of the respondents were engaged in full (28.7%) or part-time (16.3%) employment. The average household size was 4.4 persons and the average number of children in the home was 2. Among the children enrolled in the program, the percentage of male children (52.1%) was slightly larger than the percentage of female program participants (47.9%).

Findings for four of the protective factors measured by the NMFAS captured the desired movement between pre-test and post-test scores with a level of statistical significance (see Table 8): Social Support (t=-3.442, n= 211, p=.001), Social Services Utilization (t=-2.579, n=211, p=.006), Parenting Skills (t = -4.991, n = 206, p=.000) and Child Well Being (t=-2.743, n=194, p=.007). Two of the five scales, Family Interaction and Parent Child Dysfunctional Interaction, had high reliability coefficients, as indicated by an alpha score of 0.800 or better (.891 and .890 respectively).

Three scales that were not statistically significant at alpha = .05, Home Environment, Family Interaction, and ATOD Perception of Risk, indicated positive movement observed as increased mean scores between baseline and post-test. Similarly, the mean scores for Parent Child Dysfunctional Interaction moved in the desired direction, decreasing from 19.68 at baseline to 18.98 at post-test. Three of the scales have moderate reliability ranging from .667 to .792, and Social Service Utilization (.400), Child Well Being (.559) and ATOD Perception of Risk (.400) have low reliability.

Table 8: Family Assessment Scale findings

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Home Environment (n=212)	0-30		22.25	22.57	-1.169	0.244	↑ Is better	0.667
Social Support (n=211)	0-9		7.08	7.45	-3.442***	0.001	↑ Is better	0.729
Social Services Utilization (n=211)	0-12		9.15	9.55	-2.759**	0.006	↑ Is better	0.400
Parenting Skills (n=206)	0-30		23.23	24.94	-4.991***	0.000	↑ Is better	0.792
Family Interaction (n=212)	0-36		26.68	27.38	-1.451	0.148	↑ Is better	0.891
Child Well Being (n=194)	0-18		15.12	15.68	-2.743**	0.007	↑ Is better	0.559
Parent Child Dysfunctional Interaction (n=200)	12-60		19.68	18.98	1.136	0.257	↓ Is better	0.890
ATOD Perception of Risk (n=195)	0-12		10.70	10.74	-0.201	0.841	↑ Is better	0.400

*p≤.05, **p≤.01, ***p≤.001.

The findings for the aggregate measures of ATOD Use should be interpreted with caution. The percentage of respondents reporting ATOD use decreases between baseline and post-test for all substances; however the number of respondents with missing data at post-test increases proportionately. It is possible that some respondents reporting use at baseline elect not to answer the same substance use questions at post-test, causing an underestimation of use at post-test among this population. By comparison, similar reductions are observed among the high-risk group and they are more likely to accurately reflect the trend observed in the aggregate data because the number of respondents is

constant. Among the high risk group, the percentage of respondents reporting past 30 day use for any substance decreased from baseline to post-test with statistically significant results for any alcohol use.

Table 9: ATOD Use at baseline and post-test for all participants and among participants reporting use at baseline

Substance	All Participants		Participants with Any ATOD Use at Baseline	
	Baseline	Post-Test	Baseline	Post-test
Any Alcohol Use	13.7% (n=190)	11.4% (n=185)	92.9% (n=28)	48.1%** (n=27)
Alcohol to Intoxication	4.7% (n=193)	4.3% (n=186)	28.6% (n=28)	21.4% (n=28)
Other Illegal Drugs	1.6% (n=193)	1.1% (n=186)	10.7% (n=28)	3.6% (n=28)
Marijuana	1.6% (n=193)	0.5% (n=184)	10.7% (n=28)	3.6% (n=28)
Cigarettes	16.8% (n=202)	14.5% (n=200)	39.3% (n=28)	32.1% (n=28)

*p≤.05, **p≤.01, ***p≤.001.

The scores for nearly all of the constructs measured by the NMFAS demonstrated movement in the desired direction, although the findings for only three of the eight measures achieved statistical significance (Social Support, F=5.200, p< .05; Social Services Utilization, F=4.426, p< .05 and Parenting Skills, F=10.731, p< .001). Of the three measures, the first two had small effect sizes and the third had a medium effect size.

Table 10: Examining the effect of NMFAS pre-test scores on post-test scores (n=158)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Home Environment	22.70	22.51	0.400	0.003	↑ Is better
Social Support	7.20	7.37	5.200*	0.032	↑ Is better
Social Services Utilization	9.13	9.46	4.426*	0.027	↑ Is better
Parenting Skills	23.65	24.81	10.731***	0.064	↑ Is better
Family Interaction	26.41	26.90	0.873	0.006	↑ Is better
Child Well Being	15.32	15.76	3.734	0.023	↑ Is better
Parent Child Dysfunctional Relationship	20.42	19.51	1.853	0.012	↓ Is better
ATOD Perception of Risk	10.58	10.93	3.147	0.020	↑ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Discussion

Overall, the 0-6 programs had a positive impact on participants. There was statistically significant improvement in participants' parenting skills ($p \leq .001$). This finding indicates that after participating in the program, the parents reported that they learned new ways to discipline their child other than spanking, were more likely to ensure their child was supervised closely and safely, reported that they knew how to support their child's development, reported that they had increased their knowledge about their child's language development, emotional development, and motor development, were more likely to seek help for a mental health problem, reported having more resources to be a positive parent, reported less health problems that interfered with their ability to take care of their child, and reported that the child's father was more involved with the daily care of their child. Similarly, the findings for the Social Support and Social Services Utilization measures suggest that after participating in the program, family members were more likely to have positive interactions with neighbors and/or friends, reported seeking support from relatives, neighbors, and/or friends for help with finances, childcare, cooking, etc., and had access to emergency medical services or a regular doctor, access to emergency help from friends and others in their support network, and participated in activities to further their education.

There was very slight improvement in the measurements for Home Environment, Family Interaction, and Child Well Being. These findings indicate that after participating in the program, the parents or guardians were able to provide more stable home environments for their children, participate in positive relationships with family members that resulted in feelings of personal empowerment and improved decision making skills, and their children benefitted from improved access to medical care and safer environments. Moreover, the score on the risk factor for Parent Child Dysfunctional Interaction was reduced and parents' perceptions of risk associated with ATOD use increased.

Many more respondents provided information for the substance use questions than last year. This indicates that program staff was successful at improving data collection around these questions and documenting their experience might be valuable for future program planning. Only 13% of respondents reported any substance use at baseline. Due to the increased missing data at post-test, it is not possible to determine whether or not substance use is truly decreasing, but among those reporting substance use at baseline, one very impressive achievement observed was the 44.8% decrease in percent of respondents reporting any alcohol use between pre- (92.9%) and post-test (48.1%).

Revisions to the FAS

Over FY 09, extensive revisions were made to the FAS. Working with local evaluators and prevention providers, the FAS was revised to have one core instrument that measures ATOD use in addition to parenting knowledge, social support, and attitudes. In addition to the core measure that everyone must use, there are four additional modules that may be used by programs. This design was created because the programs with 0-6 funding vary widely as to population served. Some are serving pregnant teens in the school system, while others are serving adult caregivers referred to parenting programs by the legal system. Still other programs

work with pregnant mothers, others post-partum, and some both prenatal and post-partum parents. A one-size-fits-all instrument was impossible to create. Therefore, besides creating instruments to assess prenatal and post-natal parenting knowledge and skills, additional measures were created to assess parent child interaction for those with older children, rather than infants, and another was created to assess stress management skills. Each module was piloted with teen and adult mothers and feedback was used to revise the instruments. Then instruments were translated into Spanish, translated back into English, and checked by four different native Spanish speakers for accuracy. The revised FAS instruments will be used during the current FY.

V. Pre-K through 6

Background

Prevention programs targeting PreK to 6th grade students aim to improve parent-child interactions, communication between family members, and parental attitudes through increasing parenting knowledge and skills. The PreK to 6th survey instrument was designed to assess a parent domain comprised of three constructs: Family Interaction, Parental Attitudes, and Parent Child Dysfunctional Interaction. The Family Interaction measure assesses the presence or absence of positive interactions between parent and child, positive reinforcement of appropriate behavior, inappropriate discipline methods, quality time spent together, and family communication skills. The second measure, Parental Attitudes, asks parents to rate themselves using a five-point scale (very poor, poor, so-so, good, very good) on their ability to manage their anger and emotions, to problem solve, parental participation in child's education, and parenting self-efficacy. The third measure also uses a five-point scale (strongly agree, agree, not sure, disagree, strongly disagree) to gauge overlap between parents' expectations and observations of their child's behavior and their relationship with their child.

Seven sites received funds to address ATOD prevention for the PreK to 6th grade population. Sites provided one or more of the following evidence-based curriculums: *Dare to be You, Botvin's Life Skills Training, Effective Black Parenting Program, Strengthening Multi-Ethnic Families* and the *Nurturing Parenting Program.*

Dare to Be You

Please refer to description in Section IV.

Botvin's Life Skills Training

The Life Skills Training universal classroom program is a proven, highly effective substance abuse prevention/competency enhancement program designed to focus primarily on the major social and psychological factors promoting substance use/abuse. It is based on 20 years of research concerning the causes of substance abuse and how best to prevent it. The program includes five major components, each of which consists of two to six lessons that are taught in sequence. The LST program increases student' knowledge of the immediate consequences of substance use while providing them with the necessary skills to resist social (peer) pressures to smoke, drink and use drugs. In addition, it helps student develop greater self-esteem, self-mastery, and self-confidence, enabling them to effectively cope with social anxiety. The key components of the Elementary version of the Life Skills Training Program are Personal Self-Management Skills (provide students with skills for enhancing self-esteem, learning creative problem solving, reducing stress and anxiety, and managing anger), General Social Skills (empower students with skills to meet personal challenges such as overcoming shyness, communicating clearly, building relationships, and avoiding violence), and Drug Resistance Skills (enable students to build defenses against pressures to use tobacco, alcohol, and other drugs). In addition, the key factors addressed by this approach are Cultural Bonding, School Bonding, Perception of Harm, and Social Competence.

Effective Black Parenting Program

Please refer to description in Section IV.

Strengthening Multi-Ethnic Families

La Clinica del Pueblo de Rio Arriba integrates various prevention/intervention strategies that serve ethnic and culturally diverse parents of children aged 3-18 years who are interested in raising children with a commitment to leading a violence-free, healthy lifestyle. The program is designed to provide parents, caregivers, and community members with parent education designed to promote healthy child development and positive parenting practices.

Nurturing Parenting Program

The Nurturing Parenting Programs are a family-centered initiative designed to build nurturing parenting skills as an alternative to abusive and neglecting parenting and child-rearing practices. The long term goals are to prevent recidivism in families receiving social services, lower the rate of multi-parent teenage pregnancies, reduce the rate of juvenile delinquency and alcohol abuse, and stop the intergenerational cycle of child abuse by teaching positive parenting behaviors.

Methods

As with the other pre-adolescent science-based prevention programs implemented by OSAP, a pre-test, post-test design without control groups was used to assess outcomes for program participants. Local evaluators monitored and provided oversight at each of the funded Pre-K - 6 prevention sites and worked closely with the statewide evaluation team to provide timely data submission. Parents or guardians of the children completed the PreK to 6^{th} survey instrument before their participation in a curriculum and again after completion of the curriculum. SPSS analyses were conducted on parent surveys that have both a complete pre-test and post-test.

Once data were submitted, the data were cleaned and frequencies were run for pre-test and post-test variables to identify outliers; variables were then re-coded, including reverse-coded when appropriate, so that sum scales and mean scales could be created to measure the eight constructs; scale reliability analyses were conducted to examine internal validity before running sample demographics and descriptive statistics and finally, a series of paired sample t-tests was performed on each construct in order to assess whether the sum/ mean scores of the pre-tests were significantly different from the sum/mean scores on the post-tests. The alpha criterion set was .05 ($\alpha = <.05$). Finally, the GLM procedure in SPSS was used to conduct an analysis between pre-test and post-test scores controlling for demographics.

Results

Data on program outcomes were collected from 376 parent surveys. The table below (Table 11) provides the distribution of PreK to 6th program participants by site.

Table 11: Distribution of PreK to 6th grade program participants by site

Site	Curriculum Provided	Number of Participants*	Percent of Total Participants
Counseling Associates	Dare to Be You, Botvin's Life Skills Training	113	30.1%
Counseling Center	Nurturing Parenting Program	37	9.8%
Excel Educational Enterprises	Effective Black Parenting Program	23	6.1%
McKinley County		45	12.0%
Mescalero Apache Tribe	Dare to Be You, Botvin's Life Skills Training	29	7.7%
La Clinica del Pueblo de Rio Arriba	Dare to Be You/Strengthening Multi-Ethnic Families	43	11.4%
Tri-County Community Services	Dare to Be You	86	22.9%
	Total	376	100.0%

*This is the total number of participants that completed both a pre-test and a post-test.

Data on the relationship between the caregiver and the child was available for 369 respondents. Nearly 90% of respondents identified themselves as the parent or guardian, followed by 7% for grandparents and 3% for other. Less than one percent of the respondents were foster parents. Female caregivers were three times as likely to complete the survey as male caregivers (79% compared to 21%). The mean age of the survey respondents was 35 years old. Among the children, it seems that male program participants (55%) were slightly more common than female program participants (45%); however, data on gender are missing for 72 children, which is not an insignificant number. More respondents were married (40%) than single (29%) or separated or divorced (9%). The average number of children living with a respondent was 2 and the average number of people per home was 4. A language other than English was spoken in slightly more than half of the homes (53%). The majority (80%) of respondents had completed 11 years or more of education and 54% reported that they were employed in either full or part-time work while 18% reported that they were unemployed and looking for work.

For the total sample, statistical significance on the score differences from pre-test to post-test was reported for all three of the measures. Family Interaction ($t= -4.984$, $n=358$, $p=.000$), Parental Attitudes ($t = -7.148$, $n=358$, $p=.000$), and Parent-Child Dysfunctional Interaction ($t = 3.148$, $n=337$, $p=.002$) increased significantly as predicted over the course of the prevention programming. The two latter scales had high reliability coefficients (.864 and .853 respectively) and the former had moderate reliability (.779).

Table 12: PreK to 6th grade program findings: Parent Domain

Sub-Scale	Range		Baseline Mean Sum Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Family Interaction (N=358)	0-52		37.00	38.72	-4.984	0.000***	↑ Is better	0.779
Parental Attitudes (N=358)	0-40		28.24	30.73	-7.148	0.000***	↑ Is better	0.864
Parent-Child Dysfunctional Interaction (N=337)	10-50		17.93	16.71	3.148	0.002**	↓ Is better	0.853

*p≤.05, **p≤.01, ***p≤.001.

Consistent with findings from the paired t-tests, the change between baseline and post-test scores on all three measures achieved statistical significance. Effect sizes ranged from small (Parent-Child Dysfunctional Interaction, .034), medium (Family Interaction, .052) and large (Parental Attitudes, .108).

Table 13: Examining the effect of the Parent Survey pre-test scores on post-test scores (n=336)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Family Interaction	37.27	38.80	18.49***	0.052	↑
Parental Attitudes	28.58	30.82	40.54***	0.108	↑
Parent-Child Dysfunctional Interaction	17.97	16.67	11.80***	0.034	↓

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p<.05, **p<.01, ***p<.001.

When the sample was split for analysis by child's biological sex, statistically significant findings on the Parental Attitudes scale were found for female program participants (t= -2.439, n=131, p=.016) with t-test analysis. On the other hand, this finding did not hold under the more conservative GLM methods with parental attitudes improving from pre-test to post-test for males only.

Table 14: PreK through 6th grade program: Parent report on female youth participant findings

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Family Interaction (N=132)	0-52		37.55	38.46	-1.624	0.107	↑ Is better	.802
Parental Attitudes (N=131)	0-40		28.74	30.17	-2.439	0.016*	↑ Is better	.877
Parent-Child Dysfunctional Interaction (N=124)	10-50		17.20	15.90	1.819	0.071	↓ Is better	.854

*p≤.05, **p≤.01, ***p≤.001.

Table 15: Examining the effect of Parent Survey pre-test scores on post-test scores for female program participants (n=124)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Family Interaction	38.02	38.69	1.337	0.011	↑
Parental Attitudes	29.10	29.98	2.512	0.020	↑
Parent-Child Dysfunctional Interaction	17.20	15.90	3.307	0.026	↓

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p<.05, **p<.01, ***p<.001.

By comparison, statistically significant findings were found for the male program participants on all three measures: the Family Interaction scale (t =-4.226, n=157, p=.000), the Parental Attitudes scale (t=-6.030, n=157, p=.000), and the Parent-Child Dysfunctional Interaction scale (t =2.663, n=150, p=.009). Furthermore, findings from the analysis with GLM also supported statistical significance for all three measures and small (Parent-Child Dysfunctional Interaction, η_p^2 =.045), medium (Family Interaction, η_p^2 =.092) and large (Parental Attitudes, η_p^2 =.166) effects for program participants.

Table 16: PreK to 6th grade program: Parent report on male youth participant findings

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Family Interaction (n=157)	0-52		36.64	38.91	-4.226	.000***	↑ Is better	0.774
Parental Attitudes (n=157)	0-40		27.83	31.00	-6.030	.000***	↑ Is better	0.862
Parent-Child Dysfunctional Interaction (n=150)	10-50		18.31	16.87	2.663	.009**	↓ Is better	0.852

*p<.05, **p<.01, ***p<.001.

Table 17: Examining the effect of Parent Survey pre-test scores on post-test scores for male program participants (n=150)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Family Interaction	36.73	38.88	15.126***	0.092	↑
Parental Attitudes	28.13	31.08	29.686***	0.166	↑
Parent-Child Dysfunctional Interaction	18.31	16.87	7.090**	0.045	↓

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p<.05, **p<.01, ***p<.001.

Discussion

The three constructs measured by the Parent Domain of the PreK to 6th survey instrument were associated with statistically significant, positive findings. However, when the sample was split by sex of the child participant, the findings appeared to split also, with statistically significant findings on the Parental Attitudes measure for parents of both female and male program participants, but only statistically significant findings for all three measures of male program participants. Improvement on the Parental Attitudes measure indicates increased self-efficacy as parents' skills move along a spectrum of "very poor" to "very good" in regards to anger management, expressing emotions, positive role modeling, positive reinforcement for child's appropriate behavior, and ability to provide appropriate discipline. Moreover, adult participants became more empowered as they learn to participate in their child's education, make plans to achieve personal goals and access community resources. As a result of these outcomes, personal relationships with children and other family members generally benefit.

Parents of male program participants also experienced improved outcomes as a result of strengthened family interactions. Compared to baseline data, parent scores were more likely to move from "never" toward "always" along a response continuum at post-test when asked about positive interactions and behavior toward their child. Several of the items in this construct measure parenting self-efficacy and the trend described by the scale is for parental empathy and understanding of their children to increase as a result of improved self-esteem. These positive findings for parents of male program participants were accompanied by corresponding improvements in parental self-esteem and child awareness as captured by decreasing scores from baseline to post-test on the Parent-Child Dysfunctional Interaction measure.

While the findings are generally positive, the results should be interpreted with caution as data for 72 of the program participants were not included in the analysis by sex because those respondents did not identify the sex of their child program participant. Given that that total population is 376 total respondents, 72 is about one-fifth of the total number of program participants and efforts should be made to collect complete data from parents of each program participant.

VI. K through 6

Background

The K through 6 programs share the same funding stream as the PreK to 6 programs, however, the survey instruments vary. The **K-6 Youth Survey** is used with 5th and 6th graders, the **K-6 Teacher Survey** is used for youth served in 4th grade and younger and is completed by the teacher, and the **K-6 Parent Survey** is completed by parents of youth in Grades Pre-K-6.

Dare to Be You

Please refer to description in Section IV.

Botvin's Life Skills Training

Please refer to description in Section V.

Too Good for Drugs

Too Good for Drugs (TGFD) is a school-based prevention program designed to reduce the intention to use alcohol, tobacco, and illegal drugs in middle and high school students. Developed by the Mendez Foundation for use with students in kindergarten through 12th grade (5 to 18 years old), TGFD has a separate, developmentally appropriate curriculum for each grade level, and is designed to develop personal and interpersonal skills relating to alcohol, tobacco, and illegal drug use; appropriate attitudes toward alcohol, tobacco, and illegal drug use; knowledge of the negative consequences of alcohol, tobacco, and illegal drug use and benefits of a drug-free lifestyle, and positive peer norms.

The program's highly interactive teaching methods encourage students to bond with pro-social peers, and engages students through role-play, cooperative learning, games, small group activities and class discussions. Students have many opportunities to participate and receive recognition for involvement. TGFD also impacts students through a family component used in each grade level: "Home Workouts" is available for use with families in kindergarten through 8th grade, and "Home Pages" is used in high school.

Across Ages Mentoring

The Across Ages program is a mentoring program that links at-risk youth with older community members. Mentors meet with the youth for 2 hours weekly and work with the youth to set goals and develop community-based activities designed to raise awareness of ATODA risks and to change community norms about alcohol use. Prevention specialists meet with mentors weekly to review progress and to provide support and information as needed.

Five students are selected at each school district for mentoring based on locally developed criteria that includes grades, attendance, discipline referrals, tardies, and teacher and student ratings. Both boys and girls are paired with mentors. Ideally each site would have both a male and a female mentor to provide sex specific role models to the students but this is not

always possible. The mentors come from the communities where the schools are located and match the students' ethnic, linguistic, and cultural backgrounds.

Protecting You/Protecting Me

Protecting You/Protecting Me is a locally developed "promising program" tailored to meet the cultural needs, including language, of the population served by sites. In the schools, corps members mentor and tutor youth in grades Pre-K to 6th after-school four days each week and within assigned elementary classrooms providing targeted prevention lessons and service learning projects that build resiliency skills among the students. This program addresses specific competencies identified by the school district's Needs Assessment Committee, while increasing overall grade levels, encouraging positive attitudes towards school and decreasing disciplinary problems in classrooms and playground. Key components of the approach include physical activity, homework assistance, PYPM curriculum, mentoring relationships, and safe environment. The key factors addressed by this approach include school success, bonding to school, caring relationships, and physical health.

Project Venture Middle School (PVMS)

Project Venture Middle School (PVMS) is based on the original Project Venture developed by NIYLP and now a CSAP Model Program. PV employs alternative methods (outdoor/experiential education, servant leadership/service learning, reconnecting with traditional culture and the natural world) to help youth develop in healthy and positive ways, to do better in school, to get along better with family and friends, and to avoid using alcohol, tobacco, and other drugs, in addition to promoting cooperation, communication, trust, and problem-solving skills. PVMS includes activities during the school day in classrooms facilitated by Project Venture staff with the help of teachers. After-school activities occur weekly and are led by Project Venture staff and teacher-facilitators. Participants have the opportunity to attend special activities during the summer, such as NIYLP's Sacred Mountain Learning Center camp, field trips, and extended wilderness excursions. Central to the Project Venture program is the philosophy of Service-learning. Service-learning helps young people to develop ideas and attitudes that allow them to lead by giving back to the community. Young people develop service projects that include community resources and involvement. In addition to community/cultural learning, the projects frequently involve academic and social skills such as math, language arts, research, interpersonal and public communication, and leadership challenges.

Talking Talons Youth Leadership

TTYL provides high intensity, long-duration prevention services for 5th, 6th and 7th grade students in the East Mountain Areas of Bernalillo, Santa Fe and Torrance Counties. Services are structured based on best practices learned from State and Federal agencies such as DOH/OSAP and CSAP. Service delivery to youth is expected to yield social outcomes (see program findings) directly and student disapproval of drug use as an indirect effect. The TTYL prevention program is unlike any in the country. It utilizes a collection of live, injured, wild animals as teaching and inspirational tools and emphasizes science. The animals, around which the curriculum is built, and, more specifically, the attachment the students make with the animals, is one of the causal factors for social outcomes. The key factors addressed are self esteem, attitudes toward school, attitudes toward science, science knowledge, violence prevention, locus of control, and moral decision making.

Nurturing Parenting Program

Please refer to description in Section V.

Methods

The pre-test, post-test format without control groups was used to assess outcomes for program participants. Three different survey instruments (youth, parent, and teacher) were completed at the discretion of program staff at each site. The Youth Survey is designed for 5th and 6th graders, although it was administered to some 3rd and 4th graders during this reporting period and those data are included in the analyses. Youth participants were asked about past 30-day use of tobacco, alcohol, marijuana and illicit drugs, and then they were asked about their attitude toward ATOD use, their perception on ATOD availability, and their perceptions of harm. Parents rated their children on items that formed measures for conduct problems, learning problems, psychosomatic symptoms, impulsive-hyperactive behavior, anxiety, and hyperactivity. Similarly, teachers also rated program participants' conduct problems, hyperactivity, inattentiveness and passive behavior.

Data were cleaned in the usual way prior to running frequencies for pre-test and post-test variables to identify outliers. Next, variables were then recoded, including reverse-coded when appropriate. Sum scales and mean scales were created for constructs with multiple measures. Scale reliability analyses were conducted to examine internal consistency before running sample demographics and descriptive statistics and finally, a series of paired sample t-tests was performed on each construct in order to assess whether the sum/ mean scores of the pre-tests were significantly different from the sum/mean scores on the post-tests, and GLM analyses were run to assess whether pre-test scores predicted post-test scores. The alpha criterion set was .05 ($\alpha = <.05$).

Results

Data on program outcomes were collected from youth participants, their parents, and their teachers. The table below provides the distribution of K -6th youth program participants by site. The findings are then presented separately based on each survey instrument.

Table 18: Distribution of K -6th program participants by site

Site	Curriculum Provided	Number of Participants*	Percent of Total Participants
Counseling Associates	Dare to Be You, Botvin's Life Skills Training	65	6.7%
NCCBS	Too Good for Drugs	68	7.0%
Rocky Mountain Youth Corps	Tutoring/Mentoring, Protecting You/Protecting Me	17	1.8%
San Juan County Partnership	Botvin's Life Skills Training	164	16.9%
Isleta Pueblo	Project Venture Middle School	57	5.9%
UNM ACL Teen Center	Life Skills Training	121	12.5%
Excel Educational Enterprises	After School Learning Center, Effective Black Parenting Program	16	1.7%
Talking Talons Youth Leadership	Talking Talons Youth Leadership	29	3.0%
Rio Rancho Public Schools	Dare to Be You	424	43.8%
Mescalero Apache Tribe	Dare to Be You, Life Skills Training	21	2.2%
Counseling Center	Nurturing Parenting Program	2	<1.0%
	Total	968	100%

*This is the total number of participants that completed both a pre-test and a post-test.

Youth Survey

More male participants completed pre-test and post-test surveys than female participants (52% versus 48%). Ideally, respondents would be 10 years old or older; however, the age range of participants during this reporting period was 8 years old to 13 years old with a mean age of 10.5 years old. Less than 20 percent of participants were in 3rd or 4th grade while the majority were in the 6th grade (44%) followed by the 5th grade (39%). There were no real differences between males and females with regard to their mean age or the number of people living in their home; however, of those who were not born in the United States, males had lived in the US for an average of 8 years while females had lived in the US for an average of 6 years. More than half of the females (59%) came from homes where a language other than English was the primary language at home, as did 50% of males. Most youth (90%) lived with their mother, but

only 66% of females and 73% of boys lived with their father. Forty-two youth were in foster care at the time the pre-test was administered.

The outcomes measured for six school and family constructs generally did not change in the desired direction with the exception of the average on the youth Family Bonding scale (t = -2.87, n=952, p=0.029). By comparison, a decrease in the post-test mean score from the baseline mean score for the School Attendance measure was a statistically significant undesirable finding (t=3.77, n=920. p=0.000). Findings for Parent Communication were marginally significant (t=1.952, n=948, p=0.051) with an undesirable decrease in the post-test mean score from the baseline mean score. Disruptive School Behaviors and School Protective Factors improved slightly at post-test and scores for School Performance decreased slightly at post-test, although the changes were not statistically significant.

Table 19: K-6th grade t-test results comparing pre-test to post-test for Youth Survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
SCHOOL								
School Performance (Grade) (n=862)	0-6		4.38	4.32	1.246	0.213	↑ Is better	NA
School Attendance (n=920)	1-4		2.94	2.84	3.770***	0.000	↑ Is better	NA
Disruptive School Behaviors (Youth) (n=954)	0-12		1.55	1.49	0.825	0.409	↓ Is better	0.540
School Protective Factors (Youth) (n=959)	11-44		38.02	38.06	-0.274	0.784	↑ Is better	0.772
FAMILY								
Parent Communication (Youth) (n=948)	0-12		6.67	6.49	1.952	0.051	↑ Is better	0.281
Family Bonding (Youth) (n=952)	0-5		4.54	4.60	-2.187*	0.029	↑ Is better	0.367

*p≤.05, **p≤.01, ***p≤.001.

Overall, the score on the youth self-reported substance use measures for past 30-day tobacco and marijuana increased at post-test while the scores for alcohol and illicit drug use decreased at post-test, although none of the findings were statistically significant. On the other hand, a statistically significant, positive increase on the post-test score for Perceived Harm was observed (t= -4.912, n=792, p=0.000). The post-test mean score for Attitude toward Use also moved in the desired direction, but the results were not statistically significant. Results for Perceived Availability moved in the undesirable direction with an increase in the post-test mean score from baseline, but they were not statistically different from pre-test estimates.

Table 20: K-6th grade Youth Survey ATOD t-test results comparing pre-test to post-test

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
30-Day Tobacco Use (n=929)	0-2		0.054	0.055	-0.115	0.908	↓ Is better	0.291
30-Day Alcohol Use (n=916)	0-1		0.052	0.046	0.762	0.446	↓ Is better	NA
30-Day Marijuana Use (n=910)	0-1		0.023	0.029	-0.962	0.336	↓ Is better	NA
30-Day Illicit Drug Use (Marijuana & Inhalant) (n=917)	0-2		0.091	0.072	1.645	0.100	↓ Is better	0.279
Attitude toward Use (How wrong) (n=930)	9-36		34.57	34.71	-0.999	0.318	↑ Is better	0.862
Perceived Availability (How easy to get) (n=913)	3-12		3.89	4.01	-1.684	0.093	↓ Is better	0.777
Perceived Harm (n=792)	0-9		7.14	7.62	-4.912***	0.000	↑ Is better	0.862

*p≤.05, **p≤.01, ***p≤.001.

Findings for Youth Survey respondents were similar for analyses with GLM models, including the statistically significant results for School Attendance (an increase in the mean number of days absent between pre-test and post-test) and Perceived Harm (an increase in the number of respondents indicating harmful perceptions around ATOD use). The results of the GLM analyses are presented in Table 21.

Table 21: Using GLM to assess the affect of time on K-6th grade youth post-test measures controlling for pre-test estimates (n=685)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
SCHOOL					
School Performance (Grade)	4.44	4.37	2.411	0.004	↑ Is better
School Attendance	2.97	2.89	6.235*	0.009	↑ Is better
Disruptive School Behaviors	1.49	1.45	0.285	0.000	↓ Is better
School Protective Factors	38.08	38.12	0.041	0.000	↑ Is better
FAMILY					
Parent Communication	6.66	6.48	2.761	0.004	↑ Is better
Family Bonding	4.54	4.63	9.409	0.014	↑ Is better
YOUTH ATOD					
30-Day Tobacco Use	0.044	0.045	0.021	0.000	↓ Is better
30-Day Alcohol Use	0.050	0.044	0.363	0.001	↓ Is better
30-Day Marijuana Use	0.016	0.020	0.021	0.001	↓ Is better
30-Day Illicit Drug Use (Marijuana & Inhalant)	0.085	0.069	1.392	0.002	↓ Is better
Attitude toward Use (How wrong)	34.80	34.97	2.280	0.003	↑ Is better
Perceived Availability (How easy to get)	3.95	4.09	3.624	0.005	↓ Is better
Perceived Harm	7.19	7.75	31.714***	0.044	↑ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

The outcomes stratified by sex are similar (See Tables 4-7 in Appendix D), with exceptions. Among females there were statistically significant increases in past 30-day marijuana use not seen among males. In addition, a statistically significant improvement on School Protective Factors for males was observed but no so among females.

Parent Survey

Most of the 443 surveys (94%) were completed by the child's parents versus a grandparent, foster parent, other relative or other guardian. Female parents were more likely to complete the Parent Survey (89%) compared to male parents (11%). More than half of the respondents were married at the time of pre-test (56%), 16% were single, 17% indicated they were either separated, divorced, or widowed, and 11% were co-habitating. Only 14% of the surveys were completed by respondents not born in the United States, with 40% of respondents reporting that they spoke a language other than English in the home. Half of the respondents had full-time employment, while 15% were employed part-time. Approximately 8% were unemployed and looking for work, 19% were unemployed and not looking, 4% indicated that they were unemployed and disabled, less than 1% had already retired, and 4% had other extenuating circumstances. The average household size reported was four individuals and the

average age of the survey respondent was 34 years old. A few respondents did not have children living in their home at the time their survey was completed, but the average number of children at home was two with one home having as many as seven children.

Increased scores at post-test for the Learning Problems construct and the Psychosomatic construct were statistically significant ($p<.05$) and the latter finding was sustained in GLM analyses. Tables 22 and 23 provide the results of analyses on the whole sample.

Table 22: K-6th Parent Survey t-test results comparing pre-test to post-test estimates

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS[4]: Conduct Problems – Parent Rating (n=441)	0-24		3.19	3.33	-0.859	0.391	↓ Is better	0.811
CRS: Learning Problems – Parent Rating (n=439)	0-12		2.12	2.34	-2.135*	0.033	↓ Is better	0.760
CRS: Psychosomatic – Parent Rating (n=440)	0-12		0.62	0.76	-2.093*	0.037	↓ Is better	0.628
CRS: Impulsive-Hyperactive – Parent Rating (435)	0-12		3.26	3.40	-1.204	0.229	↓ Is better	0.761
CRS: Anxiety – Parent Rating (n=440)	0-12		2.30	2.25	0.581	0.561	↓ Is better	0.667
CRS: Hyperactivity Index – Parent Rating (n=441)	0-30		5.58	5.94	-1.690	0.092	↓ Is better	0.852

*p≤.05, **p≤.01, ***p≤.001.

[4] CRS = Conner's Rating Scales

Table 23: Examining the effect of time on parent responses at post-test controlling for pre-test estimates (N=433)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[5]: Conduct Problems	3.17	3.34	1.032	0.002	↓ Is better
CRS: Learning Problems	2.12	2.31	3.691	0.008	↓ Is better
CRS: Psychosomatic	0.63	.76	4.116*	0.009	↓ Is better
CRS: Impulsive-Hyperactive	3.25	3.40	1.495	0.003	↓ Is better
CRS: Anxiety	2.32	2.26	0.555	0.001	↓ Is better
CRS: Hyperactivity Index	5.58	5.94	2.807	0.006	↓ Is better
Family Cohesion and Adaptability	65.29	64.48	3.333	0.008	↑ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

When the ratings data were stratified by the program participant's sex (217 males and 221 females), parent ratings of female children significantly changed from pre-test to post-test with increases in the undesired direction for the Learning Problems construct, the Psychosomatic construct, and the Hyperactivity construct (See Tables 12 and 13 in Appendix D). There were no statistically significant findings among males (See Tables 10 and 11 in Appendix D).

Teacher Survey

Teachers (684) completed more reports for female youth (312) than male youth (369). (Note that more Teacher Surveys were completed than Parent Surveys.) Teachers identified 41% of youth as coming from a home where a language other than English was spoken compared to youth themselves where 50% reported a primary language other than English in the home.

Teachers rated students on four constructs: Conduct Problem, Hyperactivity, Inattentive-Passive behavior, and a Hyperactivity Index. Overall, a significant increase in conduct problems from pre-test to post-test was reported (t= -3.170, n=684, p=0.000). No other constructs showed significant changes from pre-test to post-test. Tables 24 and 25 show the results of the t-test and GLM analyses.

[5] CRS = Conner's Rating Scales

Table 24: Examining the change from pre-test to post-test among teacher's ratings of youth

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS: Conduct Problems – Teacher Rating (n=684)	0-24		2.17	2.66	-3.170***	0.000	↓ Is better	0.896
CRS: Hyperactivity – Teacher Rating (n=684)	0-21		3.41	3.35	0.420	0.675	↓ Is better	0.926
CRS: Inattentive-Passive – Teacher Rating (n=684)	0-24		4.29	4.34	-0.337	0.736	↓ Is better	0.881
Hyperactivity Index – Teacher Rating (n=684)	0-30		4.69	4.91	-1.326	0.185	↓ Is better	0.904

*p≤.05, **p≤.01, ***p≤.001.

Table 25: Examining the effect of time on teacher's rating of youth at post-test controlling for pre-test estimates (N=684)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[6]: Conduct Problems	2.17	2.66	13.762*	0.020	↓
CRS: Hyperactivity	3.41	3.35	0.176	0.000	↓
CRS: Inattentive-Passive	4.29	4.34	0.113	0.000	↓
CRS: Hyperactivity Index	4.69	4.91	1.758	0.003	↓

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

When analyses were stratified by the sex of the student (See Tables X and X in Appendix D), teachers reported more conduct problems for both boys and girls but this finding was only statistically significant among males. No other significant sex differences were found. Boys appear to be driving the significant increases in conduct problems reported by teachers.

Discussion

Over the course of the K-6th prevention programming, youth showed significant increases in perceived risk associated with substance use. This positive finding is juxtaposed with

[6] CRS = Conner's Rating Scales

significant increases in reported absenteeism. However, we do not know if there are benign circumstances that may explain this increase. Furthermore, while significant, the increase was extremely slight and on average the difference was less than one day. Finally, youth reported a significant increase in Family Bonding, a protective factor against ATOD use. Typically, ATOD initiation and use increase by age, particularly beginning around 5th grade and continuing on through adulthood. This is a result of maturation which increases exposure and opportunities to engage in ATOD use. Overall, youth in the K-6 prevention programs did not report any increases in ATOD use that were statistically significant. Therefore, all increases can be attributed to chance rather than meaningful increases which would be cause for concern. Only among females was there a significant increase in reported past 30 day marijuana use.

Both parents and teachers reported more hyperactivity and conduct problems between pre-test and post-test. This suggests that program participants were more likely to talk back, behave destructively, deny mistakes, quarrel, bully, fight, or behave as if they had a chip on their shoulder or were unhappy. However, it is possible that program participation causes caregivers and teachers to become more aware of a child's deficits as they try and improve their own coping skills and their relationships with the children.

Teacher reports of increasing conduct problems appear to only involve males. The timing of teacher surveys may explain some of this effect, particularly if teachers are surveyed at the end of the school year when students are restless in anticipation of summer break. The undesirable results remain important to be aware of and take into consideration when planning survey administration. More importantly, prevention specialists need to be aware of these possible effects as they plan their programming. Their insight may well provide a better explanation for why there are both negative and positive findings.

VII. Strategies for success (SFS) 12-17

Background

In FY 09 there were 12 prevention programs addressing substance use with 12-17 year olds in New Mexico. Programs typically seek to build drug resistance skills which enable young people to recognize and challenge common misconceptions about tobacco, alcohol and other drug use. In addition, they try to improve personal self-management skills by teaching students how to examine their self-image and its effects on behavior, set goals and keep track of personal progress, identify everyday decisions and how they may be influenced by others, analyze problem situations, consider the consequences, reduce stress and anxiety, and look at personal challenges in a positive light. General social skills might also be emphasized, and students are taught the necessary skills to overcome shyness, communicate effectively and avoid misunderstandings, initiate and carry out conversations, handle social requests, utilize both verbal and nonverbal assertiveness skills to make or refuse requests, and recognize that they have choices other than aggression or passivity when faced with tough situations. Curriculums target a variety of risk factors for substance initiation and use (inadequate life skills, poor self management skills, poor social skills including refusal skills, mental health, early age of initiation of ATOD use, perceptions of use by peers, and perception of harm), as well as protective factors (life skills, especially stress and anger management, media literacy and bonding to school and other adults). Please see Appendix E for a list of all the programs funded with 12 to 17 funding.

A standardized instrument, the Strategies for Success (SFS) survey, which was developed for use with youth in New Mexico, was used to collect self-reported measures of substance use and related behaviors among the 12 to 17 year olds participating in these programs. This survey was revised and piloted last FY so that FY 09 is the first time it has been widely used across all 12 to 17 prevention programs. The survey consists of a core survey that asks about ATOD use. A version of the ATOD Core survey was created for middle school students (6^{th} through 8^{th} graders) and another version for high school students (9^{th} through 12^{th} graders). Questions were identical to ATOD questions used in the NM Youth Risk and Resiliency Survey (YRRS) survey in middle and high school. This was done deliberately so that we could compare the SFS data to YRRS data, which reflects the typical New Mexico student. Four additional modules were created and were optional to programs. These four additional modules were violence perpetration, violence victimization, internal resiliency, and external resiliency. Programs that focused particularly on building the resiliency of youth to resist ATOD used the resiliency measures because it was felt that these were better measures of the work they do. Additional programs also addressed social skills and life skills that would affect dealings with others. These programs used the violence modules as part of their evaluation. During this first year, however, most programs used all 5 modules to assess appropriateness with their populations.

Methods

Local evaluators for the 12-17 programs assessed participants at program entry and at program exit. Concerted effort on the part of local program providers and evaluators produced a large sample size of matching pre-test and post-test data. The sample size for middle school

students was 1,795). Among high school students the sample size was 815. These large sample sizes provided the opportunity to conduct sub-analysis by biological sex and ethnic group. Prior to analysis, aggregate datasets were collapsed so that only participants who completed both a pre-test and a post-test would be included in the analysis of outcomes data.

Analyses were conducted in SPSS on youth who have both complete pre-test and post-test data. Data were cleaned by running frequencies and cross-tabulations to check for missing data and outlier values. The ethnicity data were recoded to ensure consistency across all sites, and other variables were recoded, including reverse-coded when appropriate, so that sum scales and mean scales could be created to measure violence and resiliency constructs. Scale reliability analyses were conducted to examine internal validity before running sample demographics and descriptive statistics. A series of McNemar's tests were conducted on pre and post-test measures to assess significant changes over the course of the program. McNemar's test assesses the significance of the difference between two correlated proportions, such as might be found in the case where the two proportions are based on the same sample of subjects or on matched-pair samples. It is applied to 2 × 2 contingency tables with a dichotomous outcomes (e.g., yes/no, ever/never) with matched pairs of subjects. The alpha criterion set was .05 ($\alpha = <.05$). To confirm the results of the McNemar tests using a more conservative approach, we used the GLM procedure in SPSS. The pre-test and post-test means and frequencies were compared through Repeated Measures MANOVA with one within factor of time (pre and post **)**. Filters were applied and separate analyses were conducted to examine the total sample, boys, girls, and different ethnic sub-groups. To examine the effect size of the program between pre & post test a partial Eta squared was calculated (η_p^2). The partial Eta squared is the proportion of the effect + error variance that is attributable to the effect.

However, it is important to note, that the analyses described above, do not take into account the affects of age, race/ethnicity, nor biological sex on the outcomes. Therefore, while the partial eta-squared is a measure of effect, it cannot in these analyses distinguish between the effect of the program versus the effect of age, sex, or race/ethnicity. Thus, we chose to run additional regression analyses with the intent of controlling for the effects of demographic characteristics on the outcome of interest and isolate the effect of the program itself on the outcome of interest. The independent variables, i.e., age, sex, race/ethnicity, and pre-test scores, were regressed onto the dependent variable, i.e., the post-test score, to examine the overall variance accounted for in the outcome by the combination of demographics, and pre-test score. We report the standardized beta coefficients (β), 95% confidence intervals, level of significance, and the adjusted r-square of the entire model.

Comparing SFS findings with YRRS Comparison Data

Finally, we graphed the pre- and post-test frequencies against the equivalent measures in the YRRS to visually examine how the average SFS respondent in each grade compared with the average YRRS respondent. The YRRS survey is conducted during the fall of odd years. Data from 2007 were analyzed using Stata controlling for survey design effects. The total N for middle school respondents was 7,849 and for high school students, 11,075. When weighted to reflect the population, middle school data reflects almost 43,000 middle school respondents and high school data reflects almost 90,000 high school respondents. The YRRS data is considered a

representative sample of New Mexico students, and weighted results are reported, meaning they are representative of NM students within the grade and ethnic culture designated. In other words, results reported for each question on the YRRS can be considered to reflect the average New Mexico student's answer for the question, which provides us the opportunity to compare the average SFS participant with the average New Mexico student for each grade level. Although we did not test for significant differences between the two data sets, the YRRS does provide an excellent comparison group for assessing general differences between an average SFS student and the average New Mexico student not involved in SFS activities.

Where graphs with YRRS and SFS data are compared, the YRRS comparison sample reflects the same demographics as in the SFS sample. For example, when examining SFS Hispanic males, the YRRS comparison group includes only Hispanic males. It is important to note that YRRS data are collected only once per grade level (in this case, Fall 2007) whereas SFS data are collected at the beginning and end of each program, on average a span of 9 months, 1 school year. Therefore, YRRS data from the grade level collected was identified as "pre-test" comparison data, and YRRS data from the next grade level up was used as "post-test" comparison data in the figures presented, or represents 12 months. (For example, 7th grade *pretest* SFS data are compared to 7th grade YRRS data and 7th grade *posttest* SFS data are compared to 8th grade YRRS data). This reflects a 12 month time frame which is longer than the average time frame for assessing SFS students. Because maturation occurs over the year and affects the likelihood of ATOD use, YRRS post-test estimates may slightly exaggerate use at 9 months because it includes 3 additional months of maturation that SFS data do not.

Results of Middle School Analyses

Data from the 12-17 programs were collected at 16 sites utilizing the Strategies for Success survey instrument. The distribution of SFS program participants by site is captured in Table 26 below. Programs varied as to the number of participants based on the type of program and how students were identified to participate. Some programs were school-based programs whereas others were after school programs. For tables and graphs of all middle school results, please see Appendices E1 through E4.

Table 26: Distribution of SFS middle school program participants by site

Site	Curriculum Provided	Number of Participants	Percent of Total Participants*
Cornstalk Institute	Learning to Lead	40	2.20%
NIYL	Project Venture	173	9.60%
NCCBS	Natural Helpers, Too Good for Drugs	174	9.70%
Quay County	Project Northland	167	9.30%
SJCP	All Stars	227	12.60%
SFPS	Project SUCCESS	19	1.10%
SNMHD	Strengthening Families Program, Reconnecting Youth	53	3.00%

Site	Curriculum Provided	Number of Participants	Percent of Total Participants
Talking Talons	Talking Talons Youth Leadership	82	4.60%
Sandoval County SAP	Dare to Be You, Reconnecting Youth	93	5.20%
SFCC	Connecting to Courage	102	5.7%
Counseling Associates	Botvin's Life Skills Training	295	16.4%
SFMC	Project Venture	81	4.5%
Five Sandoval Pueblos	Project Venture	36	2.0%
Counseling Center	Nurturing Parenting Program	5	<1.0%
Farmington Municipal Schools	Second Step	124	6.9%
Native American Community Academy	Run to the Sun (Project Venture-based program)	124	6.9%
	Total	1795	99.7%

*Due to rounding, the percentage total is not exactly 100%

Most respondents were in 6th – 8th grade the ideal age range for which the survey was created. The sample was almost half female and half male and was predominantly Hispanic followed by Native American and white. Over half of respondents indicated that at home, they most often spoke a language other than English.

Table 27: Demographics for middle school SFS program participants at pre-test (n= 1,795)

Demographic	N	% SFS Program Participants
Grade		
4th grade	68	3.8%
5th grade	133	7.5%
6th grade	400	22.5%
7th grade	745	42.0%
8th grade	407	22.9%
9th grade	22	1.2%
Biological Sex		
Male	896	50.2%
Female	888	49.8%
Race/Ethnicity		
White	344	20.3%
Hispanic	715	42.2%
Native American	578	34.1%
Other	58	3.4%
Language Other than English Spoken Most Often[a]		
Yes	968	53.5%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

Prevalence of Substance Use among Middle School Respondents

Among the entire sample of middle schools students, we find that there are slight increases in reported substance use from pre to post-test. This includes increases in cigarette use, alcohol use, binge drinking and marijuana use. While statistically significant, this is largely due to the large sample size rather than a meaningful change in use which at most is a 1% increase (See Table 28 below). On the whole however, reported ever use of ATOD and past 30 day use is well below YRRS respondents. Reported prescription drug use decreases and increases depending on the substance; however none of these slight changes are statistically significant. (See Table 29 below.) The item asking about the use of prescription cough medicine was particularly confusing to respondents and the high prevalence likely reflects the use of over-the-counter cough medicines in addition to or instead of prescription cough medicines. This particular item has been removed from FY10's survey.

Table 28: Past 30-day ATOD use[a] differences from pre-test to post-test for middle school SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Cigarettes (n=1,672)	8.1 %	8.3%	.004***
Chewing Tobacco (n=1,779)	2.5%	3.0%	.263
Alcohol (n=1,642)	10.3%	10.4%	.001***
Binge Drinking (n=1,636)	5.1%	5.8%	.006***
Marijuana (n=1,736)	8.3%	9.3%	.000***

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 29: Past 30-day prescription drug use[a], differences from pre-test to post-test for middle school SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Any prescription medication not prescribed (n=1,660)	3.6%	4.1%	.480
Any cough medication not prescribed (n=1,759)	8.8%	8.6%	.892
Any prescription pain pills not prescribed (n=1,763)	3.1%	3.5%	.476
Any Ritalin, Adderal, or Prozac not prescribed (n=1,754)	1.6%	1.3%	.405
Any pres sleep aids or tranquilizers not prescribed (n=1,752)	2.3%	2.6%	.804
Any other medications not prescribed (n=1,751)	5.0%	4.5%	.415

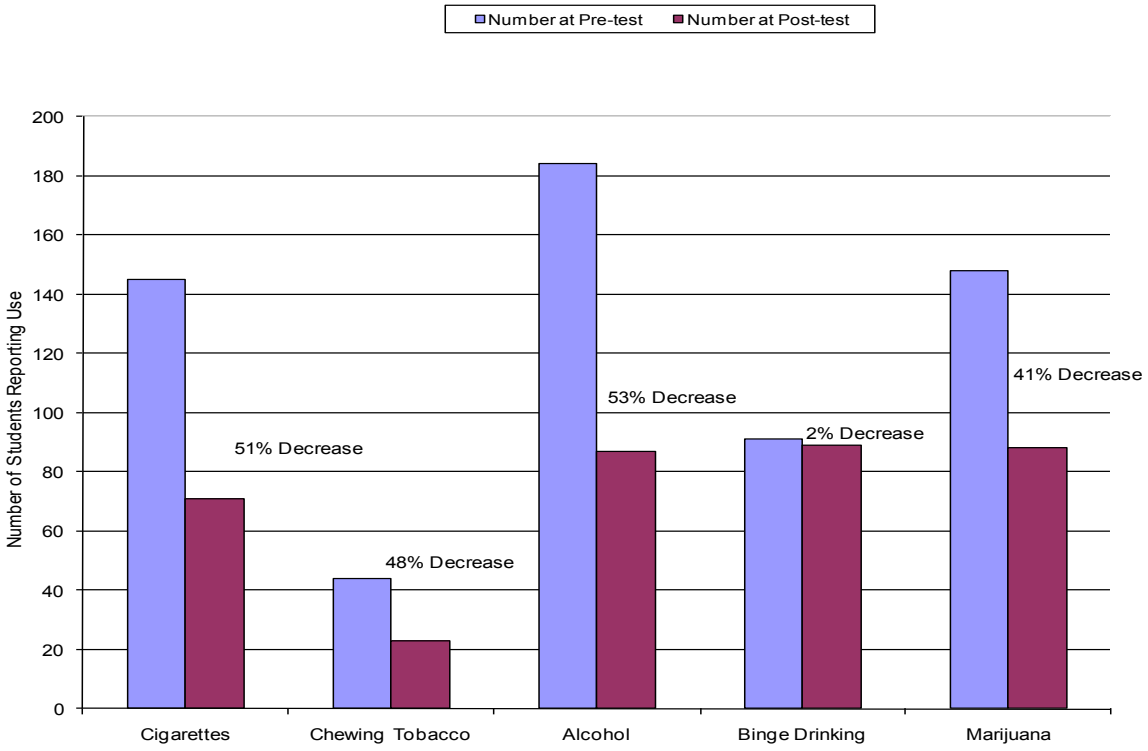
[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

As is frequently the case in reporting substance use among adolescents, floor and ceiling affects are observed. For example, among adolescents, most do not report past 30 day substance use at pre-test. As a result of maturation, over the course of the prevention programming, many adolescents may try substances. Because at pre-test so few report use, it is frequently possible at

post-test for more students to report ATOD use. This is referred to as a floor effect, meaning that if most students do not report use at pre-test the estimate is more likely to increase use because it cannot possibly decrease use. Alternatively, students may report very strong and positive relationships with their parents, a known protective factor against ATOD use. Because the relationships are typically very strong at pre-test, over the course of the prevention program, there may be an apparent decrease in this level of closeness. This is called a ceiling affect, essentially implying that the highest level has been reached at pre-test and the only room for movement is to decrease. Whether these effects are an artifact of the program or the result of maturation is unclear in the cross-tabulations. In addition, the likelihood of increasing or decreasing from pre-to post-test when most responses are at one extreme or the other is greater in general than if responses are evenly distributed, this is referred to as regression to the mean. When participants report very low substance use at pre-test, it is difficult to demonstrate reductions in substance use at post-test. Alternatively, when respondents report high protective factors at pre-test, it is difficult to demonstrate increases in these protective factors at post-test.

In order to get around the issue of floor effects, we also examined the self-reported substance use at post-test among *only those program participants reporting ATOD use at pre-test*. When examining only those who reported ATOD use at pre-test, we found that the percentage of program participants reporting substance use at post-test decreased by approximately 40% to 50% for every substance. Figure 15 graphs this change from pre-test to post-test. The one exception to this is binge drinking. This is concerning since binge drinking is very dangerous in and of itself and can lead to other dangers due to poor judgment while intoxicated.

Figure 15: Percent of SFS program participants reporting substance use at post-test among only program participants reporting substance use at pre-test



Results from analyses with the total sample combined

During FY 2009, substance use rates rose slightly among the SFS sample. However, when we look at only those who reported use at baseline, we see large decreases from pre to post-test with the exception of binge drinking. The perceived risk of harm related to ATOD use increased slightly as intended but not significantly. Another alcohol related outcome that was not in the desired direction was respondent attitudes towards alcohol use. Ideally these would increase between pre and post, but attitudes decreased slightly instead. The decrease was statistically significant, however, the actual change was from 3.64 to 3.57 on a scale from 1 to 4. It is likely a result of regression to mean. Most students indicated that it was very wrong for someone their age to consume alcohol. *Please refer to* Appendix E1 *for more detailed findings on the whole sample analyses and reporting templates.*

Middle School Results Stratified by Biological Sex

Tobacco use (all male and female students, grades 6-8)

Overall, SFS students reported a steady increase in *ever* using tobacco across grades. However, all grades showed lower rates of tobacco use within the past 30 days, with little to no increase in behavior reported across grades. Additionally, compared to YRRS data, the rate of tobacco use for SFS students is, on average, considerably lower than the average New Mexico student as reported by the YRRS (see figures 16 and 17). This data suggests SFS students are less likely to have *ever* used tobacco than non-intervention students, as well as less likely to have currently used tobacco products. Thus, SFS programs may have attenuated the tobacco use expected through maturation.

Among males, intentions to smoke increased significantly from 2.61 to 2.89 on a scale from 0 to 12. This does not appear to be alarming given that intentions are very low overall and this may reflect merely regression to the mean. Of note, both 6th grade males and females reported a significant increase in rates of smoking if their best friend offered a cigarette. This significant increase is not present for 7th or 8th grade and, in fact, 7th and 8th grade results show a decline in the rate of this behavior for SFS students. This data suggests middle school SFS students are demonstrating an intention to resist peer pressure for smoking. (See appendix E2 for all results stratified by sex.)

Figure 16: Percent of 6th-8th grade males who report ever trying cigarettes

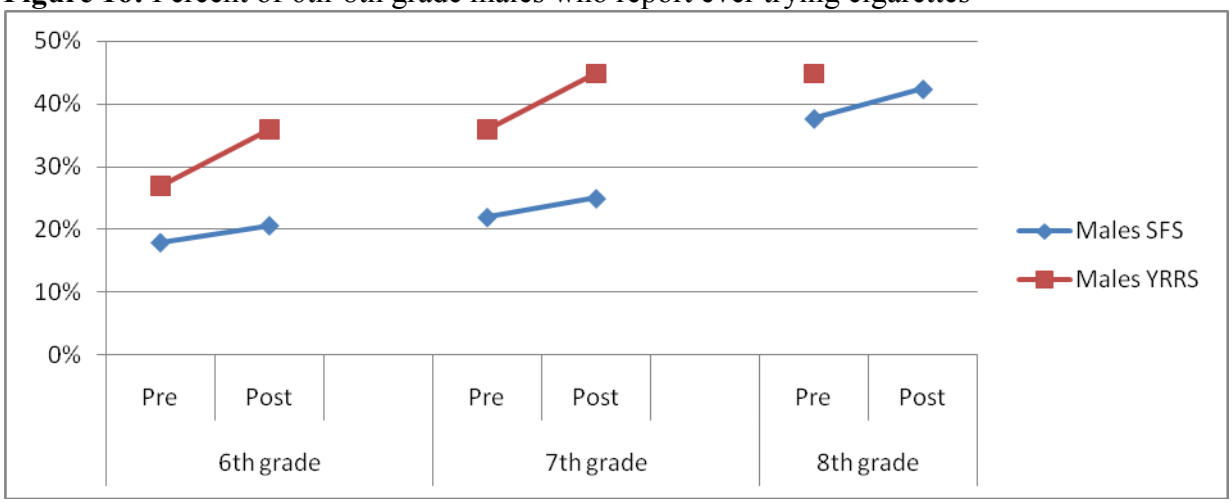
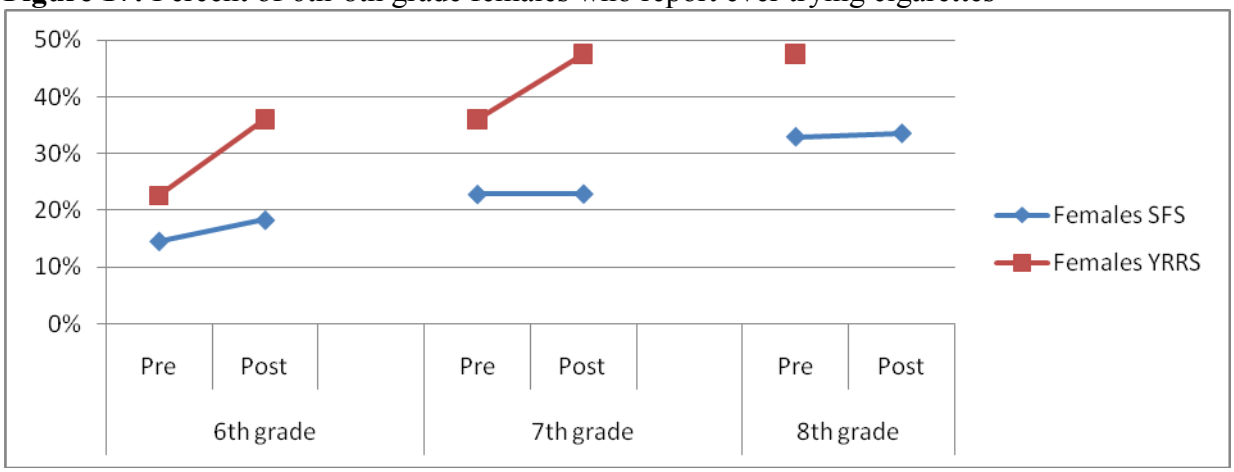


Figure 17: Percent of 6th-8th grade females who report ever trying cigarettes



Alcohol use (all male and female students, grades 6-8)

The data show significant increases in SFS student report of *ever* drinking alcohol across all grades and for both genders. Even though SFS students report considerably lower rates of use than YRRS students in 6th grade, by 8th grade both SFS and YRRS students report approximately the same rates of *ever* using alcohol (see figures 18 and 19). However, SFS students report considerably lower rates of alcohol use (both regular and binge drinking) *in the past 30 days* for each grade when compared to YRRS students. Additionally, increases between pre and post test are not significant for SFS student and show less increase when compared to YRRS data. Thus, SFS students have less current alcohol use than their YRRS counterparts and less than expected increases due to maturation. This suggests SFS programs may be positively influencing alcohol use for middle school students and attenuating the effects of maturation.

Figure 18: Percentage of 6th-8th grade males who report drinking alcohol in the past 30 days

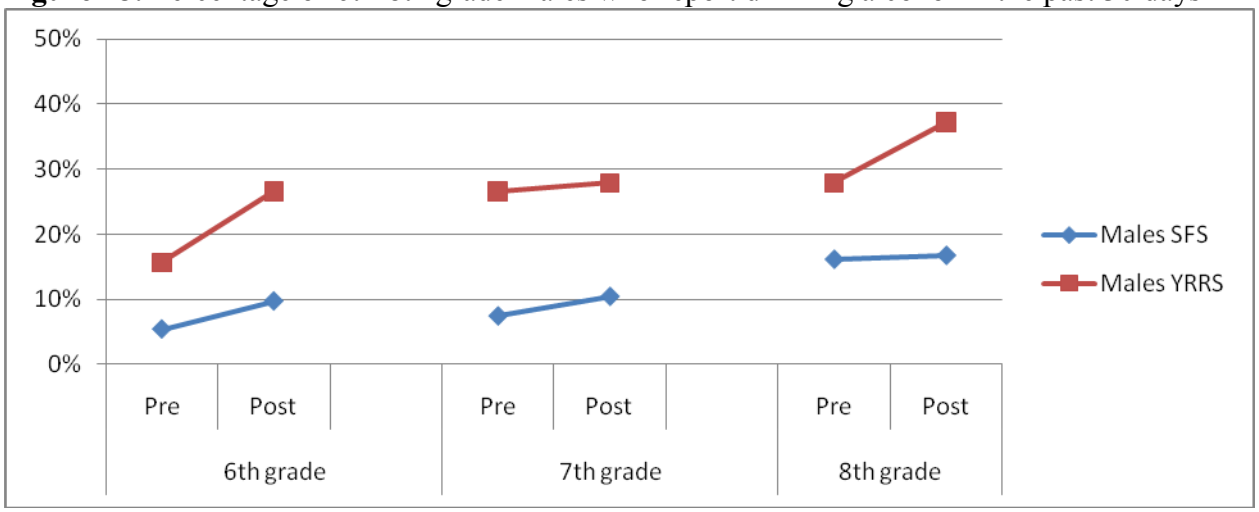
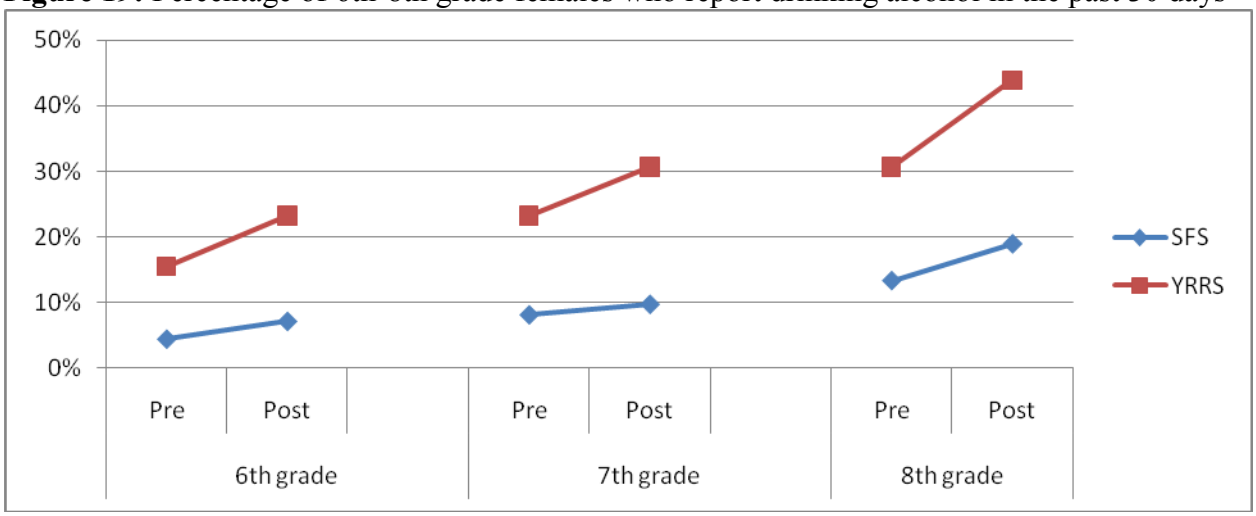


Figure 19: Percentage of 6th-8th grade females who report drinking alcohol in the past 30 days



Other Drug use (all male and female students, grades 6-8)

The number of SFS students reporting *ever* using marijuana increased significantly for both males and females over each grade (see figures 20 and 21). However, SFS student rates for *ever* using marijuana as well as use in the *past 30 days* were below the reported rates for YRRS students. Additionally, changes in *past 30 day use* were not significant by 8th grade. Why marijuana use has increased is unclear. This may indicate the need for middle school SFS programs to target marijuana use as part of future interventions. Inhalant use was relatively low for both males and females, and all grades, with females showing a decline in use each grade year.

Figure 20: Percentage of 6th-8th grade males who reported ever using Marijuana

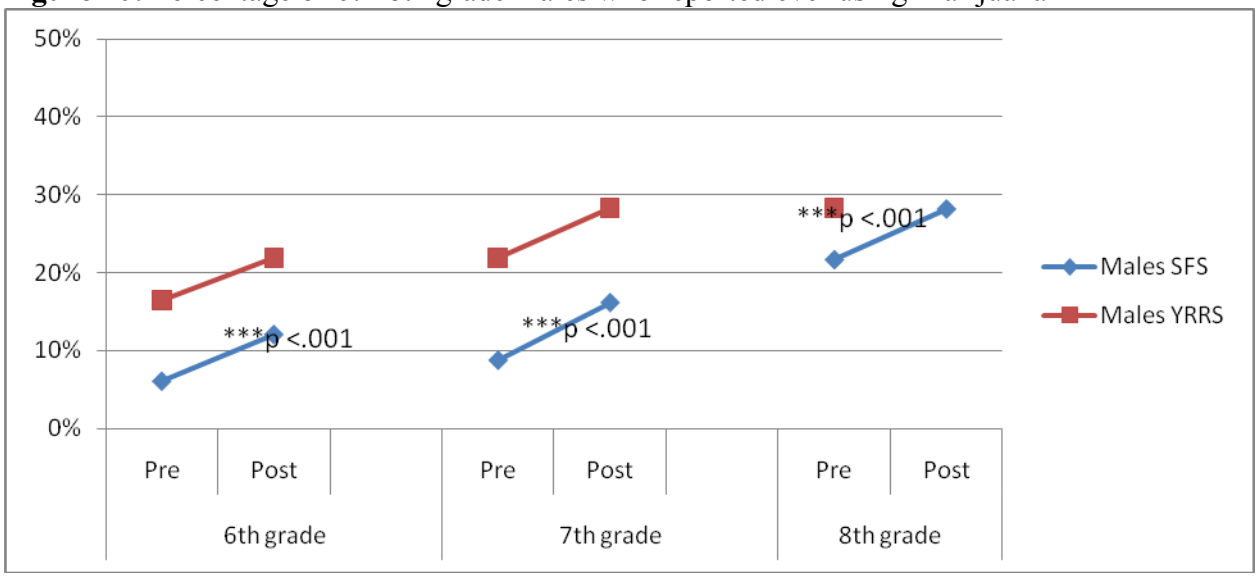
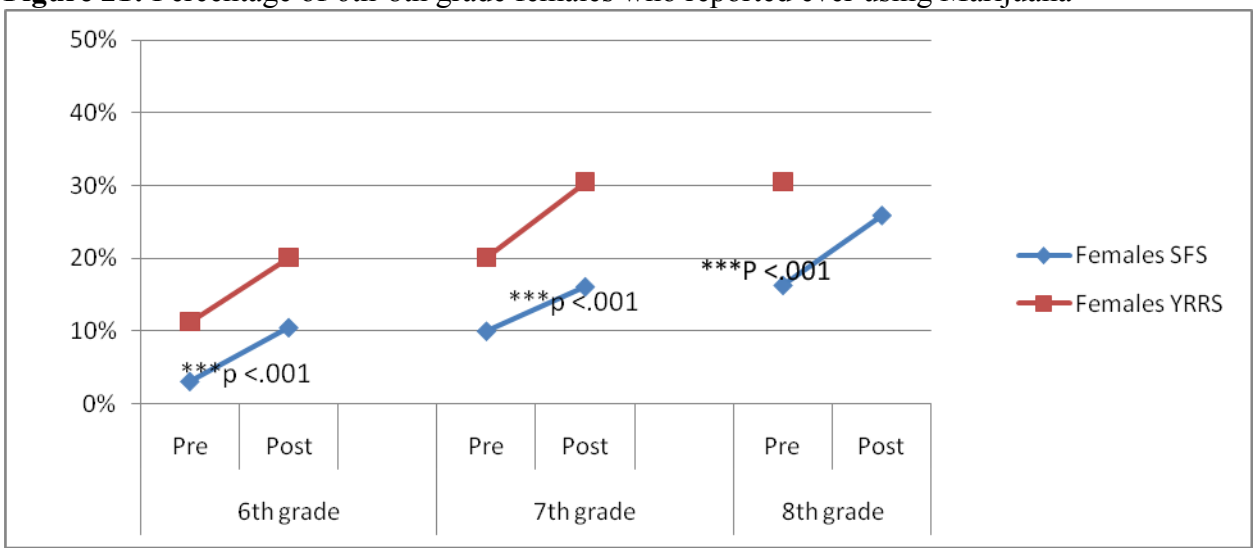


Figure 21: Percentage of 6th-8th grade females who reported ever using Marijuana

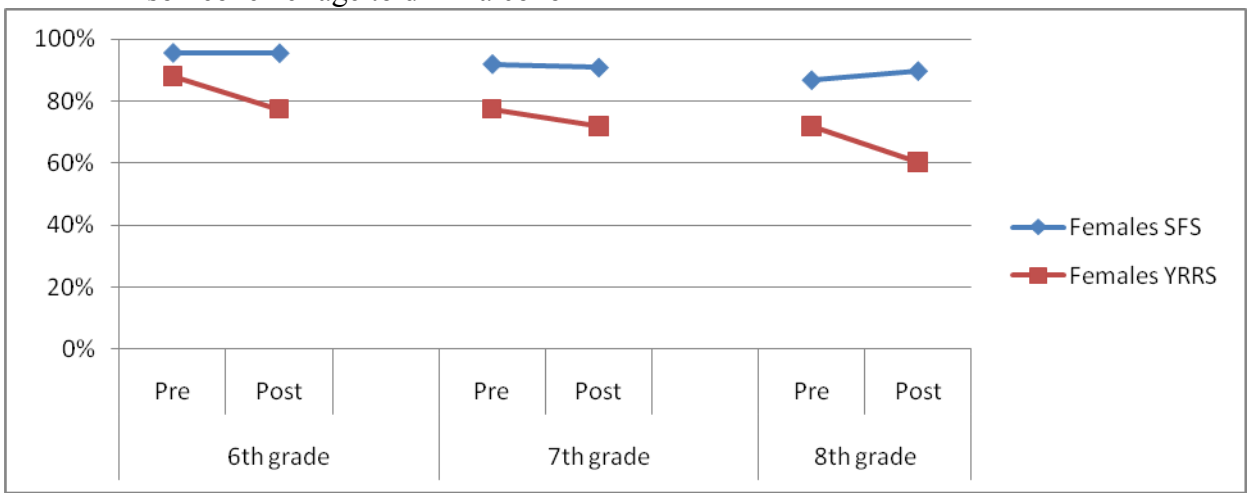


Attitudes and Norms towards ATOD use (all male and female students, grades 6-8)

Females generally did not change from pre-test to post-test on this measure, maintaining consistently high disapproval. (See Figure 22 below.) On the other hand, in the unintended direction are male respondents' attitudes towards alcohol use, which decreased slightly but significantly from 3.63 to 3.53 on a scale from 1 to 4. Again, overall attitudes are generally unfavorable towards alcohol use so this decrease may reflect a regression to the mean rather than a meaningful decrease. However, almost all SFS students across grades report they feel their parents think it is wrong for the student to drink alcohol. Similarly, over 80% of SFS students in all grades report they, themselves, feel it is wrong for someone their age to drink. These

percentages are all above the rates reported by YRRS students, indicating a greater belief by SFS students in positive social norms related to teen alcohol use.

Figure 22: Percentage of 6th-8th grade females who report it is wrong or very wrong for someone her age to drink alcohol



Results of High School Analyses

Ten prevention programs across the state provided ATOD prevention programming to 815 youth in grades 9 through 12. A total of 13 different prevention programs were used. Depending on whether the programs were school based or indicated as well as the type of program, the number of participants varied. (See Table 30 below). For detailed tables of results on the total high school sample, please see Appendix E5.

Table 30: Distribution of high school SFS program participants by site

Site	Curriculum Provided	Number of Participants	Percent of Total Participants*
Cornstalk Institute	Learning to Lead	31	3.8%
Rocky Mountain Youth Corps	Tutoring	25	3.1%
Excel Educational Enterprises	Effective Black Parenting Program, Learning to Lead	22	2.7%
HACC	Project SUCCESS	151	18.5%
NIYL	Project Venture	6	<1.0%
NCCBS	Natural Helpers, Too Good for Drugs	265	32.5%
Quay County	Project Northland	63	7.70
SFPS	Project SUCCESS	193	23.7%
Sandoval County SAP	Dare to Be You, Reconnecting Youth	50	6.1%
Five Sandoval Pueblos	Project Venture	9	1.1%
	Total	815	99.2%

*Due to rounding, the percentage total is not exactly 100%.

Most respondents were in 9th and 10th grade followed by 11th and 12th grade. Males and females were almost evenly represented. The majority of respondents were Hispanic followed by white and Native American. Almost half of the sample reported speaking a language other than English at home most of the time. (See Table 31.)

Prevalence of Substance Use

Reported prevalence of ATOD was higher than what was found in the middle school sample. On a positive note, there were significant decreases in reported past 30 day alcohol use and binge drinking. (See Table 32.) There were slight declining trends in past 30 day cigarette use and use of prescription medicines not prescribed. There were slight increases in the use of chewing tobacco (but fairly low reported use relatively to other substances) and marijuana use. There were no significant changes in the frequency of ATOD use. Table 33 shows the average number of times drugs were used in the past 30 days. On average, most were used less than 1 time in the past 30 days. This is because most of the sample reported no use of these drugs. It is

difficult to decrease use when the average frequency is already less than one. To get around the issue of floor effects, we also examined the self-reported substance use at post-test among only

Table 31: Demographics for high school SFS program participants at pre-test (N=815)

Demographic	N	% SFS Program Participants
Grade		
Not in school	3	<1.0%
8th grade	3	<1.0%
9th grade	423	52.0%
10th grade	138	17.0%
11th grade	141	17.3%
12th grade	105	12.9%
Biological Sex		
Male	396	48.9%
Female	413	51.1%
Race/Ethnicity		
White	119	14.7%
Hispanic	541	67.0%
Native American	103	12.7%
Other	45	5.6%
Language Other than English Spoken Most Often[a]		
Yes	377	46.4%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

those program participants reporting ATOD use at pre-test. When examining only those who reported ATOD use at pre-test, we found that the percentage of program participants reporting substance use at post-test decreased by nearly 35% to 55% for every substance. Figure 23 graphs this change from pre-test to post-test.

Table 32: Past 30-day ATOD use[a] differences from pre-test to post-test for high school SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Cigarettes (n=809)	20.7%	19.6%	.503
Chewing Tobacco (n= 811)	4.8%	6.5%	.082
Alcohol (n=811)	36.7%	32.8%	.023*
Marijuana (n=810)	25.2%	25.9%	.685
Binge Drinking (n=811)	23.6%	19.8%	.019*
Any Prescription Medication Not Prescribed (n=802)	9.5%	9.1%	.848

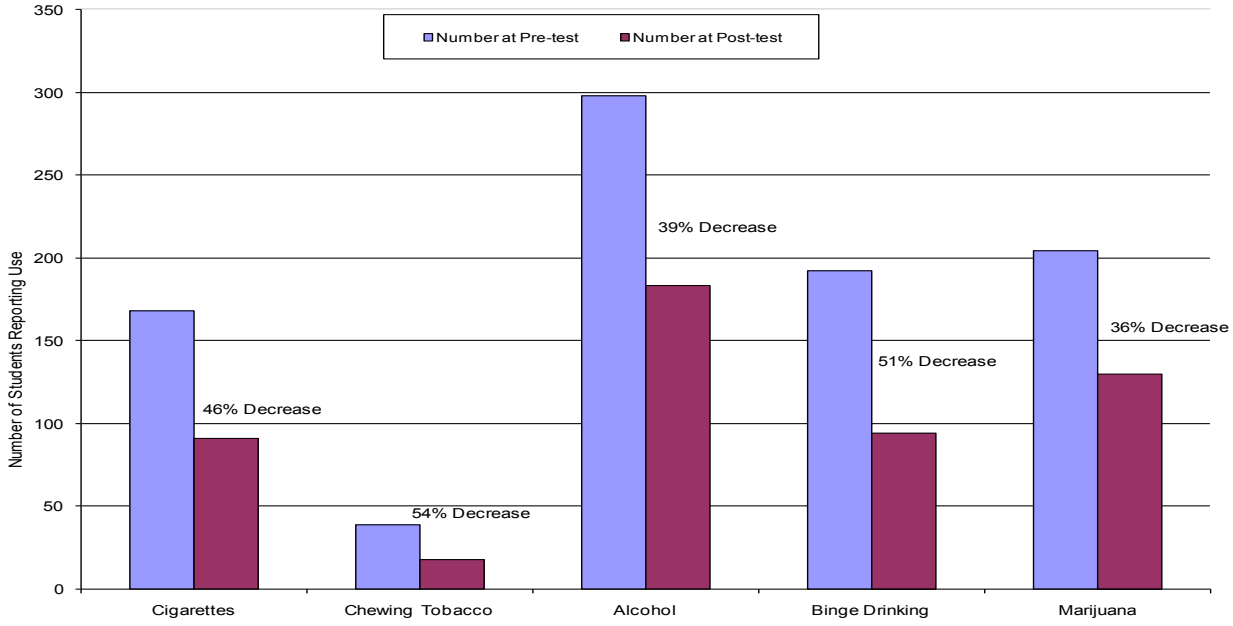
[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 33: Frequency of ATOD use[a], differences from pre-test to post-test for high school SFS program participants

Substance	Pre-test Mean	Post-test Mean	t-value
Marijuana (n=810)	.55	.54	0.83
Cocaine (n=809)	.06	.07	-0.85
Inhalants (n=808)	.09	.06	1.82
Heroin (n=813)	.04	.05	-0.51
Methamphetamines (n=811)	.05	.03	0.94
Ecstasy (n=811)	.05	.05	-0.14

[a] 0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
*p≤.05, **p≤.01, ***p≤.001.

Figure 23: Number of SFS program participants reporting substance use at post-test among only program participants reporting substance use at pre-test



Results of analyses with the total sample combined

During FY 09, ATOD use remained stable or decreased among high school respondents. Both measures of alcohol use past 30 day any use and past 30 day binge drinking both decreased significantly and meaningfully among the whole sample which indicates that youth may be applying the knowledge they've learned about alcohol use and binge drinking. This is a welcome change compared to the increases we saw among middle school respondents. *Please refer to* Appendix E5 *for more detailed statistical findings reported in the 12-17 High School Prevention Program findings sheets.*

Results from analyses stratified by biological sex

When examining results stratified by sex, it's important to keep in mind that the overall actual number of respondents in 11th and 12 grades begins to decrease, which results in findings in those grades to be less precise then we might prefer. Although confidence intervals are not reported, keep in mind that small n may influence the findings in 11th and 12th grade. For all tables and graphs of analyses stratified by biological sex, please refer to Appendix E6.

Tobacco use (All Male and Female SFS High School Students, grades 9-12)

Reported rates of tobacco use *in the past 30 days* showed relatively stable trends. Tobacco use rates at the end of 12th grade paralleled use rates at the beginning of 9th grade for males and females showed a small, non-significant increase in tobacco use over time (see figures 24 and 25). Reported tobacco use by SFS students remained below YRRS reports in almost all cases, suggesting SFS programs may be attenuating expected maturation effects.

Alcohol use (All Male and Female SFS High School Students, grades 9-12)

Overall, male SFS students' report of alcohol use *in the past 30 days* dropped between 9th and 12th grade, with a decreasing trend occurring between 11th and 12 grades. Furthermore, rates of alcohol use were markedly lower for SFS students by the end of 12th grade when compared to YRRS counterparts. The most pronounced differences were seen for decreased SFS male report of binge drinking in the past 30 days, compared to steady increases reported by YRRS students (see figure 26).

Figure 24: Percent of 9th-12th grade males who report smoking cigarettes in the past 30 days

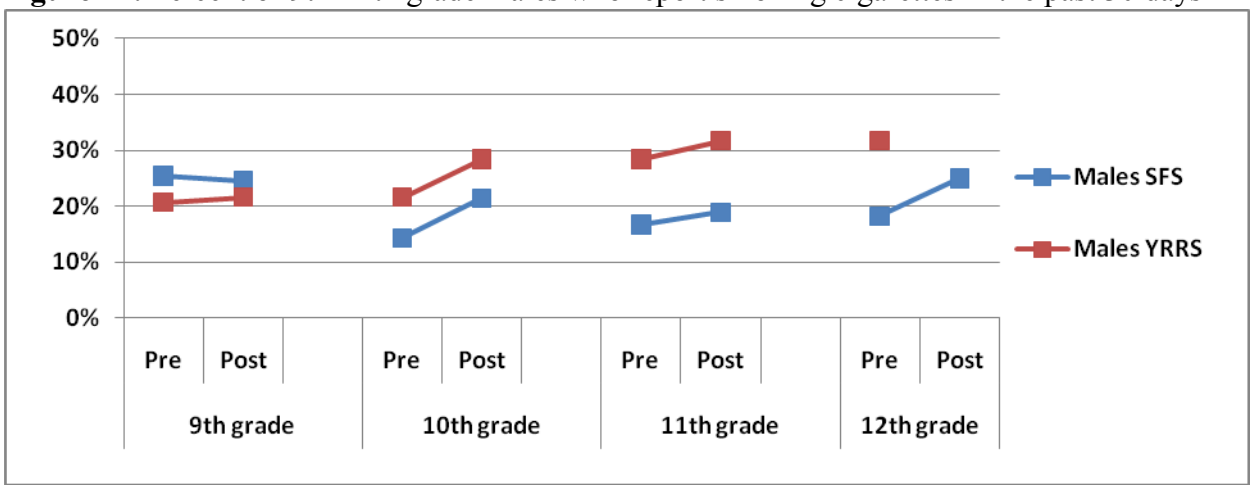


Figure 25: Percent of 9th-12th grade females reporting smoking cigarettes in the past 30 days

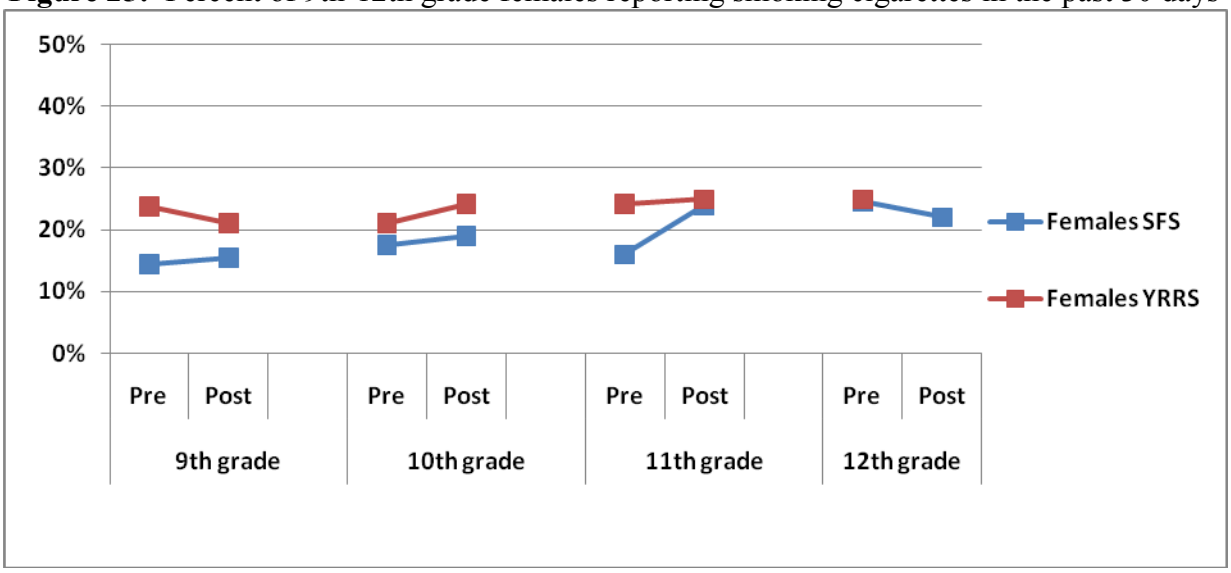
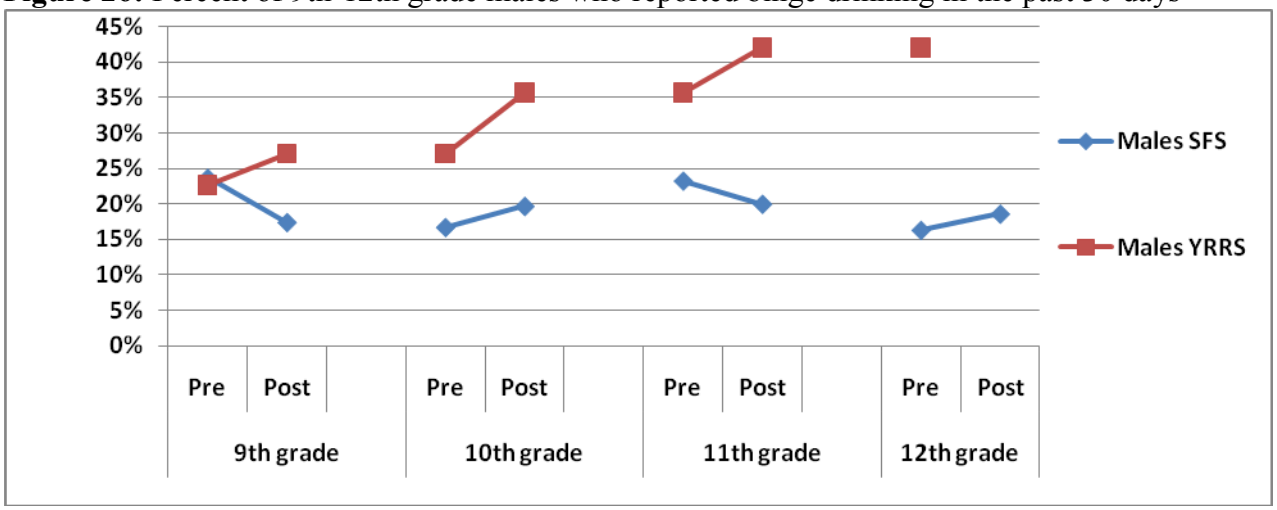
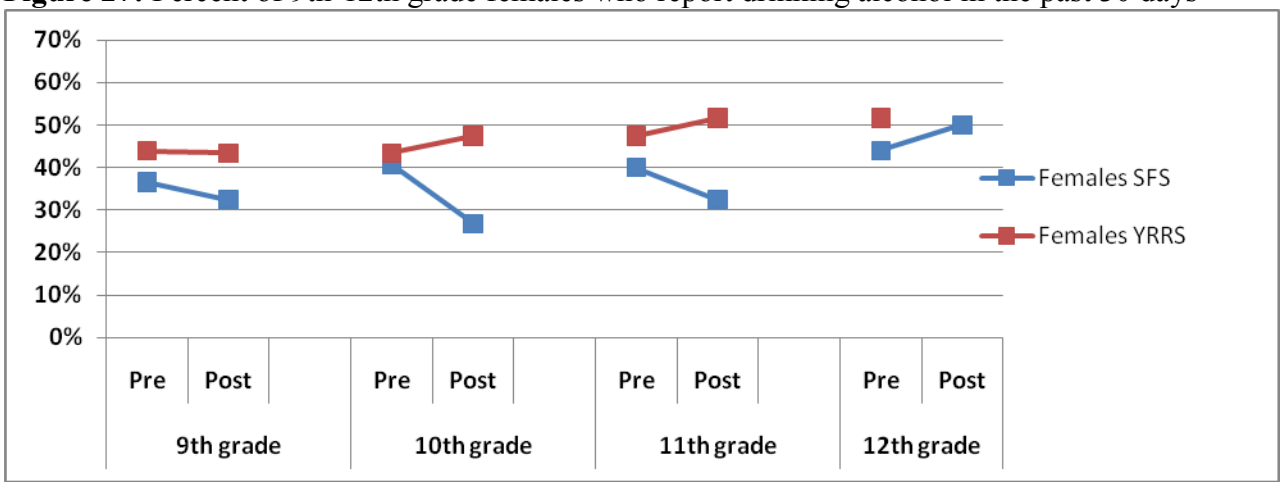


Figure 26: Percent of 9th-12th grade males who reported binge drinking in the past 30 days



Among females reporting drinking alcohol *in the past 30 days,* those in SFS programs reported lower rates of use from pre- to post-test in 9th, 10th, and 11th grades. Even though the decreases were not sustained between grades, this does suggest SFS programs may be influencing short-term alcohol use (see figure 27) for these grades. This assessment is further supported by YRRS comparison data which, in this instance, reports either maintaining or increasing alcohol use for female students between these grades.

Figure 27: Percent of 9th-12th grade females who report drinking alcohol in the past 30 days

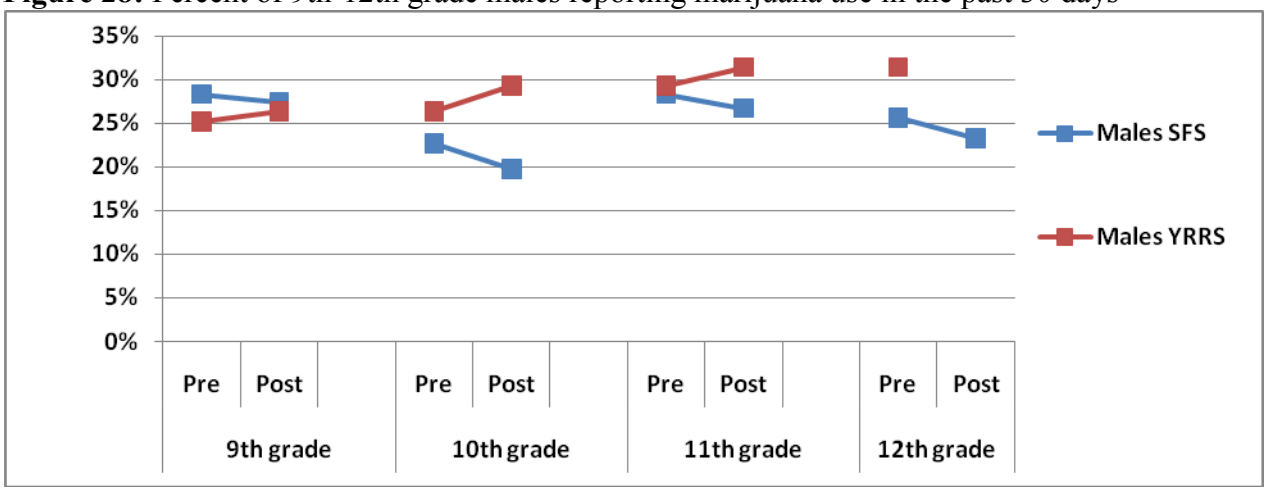


Drug use (all male and female SFS high school students, grades 9-12)

Similar to female patterns of alcohol use, male SFS students reported decreases in *past 30 day* marijuana use for each grade. Although the decrease was not maintained between 10th and 11th grades, decreased reported use of marijuana both within and between 11th and 12th grades is an important finding (see figure 28). This is particularly relevant given the general trend toward increasing marijuana use across all grades for male YRRS students, and suggests SFS programs may be positively impacting male marijuana use.

Data showed increasing rates of marijuana use for 10th, 11th, and 12th grade females. Female use rates over all grades were almost equal when comparing baseline 9th grade data to post-test 12th grade data; the reason for a spike in use for 10th grade females and large decline in use at the beginning of 11th grade is unclear. Together, these findings may signal a need to increase SFS

Figure 28: Percent of 9th-12th grade males reporting marijuana use in the past 30 days



program activities addressing marijuana use, particularly for females (even though increases in marijuana use for females were non-significant). (See Appendix E6.)

Because of the smaller number of responses, particularly for 11th and 12th grades, changes for a relatively few number of students could result in a false impression of dramatic change between pre-test and post-test. This is particularly true in instances where overall report of a behavior is low, as is the case for many of the illicit drug use questions. In general, though, reports of illicit drug use for high school students participating in SFS programs were lower than reported use of YRRS students for both males and females. Thus, SFS programs may have had some impact on drug use behavior. A larger sample size would be desirable for a more definitive assessment.

Attitudes and Norms toward ATOD use (All Male and Female High School Students, grades 9-12)

In general, both male and female SFS students are more likely to agree that it is wrong for someone his or her age to drink alcohol (see figure 29 for males). Additionally, SFS male high school students are less likely to report peer use of alcohol or drug use as compared to YRRS male high school students. However, female SFS students overall report similar or higher rates of peer alcohol and drug use at pre-test than YRRS students. Interestingly, at post-test female SFS students report a sharp drop in having peers that use alcohol or drugs (see figure 30). This suggests that SFS programs are positively influencing skills for choosing pro-social friendships related to ATOD in the immediate context but this influence may not sustain over time.

Figure 29: Percent of 9th-12th grade males who think it is wrong for people their age to drink alcohol

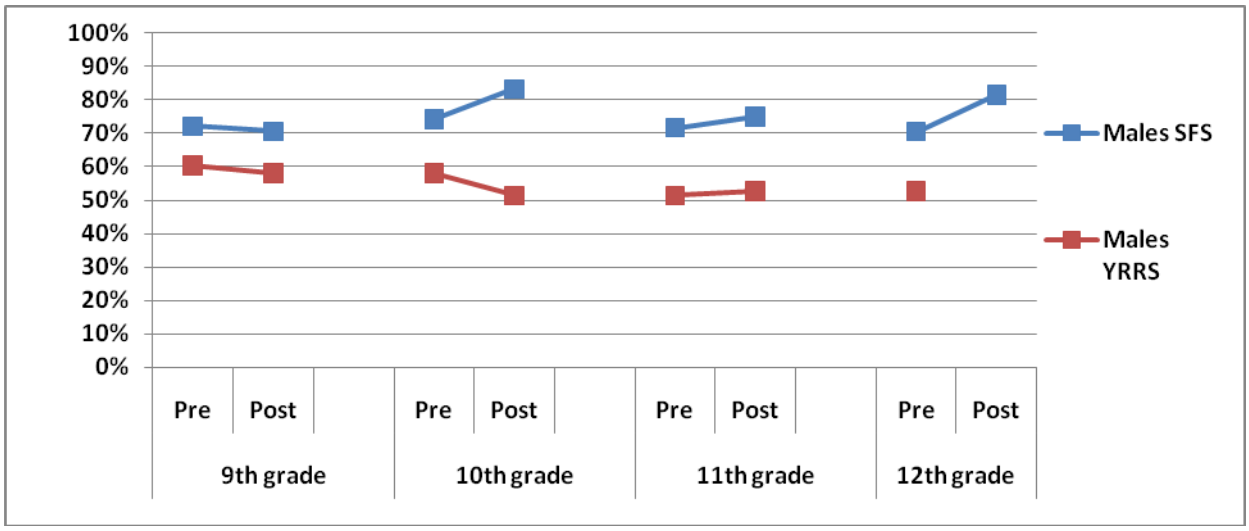
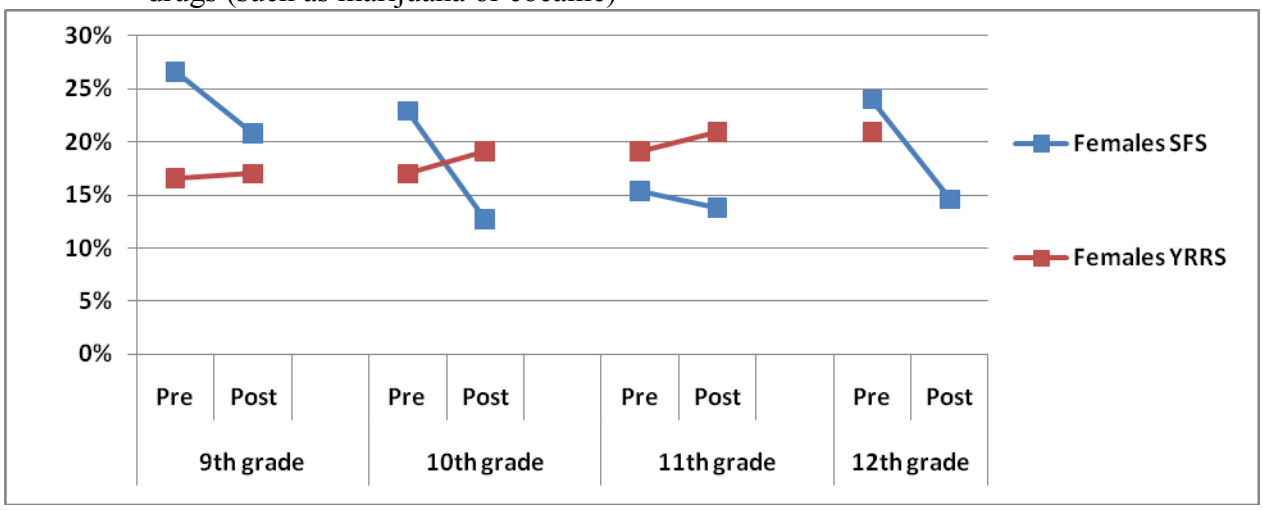


Figure 30: Percent of 9th-12th grade females who report most or all of their friends have used drugs (such as marijuana or cocaine)



Strategies for success (SFS) 12-17: Hispanic and Native American subgroup analyses

Background

The diverse population of New Mexico is reflected in the demographics of the SFS program participants. At the local level, there is a particular interest in examining the outcomes of two subgroups: Native Americans and Hispanic adolescents. These separate analyses are important since there are few studies focusing on drug prevention for minority and rural youth.

Methods

During the analyses of the SFS data, it was believed that the SFS dataset was sufficiently large enough to examine unique differences in two subgroups: Hispanic and Native American Youth. Demographic information was collected as part of the SFS survey instrument; respondents were allowed to choose more than one race/ethnicity when completing the survey, although PIRE ultimately developed a hierarchy to code the race/ethnicity data so that it would be meaningful at the state and local level. First, a filter was applied to the dataset to pull out all respondents coded as Hispanic (subcategories included Mexican/Mexican American/Chicano, Spanish, Central American, South American, Puerto Rican, Cuban, and Other) and analyses were run on that subgroup. The analyses were analogous to the total sample analyses and included univariate statistics, demographic frequencies, descriptive statistics, paired t-test analysis, and GLM. Similarly, a filter was applied to pull out all respondents coded as Native American (subcategories included Pueblo, Navajo, Apache, and Other) and the analyses were replicated.

General Results for Hispanic Middle School Participants

Surveys were completed by 715 middle school program participants who self-identified as Hispanic, including the subcategories of Mexican/Mexican American/Chicano, Spanish, Central American, South American, Puerto Rican, Cuban, and Other. Of the Hispanic participants, 353 were male and 363 were female. The average age for participants was 12.4 years old. More than half (64.3%) lived in homes where a language other than English was spoken.

Overall, substance use among Middle School Hispanic SFS Program Participants increased from pre-test to post-test. The largest gain was observed in binge drinking which jumped from 4.9% to 7.2%. This finding, along with the results for past 30-day alcohol and marijuana use were statistically significant using the McNemar test. In addition, a positive gain on the Parental Attitudes Toward Alcohol Use measure is counteracted by undesirable decreases for the scores on the Perceived Risk of Harm of ATOD Use measure and the Respondent Attitudes Toward Alcohol Use measure. Also, while reported tobacco use remained at 6.8% between pre-test and post-test, the sum score measuring Intentions to Smoke increased from pre to post-test, suggesting that further tobacco prevention efforts are needed.

Table 34: Demographics for middle school Hispanic SFS participants at pre-test (N=715)

Demographic	N	% SFS Program Participants
Grade		
Not in school	2	<1.0%
4th grade	15	2.1%
5th grade	23	3.2%
6th grade	148	20.7%
7th grade	300	42.3%
8th grade	222	31.3%
Biological Sex		
Male	353	49.4%
Female	361	50.6%
Language Other than English Spoken Most Often[a]		
Yes	453	64.3%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

Table 35: Past 30-day ATOD use[a] differences from pre-test to post-test for middle school Hispanic SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Cigarettes (n=665)	6.8 %	6.8%	.417
Chewing Tobacco (n=710)	1.5%	2.4%	.210
Alcohol (n=644)	11.2%	11.5%	.023*
Marijuana (n=698)	6.9%	7.8%	.008**
Binge Drinking (n=641)	4.9%	7.2%	.002**

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Findings from the GLM analyses support the results obtained from the McNemar tests and the paired t-test analysis, although only the measure for binge drinking achieved statistical significance using GLM whereas Marijuana use and alcohol use were no longer statistically significant. Based on the findings, it seems that lowered perceptions around risks associated with substance use and more accepting attitudes about alcohol use are the primary contributing factors to the broad increased substance use captured among program participants. The effect sizes were too small to be measured. See Appendix E3 for complete analyses.

Middle School SFS Hispanic Subpopulation Compared with Middle School YRRS Hispanic Subpopulation

Tobacco use (Hispanic students, grades 6th-8th)

Overall, the reported use of tobacco by Hispanic male SFS students showed non-significant increases of both ever using tobacco and tobacco use in the past 30 days. For females, use leveled and then declined over 7th and 8th grade (see figures 31 and 32). However, intention to smoke within the next year and intention to smoke if offered a cigarette by their best friend rose significantly for females in 7th grade. Intentions to smoke in the next year also rose significantly for 6th grade males. Thus, programs may want to consider an increased focus on smoking intentions and norms in the future.

Both males and females reported considerably lower tobacco use rates than YRRS students over time. This is particularly noteworthy when use rates were similar at 6th grade pre-test (the baseline data point), suggesting SFS and YRRS groups had similar tobacco use prior to any intervention. Together, these findings imply SFS programs may be positively influencing tobacco use for Hispanic students.

Figure 31: Percent of 6th-8th grade Hispanic females reporting ever smoked cigarettes

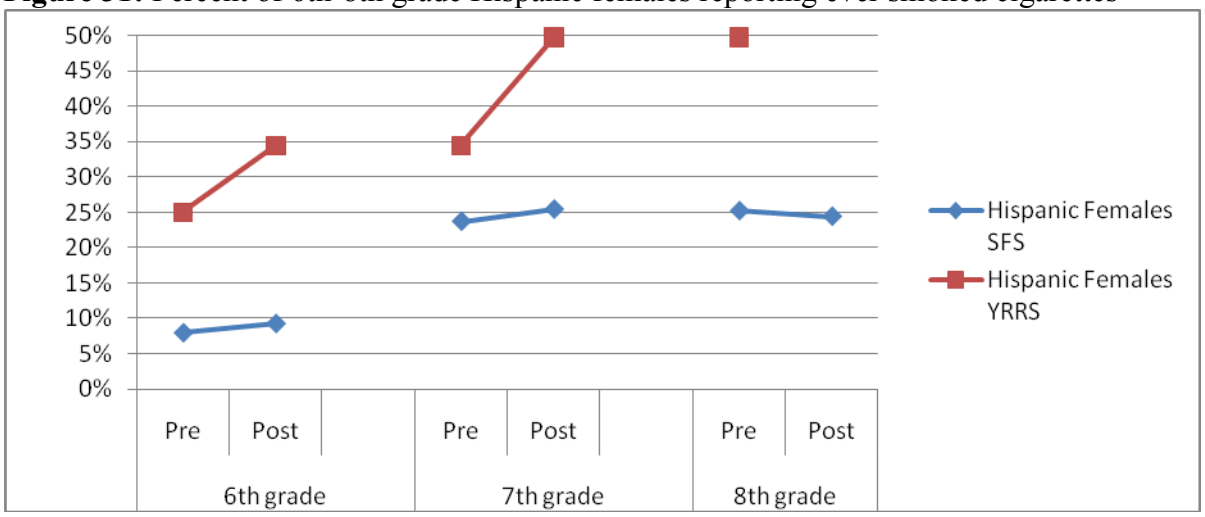
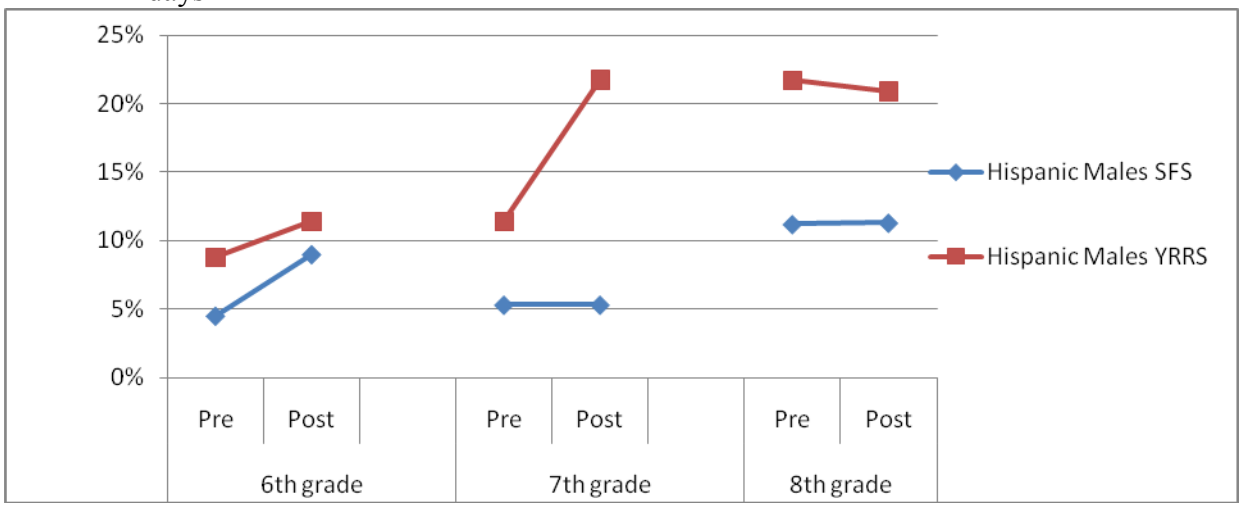


Figure 32: Percent of 6th-8th grade Hispanic males who report smoking cigarettes in the past 30 days



Alcohol use (Hispanic students, grades 6th-8th)

The percentage of Hispanic middle school students reporting *ever* drinking alcohol rose significantly for both males and females in the 7th and 8th grades (see figure 33 for males). However, these SFS reported rates of alcohol use stayed below the YRRS reported rates for every data point related to *ever* drinking alcohol. Additionally, reported rates of drinking alcohol *in the past 30 days* demonstrated low recent drinking behavior for both males and females on their own and when compared to YRRS students (see figure 34). Even though each grade showed a slight increase in recent drinking for SFS students, the increase remained non-significant and its pattern suggests maturation may be the cause. These non-significant findings propose SFS programs may have a positive effect on Hispanic middle school students' *current* drinking behaviors.

Figure 33: Percentage of 6th-8th grade Hispanic males who report ever drinking alcohol

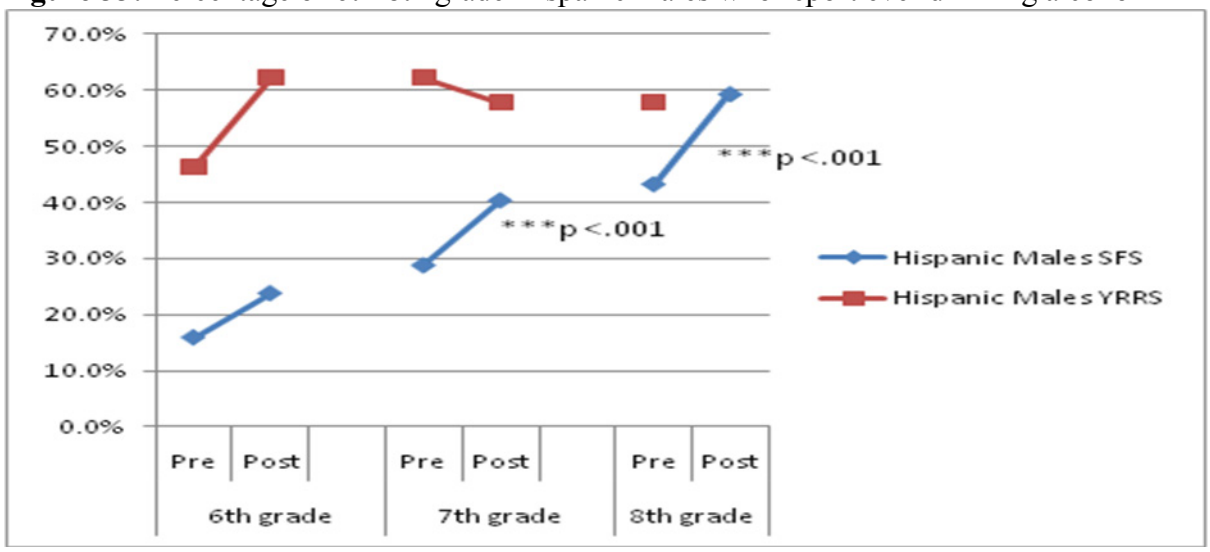
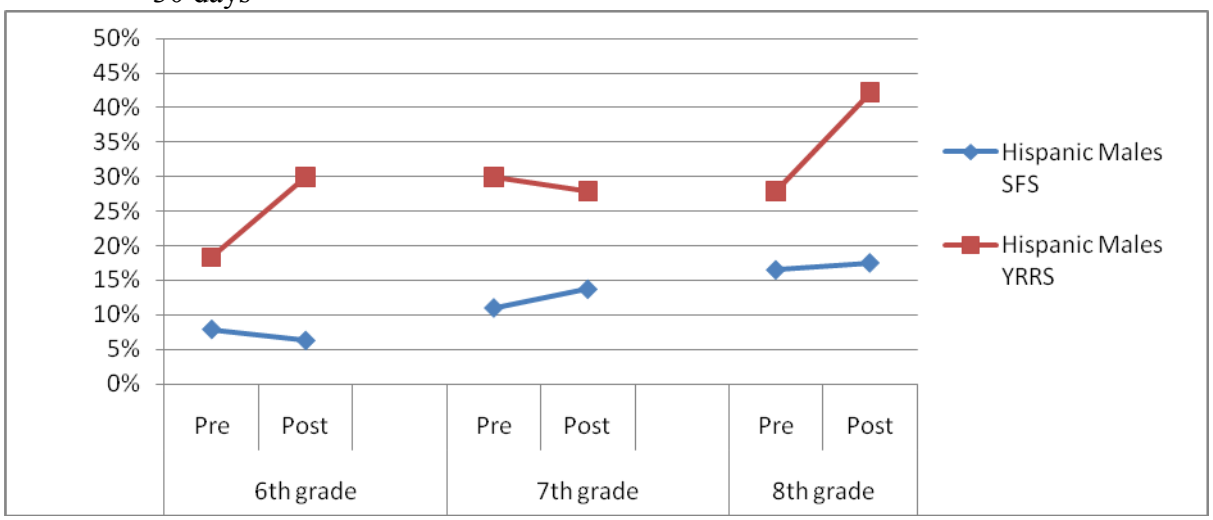


Figure 34: Percentage of 6th-8th grade Hispanic males who report drinking alcohol in the past 30 days



Drug use (Hispanic students, grades 6th-8th)

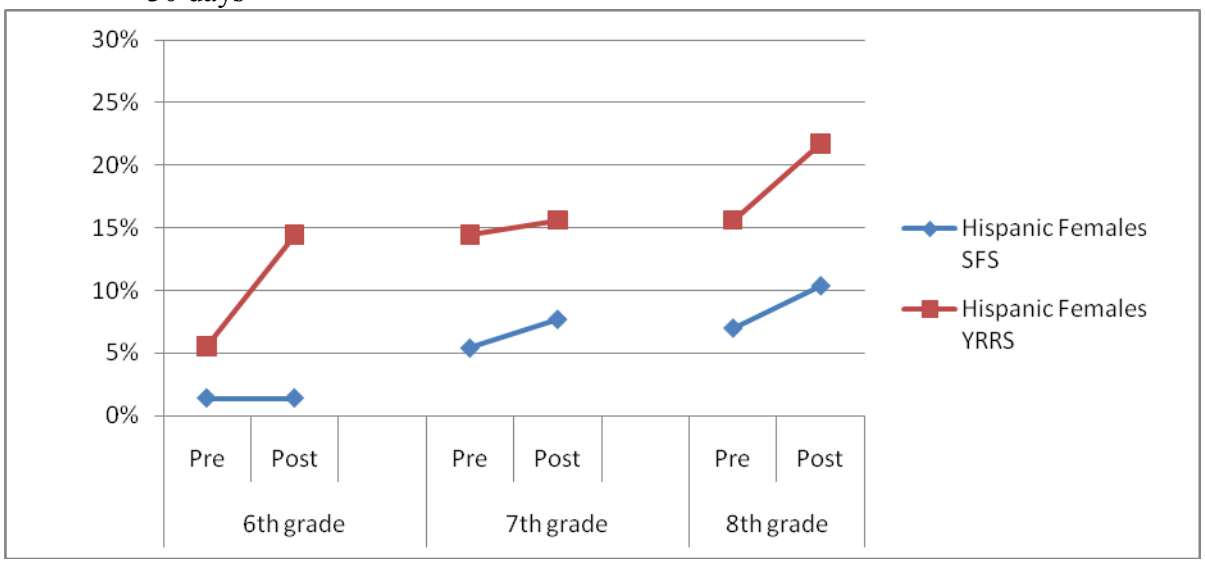
Non-significant increases in marijuana use, both *ever* used and used *in the past 30 days*, were reported by Hispanic males participating in SFS programs. Although Hispanic females report significant increases in *ever* using marijuana for 7th and 8th grades, no significant increases were found for marijuana use *in the past 30 days* for females (see figure 35). Additionally, marijuana use rates were well below those reported by YRRS students, even when baseline rates were similar for the two groups.

Reported use of inhalants by Hispanic males dropped considerably between 7th and 8th grades, with minimal use reported by the end of 8th grade. Hispanic females reported a non-

significant increase in use over 6th and 7th grades, but noted a decreasing trend between 8th grade pre- and post-tests. Additionally, female use of inhalants was considerably lower across all grades when compared to YRRS female students. By 8th grade, this trend was also seen for Hispanic males.

Overall, these findings suggest SFS programs may be positively impacting Hispanic student current drug use behavior. However, SFS groups may find it beneficial to increase program activities related to marijuana use.

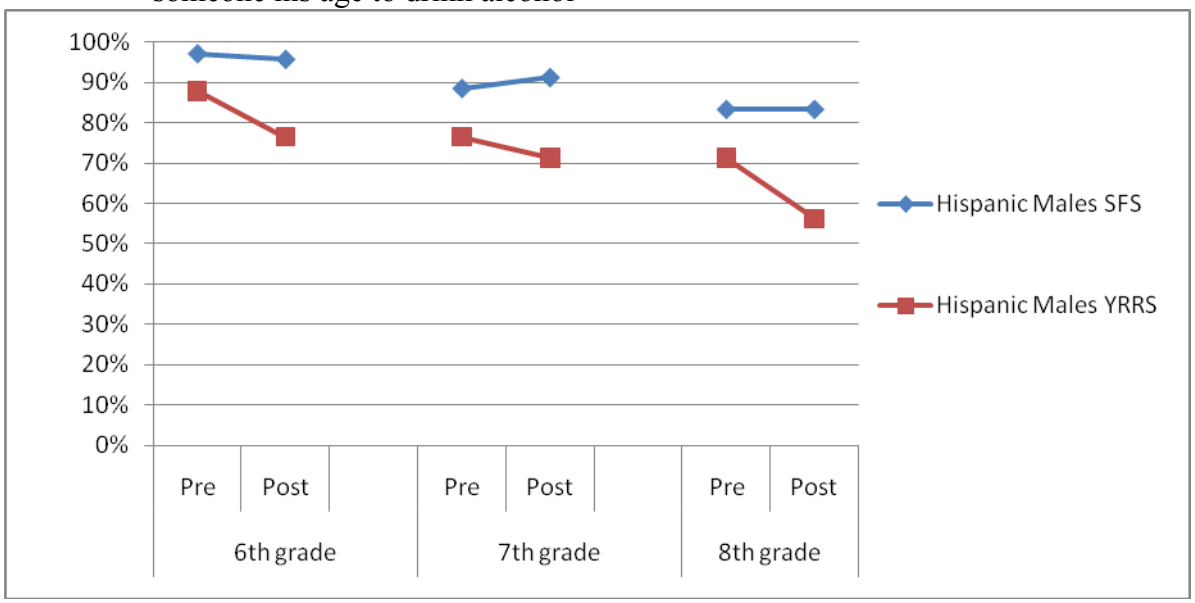
Figure 35: Percentage of 6th-8th grade Hispanic females who report using marijuana in the past 30 days



Attitudes and Norms towards ATOD use (Hispanic students, grades 6-8)

Almost all Hispanic middle school students participating in SFS programs report they feel their parents think it is wrong for the student to drink alcohol. Similarly, over 80% of Hispanic SFS students in all grades report they, themselves, feel it is wrong for someone their age to drink. These percentages are all above the rates reported by YRRS students, indicating a greater belief by SFS students in positive social norms related to teen alcohol use.

Figure 36: Percentage of 6th-8th grade Hispanic males who report it is wrong or very wrong for someone his age to drink alcohol



General Results for Hispanic High School Participants

Program participation among Hispanic students was slightly lower among high school-aged participants compared to middle school participants with 541 survey respondents. The average age of respondents was 15.7 years. Distribution by gender was nearly equal at 50% and slightly more than half (53.5%) of respondents were in the ninth grade compared to 14.8% in the 10th grade, 18.5% in the 11th grade, and 13% in the 12th grade. A primary language other than English was spoken in 52.8% of homes.

Table 36: Demographics for high school Hispanic SFS program participants at pre-test (N=541)

Demographic	N	% SFS Program Participants
Grade		
Not in school	1	0.2%
8th grade	0	0.0%
9th grade	289	53.5%
10th grade	80	14.8%
11th grade	100	18.5%
12th grade	70	13.0%
Biological Sex		
Male	269	49.9%
Female	270	50.1%
Language Other than English Spoken Most Often[a]		
Yes	285	52.8%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

The findings for substance use among Hispanic high school students were mixed. Unlike the results for the Hispanic middle school students, favorable decreases in substance use were observed for cigarettes, alcohol and binge drinking, with the latter finding statistically significant at p=.049. However, an increase in chewing tobacco use from 3.5% to 6.5% was statistically significant, although the increase in marijuana use from 22.9% to 24.8% was not. While only a smaller subgroup of students reported use of other illicit drugs, decreases in use were observed for inhalants, heroin, and methamphetamines, while use for cocaine and ecstasy remain unchanged. Desired changes between pre-test and post-test use for most prescription drugs were reported, with increased use for Ritalin, Adderal or Prozac and cough medication, although the cough medicine question is of questionable internal validity as respondents are known to report legitimate use of cough medication.

Outcome data analyses reveal more favorable findings including statistically significant increases in the perception of harm of ATOD use and decreases in peer substance use and frequency of riding with someone who had been drinking or driving after drinking. The trend for driving after drinking is also moving in the right direction. Parental attitudes toward alcohol use appear to relax as students get older, but respondent attitudes toward alcohol use remained the same between baseline and post-test. See Appendix E3 for complete analyses.

High School SFS Hispanic Subpopulation Compared with High School YRRS Hispanic Subpopulation

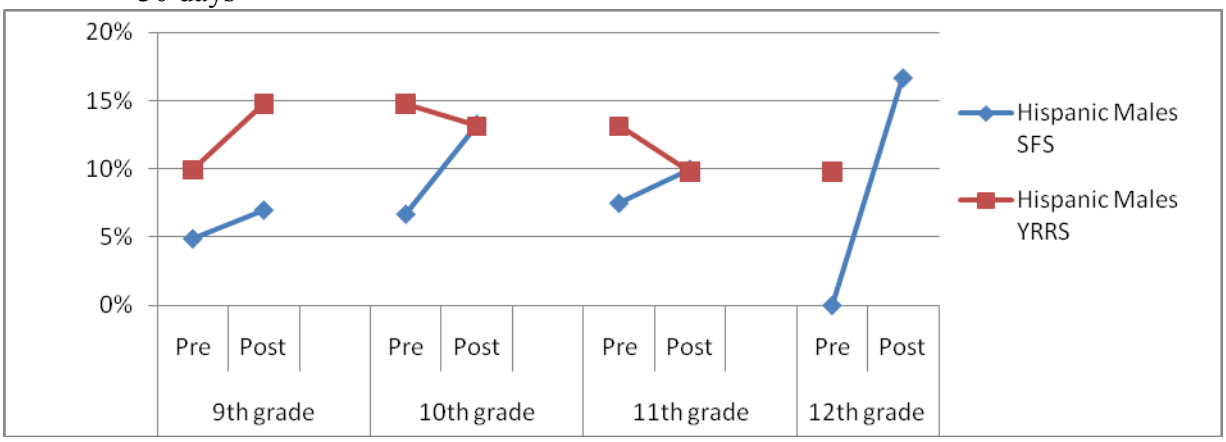
As was the case with analyses stratified by biological sex, when examining the Hispanic subpopulation stratified by sex, we find that particularly in grades 11 and 12, the sample size is quite small. Results in this section vary erratically and should be interpreted with caution. Confidence intervals indicating the variance in the measures therefore are not reported. However, since most of the findings in the Hispanic are not statistically significant, it clearly indicates that that there is considerable variance in how youth responded to the measures, which will decrease the likelihood of reaching statistical significance. It also indicates that the mean is somewhat misleading because a few extreme scores can dramatically alter the average and create a misleading picture overall.

Tobacco use (All Hispanic SFS High School Students, grades 9-12)

In general, Hispanic males in the SFS sample report increases in past 30 day tobacco use from pre- to post-test (both cigarette and smokeless tobacco across grades. None of these increases were statistically significant. Hispanic females also report increases in cigarette use in *the past 30 days* for grades 9, 10 and 11 (see figure 37). In general, trends in tobacco use are similar for SFS and YRRS students However, of note is the increase in smokeless tobacco use reported between pre- and post-test every year for Hispanic males. This is in direct contrast to YRRS reported declines (see figure 38). These findings could suggest Hispanic high school males involved in SFS are increasing smokeless tobacco use. However, given the drop in use between post-test of the prior year with pre-test of a current year, it is possible that these findings are effects of a smaller sample size (particularly for 12th grade) or increased trust in reporting these behaviors at post-test.

Figure 37: Percentage of 9th-12th grade Hispanic females reporting smoking cigarettes in past 30 days

Figure 38: Percentage of 9th-12th grade Hispanic males reporting smokeless tobacco use in past 30 days



Alcohol use (All Hispanic High School SFS students, grades 9-12)

Changes in alcohol use were mixed across sex and grades. Between pre- and post-tests, Hispanic males reported slightly higher drinking and binge drinking behaviors *in the past 30 days.* However, binge drinking rates seemed to level in 11th grade, with a marked decline in pre-test report of binge drinking for 12th graders. Even though a slight increase in binge drinking was seen between pre- and post-test for 12th grade, the overall number of Hispanic males reporting participation in binge drinking across all grades declined considerably and always well below YRRS Hispanic males (see figure 39).

Hispanic females reported declines in both drinking and binge drinking between pre- and post-test for 9th, 10th, and 11th grades, showing a halt of the maturation trend expected, and seen, by YRRS Hispanic female students. However, Hispanic females reported an increase in alcohol use during 12th grade. Again, this may reflect an actual increase in use or it may be the result of a smaller sample size. Additionally, the increases were not found to be significant in analysis.

Together, these findings suggest SFS programs may be positively impacting Hispanic student alcohol use.

Figure 39: Percentage of 9th-12th grade Hispanic males who report binge drinking in the past 30 days

Drug use (Hispanic students, grades 9-12)

Baseline results and general trends were the same for both SFS and YRRS Hispanic males on past 30 day marijuana use, however, overall the rates of use were slightly lower for SFS participants compared to YRRS from 9th grade post-test forward. Additionally, reports of past 30 day marijuana use declined by the end of 12th grade (see figure 40). This suggests SFS programs may be having some influence on marijuana use for Hispanic males, particularly at the beginning and end of high school.

Figure 40: Percentage of 9th-12th grade Hispanic males who report marijuana use in the past 30 days

Among SFS Hispanic females, reported marijuana use in 9th and 10th grades is actually higher than the reported YRRS rates. However, use dramatically drops between 10th and 11th grades, with reports suggesting rates of use lower than YRRS Hispanic females. By the end of 12th grade, overall use rates look very similar to 9th grade baseline and increases reported between pre- and post-tests for each grade are not significant (see figure 41). This suggests SFS

programs may be helping to attenuate maturation effects, but use rates comparable to YRRS students could imply more focus on marijuana use in SFS programming would be beneficial.

Figure 41: Percentage of 9th-12th grade Hispanic females who report marijuana use in the past 30 days

Reports of illicit drug use are generally low for both Hispanic males and females, and mimic use rates reported by YRRS students. There does appear to be some increase in illicit drug use for 10th graders, particularly related to huffing, or sniffing glue, and cocaine use (among males). However, none of these increases were statistically significant and the data must be interpreted cautiously given the smaller sample size and the extremely low overall rates of students reporting these behaviors.

Attitudes and Norms towards ATOD use (Hispanic students , grades 9-12)

When compared overall to YRRS Hispanic students, both Hispanic males and females participating in SFS programs generally report similar patterns to YRRS Hispanic Respondents with respect to thinking that parents would disapprove of them drinking alcohol. They are more like than YRRS respondents to indicate that is wrong for someone their age to drink.

Looking across grades, Hispanic females report similar rates of most of their friends drinking alcohol that always decline from pre to post test. Among Hispanic males the percent who report that most of their friends drink is generally lower than their YRRS counterparts but there is less consistency overall by grade(see figure 42). This may suggest that SFS programs are impacting peer group relationships related to alcohol differently by gender, with Hispanic females gaining immediate program impact and Hispanic males sustained impact over time.

Figure 42: Percent of 9th-12th grade Hispanic females who report most/all friends drink alcohol weekly

Hispanic males and females in 9th and 10th grades report higher rates of peer groups where most or all of their friends have used drugs such as marijuana and cocaine when compared to their YRRS counterparts (see figure 43 for males). By 11th and 12th grade, Hispanic males are less likely to report this than their YRRS counterparts and by 11th grade Hispanic females are also less likely than YRRS students to report a peer group where the majority has used drugs. The pattern is similar to that reported above for alcohol, suggesting Hispanic females experience immediate program impact and Hispanic males more sustained impact related to ATOD peer norms.

Figure 43: Percent of 9th-12th grade Hispanic males who report most/all friends have used drugs

Results for Native American Middle School Participants

Surveys were completed by 578 middle school Native American program participants. Slightly more of the respondents were female (51.2%) than male (48.8%) and the average age was 12.4 years old. Almost half (46.4%) of the participants were in the seventh grade. Similar to their Hispanic peers, the majority of Native American students (64.4%) lived in homes where a language other than English was spoken.

Table 37: Demographics for middle school Native American SFS participants at pre-test (N=578)

Demographic	N	% SFS Program Participants
Grade		
4th grade	16	2.8%
5th grade	70	12.1%
6th grade	111	19.2%
7th grade	268	46.4%
8th grade	93	16.1%
9th grade	20	3.5%
Biological Sex		
Male	281	48.8%
Female	295	51.2%
Language Other than English Spoken Most Often[a]		
Yes	366	64.4%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

There was only one statistically significant pre- to post-test finding among the substance use measures and it was for cigarettes, which had the same percentage of respondents reporting use at baseline and post-test. Favorable trends for alcohol and binge drinking and increases in chewing tobacco and marijuana use were reported. Across all categories of prescription drug use except cough medicine, decreases between baseline and post-test use were observed. The perception of the risk of harm increased, but findings indicate that scores on the intentions to smoke measure also increased. There was a slight, desired increase on the Parental Attitudes Toward Alcohol Use measure, although respondents' personal attitudes experienced a small decrease. Program effect sizes were too small to be significant. (See Tables 38, 39, and 40 below.)

Table 31: Past 30-day ATOD use[a] differences from pre-test to post-test for middle school Native American SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Cigarettes (n=528)	12.5 %	12.5%	0.026*
Chewing Tobacco (n=574)	4.7%	4.9%	1.000
Alcohol (n=530)	10.6%	8.3%	0.760
Marijuana (n=549)	13.2%	14.8%	0.003***
Binge Drinking (n=528)	6.4%	5.2%	1.000

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 32: Past 30-day prescription drug use, differences from pre-test to post-test for middle school Native American SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Any prescription medication not prescribed (n=570)	4.7%	4.3%	0.868
Any cough medication not prescribed (n=564)	7.9%	8.4%	0.903
Any prescription pain pills not prescribed (n=567)	4.2%	3.7%	0.700
Any Ritalin, Adderal, or Prozac not prescribed (n=565)	2.3%	1.4%	0.359
Any pres sleep aids or tranquilizers not prescribed (n=565)	3.2%	1.9%	0.248
Any other medications not prescribed (n=562)	6.3%	6.0%	0.892

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 33: Attitudes toward alcohol use [a] for middle school Native American SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=578)	3.80	3.83	-1.200	↑
Respondent Attitudes Toward Alcohol Use (n=575)	3.62	3.56	1.582	↑

[a] Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Results for Native American High School Participants

Only 103 Native American high school program participants completed the SFS survey. There were more male respondents (53.4%) than females (46.6%) and the average age of program participants was 15.6 years old. Most participants were in ninth grade (55.3%). Slightly more than half (54.4%) of participants came from homes where English was not the primary language.

Table 41: Demographics for high school Native American SFS program participants at pre-test (N=103)

Demographic	N	% SFS Program Participants
Grade		
Not in school	0	0.0%
8th grade	3	2.9%
9th grade	57	55.3%
10th grade	19	18.4%
11th grade	13	12.6%
12th grade	11	10.7%
Biological Sex		
Male	55	53.4%
Female	48	46.6%
Language Other than English Spoken Most Often[a]		54.4%
Yes	60	58.8%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

Favorable trends were observed for almost all substances, including decreased use between pre-test and post-test for cigarette use, chewing tobacco, alcohol, marijuana, binge drinking, cocaine, inhalants, methamphetamines, ecstasy, and most prescription medications. There were modest increases for Ritalin, Adderal or Prozac, along with sleeping aids and tranquilizers, but none of these findings were statistically significant. (See Tables 35 and 36 below.) The small sample size precludes generalizing these results to the overall Native American high school population in New Mexico, but the trends in decreased substance use are supported by corresponding reports of decreased peer use, more appropriate parental and respondent attitudes toward alcohol use, and decreased drinking and driving. Native American high school SFS students appear to experience some ameliorating effects of the prevention programming.

Table 42: Past 30-day ATOD use[a] differences from pre-test to post-test for high school Native American SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Cigarettes (n=102)	24.3	15.7	.064
Chewing Tobacco (n= 103)	7.8	5.8	.688
Alcohol (n=103)	33.0	28.2	.424
Marijuana (n=103)	36.9	35.0	.845
Binge Drinking (n=103)	21.4	18.4	.678

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 43: Past 30-day Prescription Drug Use, Differences from Pre-test to Post-test for High School Native American SFS Program Participants

Substance	% Pre-test	% Post-test	McNemar
Any prescription medication not prescribed (n=100)	12.6	8.0	.454
Any cough medication not prescribed (n=95)	18.0	14.3	.481
Any prescription pain pills not prescribed (n=95)	8.0	7.1	1.000
Any Ritalin, Adderal, or Prozac not prescribed (n=93)	2.0	2.1	1.000
Any prescription sleep aids or tranquilizers not prescribed (n=94)	2.0	5.2	.453
Any other medications not prescribed (n=95)	16.0	11.2	.332

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Discussion

As has been known in the research literature for some time now, the Hispanic/Latino and Native American youth in NM are at greater risk for adverse outcomes related to ATOD use than their non-Hispanic white counterparts. Many factors influence this result including environmental and societal factors such as community norms of ATOD use, access to ATOD, social capital, and alternative programming for youth, as well as individual factors such as socioeconomic status, educational attainment and achievement, parental monitoring, and individual resiliency in the face of discrimination and historical threats. OSAP targets many of their prevention efforts at the higher risk groups of students because of this and changes are being made in a positive direction among most substances. High school age youth may be somewhat more positively affected by these programs. However, it's important to keep mind the diversity in NM and uniqueness of NM minorities. Many of the programs used in the 12-17 funding stream are specifically designed for Native American or Hispanic youth to work with their cultural and historical stories. These programs often focus on building resiliency and pride in the rich heritage from which they come. These resiliency factors may have a more gradual effect on use than other strategies. It seems important that we (i.e., OSAP staff, local program

providers and local and state evaluators) take some time to look at prevention programming for those same youth prior to their entering the SFS programs. Prevention is by nature a continuous and ongoing process. It begins at birth when we immunize our children against deadly childhood diseases and continues as we try to inoculate them against the many dangers they face as they grow up of which alcohol, tobacco, and other drug use are only some. However, this must start early and continue throughout childhood, adolescence, and young adulthood. OSAP's approach to providing prevention programming from birth through young adulthood is commendable since for many of our highest risk youth, adolescence is often too late to benefit from the full effect.

Appendix A

New Mexico SPF SIG Community Questionnaire Results

Introduction

The first table that follows presents the results of a bivariate analysis stratified by sex, year, and group. But most of the tables that follow present the results of probit and GLM regression models. Also included in the probit models is a rescaled R-square term that was derived from the same model only using logistic regression since the probit regression does not provide a measure of variance accounted for in the results. There are two tables for each outcome: one without an interaction term and one with an interaction term included. These tables provide information on the associations of the sociodemographic variables with each of the outcomes and intervening variables along with the relationship of year and group to the outcome. These tables are provided to complement the graphs included in the text and provide additional information about the data.

Table 1: Reported prevalence of alcohol consumption and drinking and driving in SPF SIG and Comparison communities in 2008 and 2009, stratified by biological sex

High Risk Drinking Behavior	MALES				FEMALES			
	Comparison Communities		SPF SIG Communities		Comparison Communities		SPF SIG Communities	
	2008	2009	2008	2009	2008	2009	2008	2009
Rode in a car at least once in the past 30 days with someone who had been drinking	12.64	16.61	16.09	14.84	10.32	10.70	15.00	11.78**
Drank alcohol at least once in the past 30 days	46.71	49.91	60.85	43.24****	39.54	36.09	50.24	39.49****
Drank 5 or more drinks in one sitting at least once in the past 30 days	35.90	28.87	40.67	23.29****	22.78	14.01**	26.99	14.33****
Drove at least once in the past 30 days when they had perhaps too much to drink	8.55	5.73	9.43	7.64	3.91	3.78	6.11	3.62***
Drove at least once in the past 30 days after drinking 5 or more drinks	12.30	7.81	8.49	8.54	4.95	5.16	7.31	3.91***
Drove under the influence of alcohol only at least once in the past 12 months	13.22	26.86***	19.85	17.19	10.49	14.93	13.20	11.68

*p≤ .05, ** p≤.01, *** p ≤ .001, **** p ≤ .0001.

Table 2: Examining the effect of the group membership and year *of having ridden in a car with a driver who had been drinking* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,278)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.12**	0.05	–	0.19
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.09	-0.01	–	0.19
	Native American	0.11	-0.00	–	0.23
	Other	0.00	-0.19	–	0.19
Age					
	45 and over	*Referent*			
	18 to 20	0.41****	0.28	–	0.53
	21 to 24	0.55****	0.44	–	0.66
	25 to 34	0.48****	0.27	–	0.69
	35 to 44	0.10	-0.16	–	0.36
Student					
	No	*Referent*			
	Yes	0.10*	0.00	–	0.20
Length of time living in NM					
	Less than 1 year	*Referent*		–	
	1 to 5 years	-0.15	-0.33	–	0.03
	More than 5 years	-0.18*	-0.34	–	-0.03
Language other than English spoken at home					
	No	*Referent*			
	Yes	0.03	-0.05	–	0.12
Age at First Drink		-0.03****	-0.04	–	-0.02
Group				–	
	Comparison	*Referent*			
	SPF SIG	0.04	-0.05	–	0.13
Year					
	2008	*Referent*			
	2009	-0.04	-0.12	–	0.03
Max-Rescaled R-Squared based on Logistic Regression = .06					

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 3: Examining *the interaction effect of group membership and year of having ridden in a car with a driver who had been drinking* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,278)

Variables		Parameter Estimate	95% CI
Biological Sex			
	Female	*Referent*	
	Male	0.12*	0.05 – 0.19
Race/Ethnicity			
	Non-Hispanic White	*Referent*	
	Hispanic/Latino	0.09	-0.01 – 0.19
	Native American	0.12*	0.00 – 0.24
	Other	0.00	-0.19 – 0.19
Age			
	45 and over	*Referent*	
	18 to 20	0.40****	0.28 – 0.53
	21 to 24	0.54****	0.43 – 0.65
	25 to 34	0.48****	0.27 – 0.69
	35 to 44	0.10	-0.16 – 0.36
Student			
	No	*Referent*	
	Yes	0.10	-0.00 – 0.19
Length of time living in NM			
	Less than 1 year	*Referent*	
	1 to 5 years	-0.15	-0.33 – 0.04
	More than 5 years	-0.18*	-0.33 – -0.03
Language other than English spoken at home			
	No	*Referent*	
	Yes	0.03	-0.05 – 0.12
Age at First Drink		-0.03****	-0.04 – -0.02
Group			
	Comparison	*Referent*	
	SPF SIG	0.16	-0.02 – 0.34
Year			
	2008	*Referent*	
	2009	0.9	-0.10 – 0.28
Year X Group Interaction		-0.17	-0.38 – 0.04
Max-Rescaled R-Squared based on Logistic Regression = .06			

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 4: Examining the effect of the group membership and year *on past 30 day alcohol use* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,257)

Variables					
		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.17****	0.11	–	0.23
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	-0.15***	-0.22	–	-0.07
	Native American	-0.49****	-0.60	–	-0.40
	Other	-0.18*	-0.33	–	-0.03
Age					
	45 and over	*Referent*			
	18 to 20	-0.07	-0.19	–	0.04
	21 to 24	0.36****	0.26	–	0.47
	25 to 34	0.36***	0.16	–	0.55
	35 to 44	0.06	-0.15	–	0.27
Student					
	No	*Referent*			
	Yes	0.23****	0.14	–	0.31
Length of time living in NM					
	Less than 1 year	*Referent*		–	
	1 to 5 years	-0.10	-0.25	–	0.06
	More than 5 years	-0.22**	-0.35	–	-0.08
Language other than English spoken at home					
	No	*Referent*			
	Yes	-0.25****	-0.32	–	-0.18
Age at First Drink		-0.02****	-0.03	–	-0.01
Group				–	
	Comparison	*Referent*			
	SPF SIG	0.05	-0.02	–	0.12
Year					
	2008	*Referent*			
	2009	-0.14****	-0.20	–	-0.07
Max-Rescaled R-Squared based on Logistic Regression = .10					

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 5: Examining the interaction effect of group membership and year *on past 30 day alcohol use* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,257)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.17****	0.11	–	0.23
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	-0.15***	-0.23	–	-0.07
	Native American	-0.49****	-0.58	–	-0.39
	Other	-0.18*	-0.33	–	-0.03
Age					
	45 and over	*Referent*			
	18 to 20	-0.08	-0.19	–	0.04
	21 to 24	0.36****	0.26	–	0.46
	25 to 34	0.36***	0.16	–	0.55
	35 to 44	0.06	-0.15	–	0.27
Student					
	No	*Referent*			
	Yes	0.22****	0.14	–	0.31
Length of time living in NM					
	Less than 1 year	*Referent*			
	1 to 5 years	-0.09	-0.25	–	0.07
	More than 5 years	-0.21**	-0.35	–	-0.07
Language other than English spoken at home					
	No	*Referent*			
	Yes	-0.25****	-0.32	–	-0.18
Age at First Drink		-0.02****	-0.03	–	-0.01
Group					
	Comparison	*Referent*			
	SPF SIG	0.20**	0.06	–	0.34
Year					
	2008	*Referent*			
	2009	0.03	-0.12	–	0.18
Year X Group Interaction		-0.20*	-0.37	–	-0.04
Max-Rescaled R-Squared based on Logistic Regression = .10					

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 6: Examining the effect of the group membership and year *of 30 day 5 or more drinks* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=6,692)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.38****	0.31	–	0.45
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.28****	0.19	–	0.37
	Native American	0.25****	0.14	–	0.36
	Other	0.13	-0.05	–	0.30
Age					
	45 and over	*Referent*			
	18 to 20	0.36****	0.23	–	0.48
	21 to 24	0.51****	0.40	–	0.61
	25 to 34	0.58****	0.37	–	0.78
	35 to 44	0.16	-0.09	–	0.41
Student					
	No	*Referent*			
	Yes	0.33****	0.24	–	0.42
Length of time living in NM					
	Less than 1 year	*Referent*		–	
	1 to 5 years	0.01	-0.16	–	0.19
	More than 5 years	-0.11	-0.27	–	0.04
Language other than English spoken at home					
	No	*Referent*			
	Yes	-0.07	-0.15	–	0.01
Age at First Drink		-0.03****	-0.04	–	-0.02
Group				–	
	Comparison	*Referent*			
	SPF SIG	-0.03	-0.12	–	0.05
Year					
	2008	*Referent*			
	2009	-0.36****	-0.44	–	-0.29
Max-Rescaled R-Squared based on Logistic Regression = .14					

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 7: Examining *the interaction effect of group membership and year of 30 day 5 or more drinks* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=6,692)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.38****	0.31	–	0.45
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.28****	0.19	–	0.37
	Native American	0.25****	0.14	–	0.36
	Other	0.13	-0.05	–	0.30
Age					
	45 and over	*Referent*			
	18 to 20	0.35****	0.23	–	0.48
	21 to 24	0.51****	0.40	–	0.61
	25 to 34	0.58****	0.37	–	0.78
	35 to 44	0.16	-0.09	–	0.41
Student					
	No	*Referent*			
	Yes	0.33****	0.23	–	0.42
Length of time living in NM					
	Less than 1 year	*Referent*			
	1 to 5 years	0.02	-0.16	–	0.19
	More than 5 years	-0.11	-0.26	–	0.05
Language other than English spoken at home					
	No	*Referent*			
	Yes	-0.07	-0.15	–	0.01
Age at First Drink		-0.03****	-0.04	–	-0.02
Group					
	Comparison	*Referent*			
	SPF SIG	0.01	-0.17	–	0.19
Year					
	2008	*Referent*			
	2009	-0.32***	-0.51	–	-0.13
Year X Group Interaction		-0.05	-0.26	–	0.15
Max-Rescaled R-Squared based on Logistic Regression = .14					

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 8: Examining the effect of the group membership and year *of 30 day driving after drinking too much* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=6,839)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.28****	0.18	–	0.38
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.14*	0.00	–	0.27
	Native American	0.12	-0.04	–	0.28
	Other	0.04	-0.22	–	0.29
Age					
	45 and over	*Referent*			
	18 to 20	0.20*	0.04	–	0.37
	21 to 24	0.36****	0.22	–	0.50
	25 to 34	0.46***	0.20	–	0.72
	35 to 44	0.04	-0.32	–	0.41
Student					
	No	*Referent*			
	Yes	0.31****	0.19	–	0.43
Length of time living in NM					
	Less than 1 year	*Referent*		–	
	1 to 5 years	-0.08	-0.33	–	0.18
	More than 5 years	-0.05	-0.27	–	0.17
Language other than English spoken at home					
	No	*Referent*			
	Yes	0.03	-0.08	–	0.15
Age at First Drink		-0.04****	-0.05	–	-0.03
Group				–	
	Comparison	*Referent*			
	SPF SIG	0.03	-0.09	–	0.15
Year					
	2008	*Referent*			
	2009	-0.09	-0.20	–	0.03
Max-Rescaled R-Squared based on Logistic Regression = .08					

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 9: Examining *the interaction effect of group membership and year of 30 day driving after drinking too much* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=6,839)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.28****	0.18	–	0.38
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.14*	0.00	–	0.27
	Native American	0.12	-0.05	–	0.28
	Other	0.04	-0.22	–	0.29
Age					
	45 and over	*Referent*			
	18 to 20	0.20*	0.04	–	0.37
	21 to 24	0.36****	0.22	–	0.50
	25 to 34	0.46***	0.20	–	0.72
	35 to 44	0.04	-0.32	–	0.41
Student					
	No	*Referent*			
	Yes	0.31****	0.19	–	0.44
Length of time living in NM					
	Less than 1 year	*Referent*			
	1 to 5 years	-0.08	-0.33	–	0.18
	More than 5 years	-0.05	-0.27	–	0.17
Language other than English spoken at home					
	No	*Referent*			
	Yes	0.03	-0.08	–	0.15
Age at First Drink		-0.04****	-0.05	–	-0.03
Group					
	Comparison	*Referent*			
	SPF SIG	0.01	-0.26	–	0.28
Year					
	2008	*Referent*			
	2009	-0.11	-0.39	–	0.17
Year X Group Interaction		0.03	0.28	–	0.33
Max-Rescaled R-Squared based on Logistic Regression = .08					

*p ≤ .05, **p ≤ .01, ***p ≤ .001 , ****p ≤ .0001.

Table 10: Examining the effect of the group membership and year *of 30 day driving after 5 or more drinks* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,543)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.31****	0.21	–	0.41
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.20**	0.07	–	0.34
	Native American	0.29***	0.13	–	0.45
	Other	0.23	-0.01	–	0.48
Age					
	45 and over	*Referent*			
	18 to 20	0.31***	0.15	–	0.47
	21 to 24	0.39****	0.24	–	0.53
	25 to 34	0.44**	0.18	–	0.71
	35 to 44	0.02	-0.35	–	0.39
Student					
	No	*Referent*			
	Yes	0.19**	0.06	–	0.31
Length of time living in NM					
	Less than 1 year	*Referent*		–	
	1 to 5 years	-0.01	-0.26	–	0.25
	More than 5 years	-0.02	-0.24	–	0.20
Language other than English spoken at home					
	No	*Referent*			
	Yes	0.05	-0.06	–	0.16
Age at First Drink		-0.05****	-0.06	–	-0.04
Group				–	
	Comparison	*Referent*			
	SPF SIG	-0.06	-0.18	–	0.06
Year					
	2008	*Referent*			
	2009	0.12*	0.01	–	0.24
Max-Rescaled R-Squared based on Logistic Regression = .09					

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 11: Examining *the interaction effect of group membership and year of 30 day driving after 5 or more drinks* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,543)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.31****	0.21	−	0.41
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.20**	0.07	−	0.34
	Native American	0.29***	0.13	−	0.45
	Other	0.23	-0.01	−	0.48
Age					
	45 and over	*Referent*			
	18 to 20	0.30***	0.14	−	0.47
	21 to 24	0.38****	0.24	−	0.53
	25 to 34	0.44**	0.18	−	0.71
	35 to 44	0.02	-0.35	−	0.39
Student					
	No	*Referent*			
	Yes	0.18**	0.06	−	0.31
Length of time living in NM					
	Less than 1 year	*Referent*			
	1 to 5 years	-0.01	-0.26	−	0.25
	More than 5 years	-0.01	-0.23	−	0.21
Language other than English spoken at home					
	No	*Referent*			
	Yes	0.05	-0.06	−	0.16
Age at First Drink		-0.05****	-0.06	−	-0.04
Group					
	Comparison	*Referent*			
	SPF SIG	0.04	-0.22	−	0.31
Year					
	2008	*Referent*			
	2009	0.23	-0.04	−	0.50
Year X Group Interaction		-0.13	-0.43	−	0.17
Max-Rescaled R-Squared based on Logistic Regression = .09					

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 12: Examining the effect of the group membership and year *of 12mos driving under the influence of alcohol* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,559)

Variables					
		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.23****	0.16	–	0.30
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.08	-0.01	–	0.18
	Native American	0.10	-0.02	–	0.21
	Other	0.09	-0.08	–	0.26
Age					
	45 and over	*Referent*			
	18 to 20	0.23***	0.11	–	0.36
	21 to 24	0.36****	0.25	–	0.46
	25 to 34	0.39***	0.19	–	0.60
	35 to 44	0.02	-0.24	–	0.28
Student					
	No	*Referent*			
	Yes	0.19****	0.10	–	0.28
Length of time living in NM					
	Less than 1 year	*Referent*			
	1 to 5 years	-0.18*	-0.35	–	-0.00
	More than 5 years	-0.26***	-0.41	–	-0.11
Language other than English spoken at home					
	No	*Referent*			
	Yes	-0.03	-0.11	–	0.05
Age at First Drink		-0.04****	-0.05	–	-0.03
Group				–	
	Comparison	*Referent*			
	SPF SIG	-0.17****	-0.25	–	-0.09
Year					
	2008	*Referent*			
	2009	0.06	-0.02	–	0.14
Max-Rescaled R-Squared based on Logistic Regression = .07					

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 13: Examining *the interaction effect of group membership and year of 12mos driving under the influence of alcohol* controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,559)

Variables		Parameter Estimate	95% CI		
Biological Sex					
	Female	*Referent*			
	Male	0.23****	0.16	–	0.30
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.08	-0.01	–	0.17
	Native American	0.11	-0.00	–	0.22
	Other	0.09	-0.09	–	0.26
Age					
	45 and over	*Referent*			
	18 to 20	0.23***	0.10	–	0.35
	21 to 24	0.35****	0.25	–	0.46
	25 to 34	0.39***	0.19	–	0.60
	35 to 44	0.03	-0.23	–	0.29
Student					
	No	*Referent*			
	Yes	0.18***	0.09	–	0.27
Length of time living in NM					
	Less than 1 year	*Referent*			
	1 to 5 years	-0.17	-0.34	–	0.01
	More than 5 years	-0.25***	-0.40	–	-0.10
Language other than English spoken at home					
	No	*Referent*			
	Yes	-0.03	-0.11	–	0.05
Age at First Drink		-0.04****	-0.05	–	-0.03
Group					
	Comparison	*Referent*			
	SPF SIG	0.11	-0.07	–	0.29
Year					
	2008	*Referent*			
	2009	0.35***	0.17	–	0.53
Year X Group Interaction		-0.36***	-0.56	–	-0.16
Max-Rescaled R-Squared based on Logistic Regression = .07					

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 14: Examining the effect of the Group Membership and Year on Attitudes towards Underage Drinking and Over Consumption controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,324) WITHOUT INTERACTION TERM

Variables					
		Parameter Estimate	95% CI		
Biological Sex					
	Female	Referent			
	Male	.09****	0 .05	–	0.13
Race/Ethnicity					
	Non-Hispanic White	Referent			
	Hispanic/Latino	.12****	0 .07	–	0.17
	Native American	-0.05	-0.11	–	0.01
	Other	.094	-0.00	–	0.19
Age					
	45 and over	Referent			
	18 to 20	-0.06	-0.01	–	0.01
	21 to 24	-0.04	-0.10	–	0.02
	25 to 34	-0.10	-0.22	–	0.02
	35 to 44	-0.06	-0.19	–	0.07
Student					
	No	Referent			
	Yes	.004	-0.05	–	0.06
Length of time living in NM					
	Less than 1 year	Referent			
	1 to 5 years	-0.05	-0.15	–	0.05
	More than 5 years	-0.06	-0.15	–	0.03
Language other than English spoken at home					
	No	Referent			
	Yes	0.02	-0.02	–	0.07
Age at First Drink		0.01****	0.00	_	0.01
Group					
	Comparison	Referent			
	SPF SIG	0.10****	0.05	–	0.14
Year					
	2008	Referent			
	2009	0.12****	0.08	–	0.16
R-Square: .0215, p<.0001					

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 15: Examining the effect of the Group Membership and Year on Attitudes towards Underage Drinking and Over Consumption controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,324) WITH INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	Referent		
Male	0.09****	0.05 –	0.13
Race/Ethnicity			
Non-Hispanic White	Referent		
Hispanic/Latino	0.12****	0.07 –	0.17
Native American	-0.06	-0.11 –	0.00
Other	0.10*	0.00 –	0.19
Age			
45 and over	Referent		
18 to 20	-0.06	-0.13 –	0.01
21 to 24	-0.04	-0.10 –	0.02
25 to 34	-0.10	-0.22 –	0.02
35 to 44	-0.06	-0.19 –	0.07
Student			
No	Referent		
Yes	0.010	-0.04 –	0.06
Length of time living in NM			
Less than 1 year	Referent		
1 to 5 years	-0.06	-0.15 –	0.04
More than 5 years	-0.06	-0.15 –	0.03
Language other than English spoken at home			
No	Referent		
Yes	0.02	-0.02 –	0.07
Age at First Drink	0.01****	0.00 –	0.01
Group			
Comparison	Referent		
SPF SIG	-0.06	-0.15 –	0.03
Year			
2008	Referent		
2009	-0.06	-0.15 –	0.03
Biological Sex			
Year X Group Interaction	0.21****	0.11 –	0.32
R-square=.0237, p<.0001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 16: Examining the effect of the Group Membership and Year on Perception of Risk associated with Drinking and Driving controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,280) WITHOUT INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	*Referent*		
Male	0.07****	0.03 –	0.11
Race/Ethnicity			
Non-Hispanic White	*Referent*		
Hispanic/Latino	0.17****	0.12 –	0.22
Native American	0.14****	0.09 –	0.20
Other	0.12**	0.03 –	0.21
Age			
45 and over	*Referent*		
18 to 20	-0.12***	-0.19 –	-0.05
21 to 24	-0.06	-0.12 –	0.01
25 to 34	-0.13*	-0.24 –	-0.01
35 to 44	-0.12	-0.25 –	0.01
Student			
No	*Referent*		
Yes	0.05*	0.00 –	0.11
Length of time living in NM			
Less than 1 year	*Referent*		
1 to 5 years	-0.03	-0.12 –	0.07
More than 5 years	-0.02	-0.11 –	0.06
Language other than English spoken at home			
No	*Referent*		
Yes	0.02	-0.03 –	0.06
Age at First Drink	0.004*	0.00 –	0.01
Group			
Comparison	*Referent*		
SPF SIG	0.13****	0.08 –	0.17
Year			
2008	*Referent*		
2009	0.01	-0.03 –	0.05
R-square=0.0171, p<.0001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 17: Examining the effect of the Group Membership and Year on Perception of Risk associated with Drinking and Driving controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,280) WITH INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	*Referent*		
Male	0.07****	0.04 –	0.11
Race/Ethnicity			
Non-Hispanic White	*Referent*		
Hispanic/Latino	0.17****	0.12 –	0.22
Native American	0.14****	0.08 –	0.20
Other	0.12**	0.03 –	0.21
Age			
45 and over	*Referent*		
18 to 20	-0.12***	-0.19 –	-0.05
21 to 24	-0.06	-0.12 –	0.00
25 to 34	-0.13*	-0.24 –	-0.01
35 to 44	-0.13	-0.26 –	0.01
Student			
No	*Referent*		
Yes	0.06*	0.01 –	0.11
Length of time living in NM			
Less than 1 year	*Referent*		
1 to 5 years	-0.03	-0.13 –	0.07
More than 5 years	-0.02	-0.11 –	0.06
Language other than English spoken at home			
No	*Referent*		
Yes	0.017	-0.03 _	0.06
Age at First Drink	0.004*	0.00 –	0.01
Group			
Comparison	*Referent*		
SPF SIG	0.03	-0.05 –	0.13
Year			
2008	*Referent*		
2009	-0.09*	-0.18 –	-0.00
Biological Sex			
Year X Group Interaction	0.12*	0.02 –	0.22
R-square =0.0178,p<.0001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 18: Examining the effect of the Group Membership and Year on Support for local ATOD Prevention Efforts controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,606) WITHOUT INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	*Referent*		
Male	-0.08****	-0.11	− -0.05
Race/Ethnicity			
Non-Hispanic White	*Referent*		
Hispanic/Latino	0.02	-0.02	− 0.06
Native American	-0.01	-0.06	− 0.04
Other	-0.09*	-0.17	− -0.01
Age			
45 and over	*Referent*		
18 to 20	-0.19****	-0.25	− -0.13
21 to 24	-0.11****	-0.16	− -0.06
25 to 34	-0.01	-0.10	− 0.09
35 to 44	0.00	-0.10	− 0.11
Student			
No	*Referent*		
Yes	-0.10****	-0.15	− -0.06
Length of time living in NM			
Less than 1 year	*Referent*		
1 to 5 years	0.07	-0.01	− 0.15
More than 5 years	0.09**	0.02	− 0.16
Language other than English spoken at home			
No	*Referent*		
Yes	0.05**	0.01	− 0.08
Age at First Drink	0.01****	0.00	− 0.01
Group			
Comparison	*Referent*		
SPF SIG	0.06***	0.03	− 0.10
Year			
2008	*Referent*		
2009	-0.03*	-0.07	− -0.00
R-square=.0323, p<.0001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 19: Examining the effect of the Group Membership and Year on Support for local ATOD Prevention Efforts controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N=7,606) WITH INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	*Referent*		
Male	-0.08****	-0.11	-0.05
Race/Ethnicity			
Non-Hispanic White	*Referent*		
Hispanic/Latino	0.02	-0.02	0.06
Native American	-0.02	-0.06	0.03
Other	-0.09*	-0.16	-0.01
Age			
45 and over	*Referent*		
18 to 20	-0.19****	-0.24	-0.13
21 to 24	-0.11****	-0.16	-0.06
25 to 34	-0.01	-0.10	0.09
35 to 44	0.00	-0.11	0.11
Student			
No	*Referent*		
Yes	-0.10****	-0.15	-0.06
Length of time living in NM			
Less than 1 year	*Referent*		
1 to 5 years	0.07	-0.01	0.15
More than 5 years	0.09**	0.02	0.16
Language other than English spoken at home			
No	*Referent*		
Yes	0.05**	0.02	0.08
Age at First Drink	0.01****	0.00	0.01
Group			
Comparison	*Referent*		
SPF SIG	0.01	-0.06	0.08
Year			
2008	*Referent*		
2009	-0.09*	-0.17	-0.02
Biological Sex			
Year X Group Interaction	0.07	-0.01	0.16
R-square =0.0327, p<.001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 20: Examining the effect of the Group Membership and Year on Awareness of Local Prevention Activities controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N= 7,658) WITHOUT INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	*Referent*		
Male	0.06****	0.03 –	0.08
Race/Ethnicity			
Non-Hispanic White	*Referent*		
Hispanic/Latino	-0.00	-0.03 –	0.03
Native American	-0.01	-0.05 –	0.03
Other	-0.03	-0.10 –	0.03
Age			
45 and over	*Referent*		
18 to 20	0.03	-0.02 –	0.08
21 to 24	0.04	-0.03 –	0.06
25 to 34	0.04	-0.04 –	0.12
35 to 44	-0.04	-0.14 –	0.05
Student			
No	*Referent*		
Yes	0.01	-0.03 –	0.04
Length of time living in NM			
Less than 1 year	*Referent*		
1 to 5 years	-0.02	-0.08 –	0.05
More than 5 years	0.035	-.02 –	0.09
Language other than English spoken at home			
No	*Referent*		
Yes	0.03*	0.00 –	0.06
Age at First Drink	0.00**	0.00 –	0.01
Group			
Comparison	*Referent*		
SPF SIG	0.11****	0.08 –	0.15
Year			
2008	*Referent*		
2009	-0.03	-0.05 –	0.00
R-square=0.01265, p<.0001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 21: Examining the effect of the Group Membership and Year on Awareness of Local Prevention Activities controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N= 7,658) WITH INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	*Referent*		
Male	0.06****	0.03 –	0.08
Race/Ethnicity			
Non-Hispanic White	*Referent*		
Hispanic/Latino	-0.00	-0.03 –	0.03
Native American	-0.01	-0.05 –	0.04
Other	-0.03	-0.10 –	0.03
Age			
45 and over	*Referent*		
18 to 20	0.03	-0.02 –	0.08
21 to 24	0.01	-0.03 –	0.06
25 to 34	0.04	-0.04 –	0.12
35 to 44	-0.04	-0.13 –	0.05
Student			
No	*Referent*		
Yes	0.00	-0.03 –	0.04
Length of time living in NM			
Less than 1 year	*Referent*		
1 to 5 years	-0.02	-0.08 –	0.05
More than 5 years	0.04	-0.02 –	0.09
Language other than English spoken at home			
No	*Referent*		
Yes	0.03*	0.00 –	0.06
Age at First Drink	0.00**	0.00 –	0.01
Group			
Comparison	*Referent*		
SPF SIG	0.13****	0.07 –	0.19
Year			
2008	*Referent*		
2009	-0.01	-0.08 –	0.05
Biological Sex			
Year X Group Interaction	-0.02	-0.09 –	0.05
R-square =0.0126, p<.0001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 22: Examining the effect of the Group Membership and Year on Drinking Norms and Drinking and Driving Norms controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N= 7,650) WITHOUT INTERACTION TERM

Variables					
Biological Sex		Parameter Estimate	95% CI		
	Female	*Referent*			
	Male	-0.33****	-0.37	–	-0.29
Race/Ethnicity					
	Non-Hispanic White	*Referent*			
	Hispanic/Latino	0.07**	0.02	–	0.13
	Native American	0.17****	0.11	–	0.23
	Other	0.03	-0.01	–	0.14
Age					
	45 and over	*Referent*			
	18 to 20	-0.08*	-0.15	–	-0.00
	21 to 24	-0.18****	-0.24	–	-0.11
	25 to 34	-0.17**	-0.30	–	-0.04
	35 to 44	-0.09	-0.23	–	0.05
Student					
	No	*Referent*			
	Yes	-0.01	-0.06	–	0.05
Length of time living in NM					
	Less than 1 year	*Referent*			
	1 to 5 years	0.09	-0.02	–	0.19
	More than 5 years	0.22****	0.13	–	0.31
Language other than English spoken at home					
	No	*Referent*			
	Yes	0.08***	0.04	–	0.13
Age at First Drink		0.01****	0.00	–	0.01
Group					
	Comparison	*Referent*			
	SPF SIG	0.06*	0.01	–	0.11
Year					
	2008	*Referent*			
	2009	-0.11****	-0.15	–	-0.06
R-square=0.0633, p<.0001					

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Table 23: Examining the effect of the Group Membership and Year on Drinking Norms and Drinking and Driving Norms controlling for the effect of biological sex, race/ethnicity, age, time spent living in NM, language spoken at home, and age at first drink. (N= 7,650) WITH INTERACTION TERM

Variables			
Biological Sex	Parameter Estimate	95% CI	
Female	*Referent*		
Male	-0.33****	-0.37	-0.29
Race/Ethnicity			
Non-Hispanic White	*Referent*		
Hispanic/Latino	0.08**	0.02	0.13
Native American	0.16****	0.10	0.23
Other	0.04	-0.07	0.14
Age			
45 and over	*Referent*		
18 to 20	-0.07	-0.15	0.00
21 to 24	-0.18****	-0.24	-0.11
25 to 34	-0.17***	-0.30	-0.05
35 to 44	-0.10	-0.24	0.05
Student			
No	*Referent*		
Yes	-0.00	-0.06	0.05
Length of time living in NM			
Less than 1 year	*Referent*		
1 to 5 years	0.08	-0.02	0.19
More than 5 years	0.22****	0.13	0.31
Language other than English spoken at home			
No	*Referent*		
Yes	0.08***	0.04	0.13
Age at First Drink	0.01****	0.00	0.01
Group			
Comparison	*Referent*		
SPF SIG	-0.02	-0.16	0.07
Year			
2008	*Referent*		
2009	-0.19****	-0.29	-0.10
Biological Sex			
Year X Group Interaction	0.11	-0.00	0.22
R-square =0.0637, p<.0001			

*p ≤ .05, **p ≤ .01, ***p ≤ .001, ****p ≤ .0001.

Appendix B

New Mexico Family Assessment Scale

Table 1: Family Assessment Scale findings (N=215)

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Home Environment (n=212)	0-30		22.25	22.57	-1.169	0.244	↑ Is better	0.667
Social Support (n=211)	0-9		7.08	7.45	-3.442***	0.001	↑ Is better	0.729
Social Services Utilization (n=211)	0-12		9.15	9.55	-2.759**	0.006	↑ Is better	0.400
Parenting Skills (n=206)	0-30		23.23	24.94	-4.991***	0.000	↑ Is better	0.792
Family Interaction (n=212)	0-36		26.68	27.38	-1.451	0.148	↑ Is better	0.891
Child Well Being (n=194)	0-18		15.12	15.68	-2.743**	0.007	↑ Is better	0.559
Parent Child Dysfunctional Interaction (n=200)	12-60		19.68	18.98	1.136	0.257	↓ Is better	0.890
ATOD Perception of Risk (n=195)	0-12		10.70	10.74	-0.201	0.841	↑ Is better	0.400

*p≤.05, **p≤.01, ***p≤.001.

Table 2: ATOD Use at baseline and post-test for all participants and among participants reporting use at baseline

Substance	All Participants		Participants with Any ATOD Use at Baseline	
	Baseline	Post-Test	Baseline	Post-test
Any Alcohol Use	13.7% (n=190)	11.4% (n=185)	92.9% (n=28)	48.1%** (n=27)
Alcohol to Intoxication	4.7% (n=193)	4.3% (n=186)	28.6% (n=28)	21.4% (n=28)
Other Illegal Drugs	1.6% (n=193)	1.1% (n=186)	10.7% (n=28)	3.6% (n=28)
Marijuana	1.6% (n=193)	0.5% (n=184)	10.7% (n=28)	3.6% (n=28)
Cigarettes	16.8% (n=202)	14.5% (n=200)	39.3% (n=28)	32.1% (n=28)

*p≤.05, **p≤.01, ***p≤.001.

Table 3: Examining the effect of NMFAS pre-test scores on post-test scores (n=158)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Home Environment	22.70	22.51	0.400	0.003	↑ Is better
Social Support	7.20	7.37	5.200*	0.032	↑ Is better
Social Services Utilization	9.13	9.46	4.426*	0.027	↑ Is better
Parenting Skills	23.65	24.81	10.731***	0.064	↑ Is better
Family Interaction	26.41	26.90	0.873	0.006	↑ Is better
Child Well Being	15.32	15.76	3.734	0.023	↑ Is better
Parent Child Dysfunctional Relationship	20.42	19.51	1.853	0.012	↓ Is better
ATOD Perception of Risk	10.58	10.93	3.147	0.020	↑ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Appendix C
New Mexico PreK-6 Program Findings

Table 1: PreK to 6th grade program findings: Parent Domain

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Family Interaction (N=358)	0-52		37.00	38.72	-4.984	0.000***	↑ Is better	0.779
Parental Attitudes (N=358)	0-40		28.24	30.73	-7.148	0.000***	↑ Is better	0.864
Parent-Child Dysfunctional Interaction (N=337)	10-50		17.93	16.71	3.148	0.002**	↓ Is better	0.853

*p≤.05, **p≤.01, ***p≤.001.

Table 2: PreK through 6th grade program: Findings for Parent Domain, female program participant

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Family Interaction (N=132)	0-52		37.55	38.46	-1.624	0.107	↑ Is better	0.802
Parental Attitudes (N=131)	0-40		28.74	30.17	-2.439	0.016*	↑ Is better	0.877
Parent-Child Dysfunctional Interaction (N=124)	10-50		17.20	15.90	1.819	0.071	↓ Is better	0.854

*p≤.05, **p≤.01, ***p≤.001.

Table 3: PreK through 6th grade program: Findings for Parent Domain, male program participant

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
Family Interaction (n=157)	0-52		36.64	38.91	-4.226	0.000***	↑ Is better	0.774
Parental Attitudes (n=157)	0-40		27.83	31.00	-6.030	0.000***	↑ Is better	0.862
Parent-Child Dysfunctional Interaction (n=150)	10-50		18.31	16.87	2.663	0.009**	↓ Is better	0.852

*p≤.05, **p≤.01, ***p≤.001.

Appendix D
New Mexico K-6 Program Findings

Table 1: K-6th grade t-test results comparing pre-test to post-test for Youth Survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	**Max**						
SCHOOL								
School Performance (Grade) (n=862)	0-6		4.38	4.32	1.246	0.213	↑ Is better	NA
School Attendance (n=920)	1-4		2.94	2.84	3.770***	0.000	↑ Is better	NA
Disruptive School Behaviors (Youth) (n=954)	0-12		1.55	1.49	0.825	0.409	↓ Is better	0.540
School Protective Factors (Youth) (n=959)	11-44		38.02	38.06	-0.274	0.784	↑ Is better	0.772
FAMILY								
Parent Communication (Youth) (n=948)	0-12		6.67	6.49	1.952	0.051	↑ Is better	0.281
Family Bonding (Youth) (n=952)	0-5		4.54	4.60	-2.187*	0.029	↑ Is better	0.367

*p≤.05, **p≤.01, ***p≤.001.

Table 2: K-6th grade Youth Survey ATOD t-test results comparing pre-test to post-test

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
30-Day Tobacco Use (n=929)	0-2		0.054	0.055	-0.115	0.908	↓ Is better	0.291
30-Day Alcohol Use (n=916)	0-1		0.052	0.046	0.762	0.446	↓ Is better	NA
30-Day Marijuana Use (n=910)	0-1		0.023	0.029	-0.962	0.336	↓ Is better	NA
30-Day Illicit Drug Use (Marijuana & Inhalant) (n=917)	0-2		0.091	0.072	1.645	0.100	↓ Is better	0.279
Attitude toward Use (How wrong) (n=930)	9-36		34.57	34.71	-0.999	0.318	↑ Is better	0.862
Perceived Availability (How easy to get) (n=913)	3-12		3.89	4.01	-1.684	0.093	↓ Is better	0.777
Perceived Harm (n=792)	0-9		7.14	7.62	-4.912***	0.000	↑ Is better	0.862

*p≤.05, **p≤.01, ***p≤.001.

Table 3: Using GLM to assess the affect of time on K-6th grade youth post-test measures controlling for pre-test estimates (n=685)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
SCHOOL					
School Performance (Grade)	4.44	4.37	2.411	0.004	↑ Is better
School Attendance	2.97	2.89	6.235*	0.009	↑ Is better
Disruptive School Behaviors	1.49	1.45	0.285	0.000	↓ Is better
School Protective Factors	38.08	38.12	0.041	0.000	↑ Is better
FAMILY					
Parent Communication	6.66	6.48	2.761	0.004	↑ Is better
Family Bonding	4.54	4.63	9.409	0.014	↑ Is better
YOUTH ATOD					
30-Day Tobacco Use	0.044	0.045	0.021	0.000	↓ Is better
30-Day Alcohol Use	0.050	0.044	0.363	0.001	↓ Is better
30-Day Marijuana Use	0.016	0.020	0.021	0.001	↓ Is better
30-Day Illicit Drug Use (Marijuana & Inhalant)	0.085	0.069	1.392	0.002	↓ Is better
Attitude toward Use (How wrong)	34.80	34.97	2.280	0.003	↑ Is better
Perceived Availability (How easy to get)	3.95	4.09	3.624	0.005	↓ Is better
Perceived Harm	7.19	7.75	31.714***	0.044	↑ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 4: K-6th grade t-test results comparing pre-test to post-test for male Youth Survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
SCHOOL								
School Performance (Grade) (n=400)	0-6		4.11	4.05	0.944	0.346	↑ Is better	NA
School Attendance (n=427)	1-4		2.95	2.85	2.582**	0.010	↑ Is better	NA
Disruptive School Behaviors (n=443)	0-12		2.10	1.98	1.054	0.292	↓ Is better	0.584
School Protective Factors (n=445)	11-44		36.71	37.06	-1.373	0.170	↑ Is better	0.748
FAMILY								
Parent Communication (n=441)	0-12		6.30	6.14	1.095	0.274	↑ Is better	0.208
Family Bonding (n=441)	0-5		4.48	4.52	-1.098	0.273	↑ Is better	0.345
YOUTH ATOD								
30-Day Tobacco Use (n=427)	0-2		0.073	0.09	-0.980	0.328	↓ Is better	0.366
30-Day Alcohol Use (n=419)	0-1		0.079	0.60	1.373	0.170	↓ Is better	NA
30-Day Marijuana Use (n=417)	0-1		0.036	0.04	-0.258	0.797	↓ Is better	NA
30-Day Illicit Drug Use (Marijuana & Inhalant) (n=420)	0-2		0.12	0.09	1.416	0.158	↓ Is better	0.376
Attitude Toward Use (How wrong) (n=427)	9-36		34.05	34.39	-1.479	0.140	↑ Is better	0.860
Perceived Availability (How easy to get) (n=420)	3-12		4.21	4.38	-1.551	0.122	↓ Is better	0.781
Perceived Harm (n=367)	0-9		6.78	7.51	-4.662***	0.000	↑ Is better	0.813

*p≤.05, **p≤.01, ***p≤.001.

Table 5: Examining the effect of male youth pre-test scores on post-test scores (n=312)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
SCHOOL					
School Performance (Grade)	4.16	4.13	0.172	0.001	↑ Is better
School Attendance	2.97	2.88	3.811	0.012	↑ Is better
Disruptive School Behaviors	1.94	1.79	1.273	0.004	↓ Is better
School Protective Factors	36.92	37.45	3.024	0.010	↑ Is better
FAMILY					
Parent Communication	6.36	6.23	0.559	0.002	↑ Is better
Family Bonding	4.47	4.59	6.877**	0.022	↑ Is better
YOUTH ATOD					
30-Day Tobacco Use	0.055	0.077	1.487	0.005	↓ Is better
30-Day Alcohol Use	0.074	0.058	1.000	0.003	↓ Is better
30-Day Marijuana Use	0.026	0.029	0.091	0.000	↓ Is better
30-Day Illicit Drug Use (Marijuana & Inhalant)	0.112	0.083	1.531	0.005	↓ Is better
Attitude Toward Use (How wrong)	34.35	34.76	4.552*	0.014	↑ Is better
Perceived Availability (How easy to get)	4.26	4.41	1.476	0.005	↓ Is better
Perceived Harm	6.90	7.70	26.229***	0.078	↑ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 6: K-6th grade t-test results comparing pre-test to post-test for female Youth Survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
SCHOOL								
School Performance (Grade) (n=457)	0-6		4.61	4.56	0.780	0.436	↑ Is better	NA
School Attendance (n=487)	1-4		2.93	2.84	2.488*	0.013	↑ Is better	NA
Disruptive School Behaviors (n=505)	0-12		1.04	1.05	-0.092	0.927	↓ Is better	0.387
School Protective Factors (n=507)	11-44		39.14	38.93	1.128	0.260	↑ Is better	0.770
FAMILY								
Parent Communication (n=501)	0-12		7.00	6.78	1.779	0.076	↑ Is better	0.322
Family Bonding (n=506)	0-5		4.60	4.67	-2.024*	0.044	↑ Is better	0.385
YOUTH ATOD								
30-Day Tobacco Use (n=495)	0-2		0.04	0.03	1.225	0.221	↓ Is better	0.546
30-Day Alcohol Use (n=491)	0-1		0.03	0.04	-0.378	0.706	↓ Is better	NA
30-Day Marijuana Use (n=486)	0-1		0.01	0.02	-1.510	0.132	↓ Is better	NA
30-Day Illicit Drug Use (Marijuana & Inhalant) (n=490)	0-2		0.07	0.06	0.729	0.466	↓ Is better	0.090
Attitude Toward Use (How wrong) (n=496)	9-36		35.01	34.97	0.234	0.815	↑ Is better	0.856
Perceived Availability (How easy to get) (n=486)	3-12		3.64	3.70	-0.807	0.420	↓ Is better	0.759
Perceived Harm (n=419)	0-9		7.45	7.74	-2.384*	0.018	↑ Is better	0.903

*p≤.05, **p≤.01, ***p≤.001.

Table 7: Examining the effect of female youth pre-test scores on post-test scores (n=371)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
SCHOOL					
School Performance (Grade)	4.67	4.56	3.113	0.008	↑ Is better
School Attendance	2.97	2.91	2.116	0.006	↑ Is better
Disruptive School Behaviors	1.10	1.15	0.195	0.001	↓ Is better
School Protective Factors	39.04	38.67	3.037	0.008	↑ Is better
FAMILY					
Parent Communication	6.93	6.68	2.828	0.008	↑ Is better
Family Bonding	4.60	4.67	2.904	0.008	↑ Is better
YOUTH ATOD					
30-Day Tobacco Use	0.04	0.02	2.582	0.007	↓ Is better
30-Day Alcohol Use	0.03	0.03	0.052	0.000	↓ Is better
30-Day Marijuana Use	0.01	0.01	0.666	0.002	↓ Is better
30-Day Illicit Drug Use (Marijuana & Inhalant)	0.06	0.06	0.117	0.000	↓ Is better
Attitude Toward Use (How wrong)	35.20	35.15	0.164	0.000	↑ Is better
Perceived Availability (How easy to get)	3.69	3.84	2.217	0.006	↓ Is better
Perceived Harm	7.44	7.80	7.836**	0.021	↑ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 8: K-6th Parent Survey t-test results comparing pre-test to post-test estimates

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS[7]: Conduct Problems – Parent Rating (n=441)	0-24		3.19	3.33	-0.859	0.391	🡻 Is better	0.811
CRS: Learning Problems – Parent Rating (n=439)	0-12		2.12	2.34	-2.135*	0.033	🡻 Is better	0.760
CRS: Psychosomatic – Parent Rating (n=440)	0-12		0.62	0.76	-2.093*	0.037	🡻 Is better	0.628
CRS: Impulsive-Hyperactive – Parent Rating (435)	0-12		3.26	3.40	-1.204	0.229	🡻 Is better	0.761
CRS: Anxiety – Parent Rating (n=440)	0-12		2.30	2.25	0.581	0.561	🡻 Is better	0.667
CRS: Hyperactivity Index – Parent Rating (n=441)	0-30		5.58	5.94	-1.690	0.092	🡻 Is better	0.852

*p≤.05, **p≤.01, ***p≤.001.

[7] CRS = Conner's Rating Scales

Table 9: Examining the effect of time on parent responses at post-test controlling for pre-test estimates (N=433)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[8]: Conduct Problems	3.17	3.34	1.032	0.002	🡻 Is better
CRS: Learning Problems	2.12	2.31	3.691	0.008	🡻 Is better
CRS: Psychosomatic	0.63	.76	4.116*	0.009	🡻 Is better
CRS: Impulsive-Hyperactive	3.25	3.40	1.495	0.003	🡻 Is better
CRS: Anxiety	2.32	2.26	0.555	0.001	🡻 Is better
CRS: Hyperactivity Index	5.58	5.94	2.807	0.006	🡻 Is better
Family Cohesion and Adaptability	65.29	64.48	3.333	0.008	🡹 Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 10: K-6th grade t-test results comparing pre-test to post-test for parents of male survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS[9]: Conduct Problems – Parent Rating (n=216)	0-24		3.39	3.56	-0.641	0.522	🡻 Is better	0.837
CRS: Learning Problems – Parent Rating (n=215)	0-12		2.37	2.53	-0.983	0.327	🡻 Is better	0.772
CRS: Psychosomatic – Parent Rating (n=216)	0-12		0.597	0.657	-0.648	0.517	🡻 Is better	0.686
CRS: Impulsive-Hyperactive – Parent Rating (n=214)	0-12		3.55	3.63	-0.435	0.664	🡻 Is better	0.786
CRS: Anxiety – Parent Rating (n=216)	0-12		2.25	2.13	1.023	0.308	🡻 Is better	0.659
Family Cohesion & Adaptability (Parent) (n=216)	20-100		64.57	63.81	1.241	0.216	🡹 Is better	0.758

*p≤.05, **p≤.01, ***p≤.001.

[8] CRS = Conner's Rating Scales
[9] CRS = Conner's Rating Scales

Table 11: Examining the effect of parent's of male youth rating pre-test CRS scores on post-test CRS scores (n=213)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[10]: Conduct Problems	3.39	3.57	0.448	0.002	Is better
CRS: Learning Problems	2.38	2.51	0.703	0.003	Is better
CRS: Psychosomatic	0.60	0.65	0.304	0.001	Is better
CRS: Impulsive-Hyperactive	3.54	3.63	0.212	0.001	Is better
CRS: Anxiety	2.29	2.15	1.310	0.006	Is better
CRS: Hyperactivity Index	6.21	6.31	0.081	0.000	Is better
Family Cohesion and Adaptability	64.58	64.01	0.876	0.004	Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 12: K-6th grade t-test results comparing pre-test to post-test for parents of female survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS[11]: Conduct Problems – Parent Rating (n=220)	0-24		3.02	3.14	-0.511	0.610	Is better	0.780
CRS: Learning Problems – Parent Rating (n=219)	0-12		1.89	2.17	-2.075*	0.039	Is better	0.738
CRS: Psychosomatic – Parent Rating (n=219)	0-12		0.66	0.87	-2.378*	0.018	Is better	0.553
CRS: Impulsive-Hyperactive – Parent Rating (n=217)	0-12		3.00	3.22	-1.306	0.193	Is better	0.738
CRS: Anxiety – Parent Rating (n=219)	0-12		2.32	2.36	-0.301	0.764	Is better	0.675
CRS: Hyperactivity Index Parent Rating (n=220)	0-30		5.05	5.64	-2.154*	0.032	Is better	0.782

*p≤.05, **p≤.01, ***p≤.001.

[10] CRS = Conner's Rating Scales
[11] CRS = Conner's Rating Scales

Table 13: Examining the effect of parent's of female youth rating pre-test CRS scores on post-test CRS scores (n=221)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[12]: Conduct Problems	2.99	3.17	0.675	0.003	🡻 Is better
CRS: Learning Problems	1.87	2.14	3.916*	0.018	🡻 Is better
CRS: Psychosomatic	0.66	0.88	5.685*	0.026	🡻 Is better
CRS: Impulsive-Hyperactive	3.00	3.21	1.706	0.008	🡻 Is better
CRS: Anxiety	2.34	2.38	0.091	0.000	🡻 Is better
CRS: Hyperactivity Index	5.00	5.65	5.614*	0.025	🡻 Is better
Family Cohesion and Adaptability	65.96	64.87	2.731	0.013	🡹 Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 14: Examining the change from pre-test to post-test among teacher's ratings of youth

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS: Conduct Problems – Teacher Rating (n=684)	0-24		2.17	2.66	-3.170***	0.000	🡻 Is better	0.896
CRS: Hyperactivity – Teacher Rating (n=684)	0-21		3.41	3.35	0.420	0.675	🡻 Is better	0.926
CRS: Inattentive-Passive – Teacher Rating (n=684)	0-24		4.29	4.34	-0.337	0.736	🡻 Is better	0.881
Hyperactivity Index – Teacher Rating (n=684)	0-30		4.69	4.91	-1.326	0.185	🡻 Is better	0.904

*p≤.05, **p≤.01, ***p≤.001.

[12] CRS = Conner's Rating Scales

Table 15: Examining the effect of time on teacher's rating of youth at post-test controlling for pre-test estimates (N=684)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[13]: Conduct Problems	2.17	2.66	13.762*	0.020	🡻 Is better
CRS: Hyperactivity	3.41	3.35	0.176	0.000	🡻 Is better
CRS: Inattentive-Passive	4.29	4.34	0.113	0.000	🡻 Is better
CRS: Hyperactivity Index	4.69	4.91	1.758	0.003	🡻 Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 16: K-6th grade t-test results for teacher ratings of male survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS: Conduct Problems – Teacher Rating (n=684)	0-24		2.97	3.43	-2.080*	0.038	🡻 Is better	0.911
CRS: Hyperactivity – Teacher Rating (n=684)	0-21		4.74	4.63	0.451	-0.652	🡻 Is better	0.931
CRS: Inattentive-Passive – Teacher Rating (n=684)	0-24		5.35	5.18	0.726	0.468	🡻 Is better	0.877
Hyperactivity Index – Teacher Rating (n=684)	0-30		6.40	6.56	-0.544	0.587	🡻 Is better	0.906

*p≤.05, **p≤.01, ***p≤.001.

[13] CRS = Conner's Rating Scales

Table 17: Examining the effect of teacher's rating for male youth on pre-test CRS scores on post-test CRS Scores (n=369)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[14]: Conduct Problems	2.97	3.43	4.325*	0.014	🡻 Is better
CRS: Hyperactivity	4.74	4.63	0.204	0.001	🡻 Is better
CRS: Inattentive-Passive	5.35	5.18	0.527	0.002	🡻 Is better
CRS: Hyperactivity Index	6.40	6.56	0.296	0.001	🡻 Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 18: K-6th grade t-test results for teacher ratings of female survey respondents

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	Paired T-Test	SIG.	Desired Outcome	Cron-bach's α
	Min	Max						
CRS: Conduct Problems – Teacher Rating (n=312)	0-24		1.47	1.99	-3.258***	0.001	🡻 Is better	0.851
CRS: Hyperactivity – Teacher Rating (n=312)	0-21		2.25	2.25	0.036	0.971	🡻 Is better	0.902
CRS: Inattentive-Passive – Teacher Rating (n=312)	0-24		3.34	3.60	-1.399	0.163	🡻 Is better	0.872
Hyperactivity Index – Teacher Rating (n=312)	0-30		3.20	3.49	-1.551	0.122	🡻 Is better	0.881

*p≤.05, **p≤.01, ***p≤.001.

[14] CRS = Conner's Rating Scales

Table 19: Examining the effect of teacher's rating for female youth on pre-test CRS scores on post-test CRS Scores (n=369)

Sub-Scale	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
CRS[15]: Conduct Problems	1.47	1.99	10.613	0.028	🡻 Is better
CRS: Hyperactivity	2.25	2.25	0.001	0.000	🡻 Is better
CRS: Inattentive-Passive	3.34	3.60	1.957	0.005	🡻 Is better
CRS: Hyperactivity Index	3.20	3.49	2.405	0.006	🡻 Is better

*p≤.05, **p≤.01, ***p≤.001.

[15] CRS = Conner's Rating Scales

Appendices E1-E8

New Mexico 12-17 Prevention Program Information and Findings

Includes the following:

- Program Information
- Data Interpretation Information
- Middle School Findings: E1-E4
- High School Findings: E5-E8

Note: [a] partial eta squared where effects are:
small = .01, medium = .06, large = .14 or larger.

Program Information

The following programs were implemented in FY 09 to address ATOD prevention among 12 to 17 year olds:

All Stars: All Stars is designed to delay the onset of ATOD, as well as early sexual activity and violence by strengthening participants' involvement in the community, strengthening relationships with adults, and cultivating beliefs that risky behaviors do not fit with the youth's personal ideas and aspirations. It can be implemented either in classroom or in community-based settings.

Botvin's Life Skills Training: The Life Skills Training universal classroom program is designed to address a wide range of risk and protective factors by teaching general personal and social skills in combination with drug resistance skills and normative education.

Dare to Be You: DTBY is a multilevel, primary prevention program for children and their families. The focus is on improving parent and child resiliency factors in the areas of communication, problem solving, self-esteem, and family skills.

Effective Black Parenting Program: EBP is a cognitive-behavioral program designed to foster effective family communication, healthy African-American identity, extended family values, child growth and development, and healthy self-esteem.

Learning 2 Lead: Learning 2 Lead is an experiential-based program designed for inner-city youth which includes mentoring and educational sessions.

Natural Helpers/Too Good for Drugs: TGFD is a long-term intervention that builds skills sequentially with the intention of preventing ATOD use and promoting healthy decision-making and positive, healthy youth development.

Nurturing Parenting Program: The Nurturing Parenting Programs are a family-centered initiative designed to build nurturing parenting skills as an alternative to abusive and neglecting parenting and child-rearing practices. The long term goals are to prevent recidivism in families receiving social services, lower the rate of multi-parent teenage pregnancies, reduce the rate of juvenile delinquency and alcohol abuse, and stop the intergenerational cycle of child abuse by teaching positive parenting behaviors.

Project Success: Project SUCCESS helps adolescents with emotional, learning, and behavioral problems expressed in behaviors such as fighting, cutting class, and talking back to teachers. The program teaches resistance and social competency skills for: communication, decision-making, stress and anger management, problem-solving, and resisting peer pressure.

Project Venture: Project Venture is a year-round program comprised of a set of components designed to develop skills, self-confidence, teamwork, and cooperation for Native American youth in tribal, alternative, and public schools.
Reconnecting Youth: Reconnecting Youth is a school-based indicated prevention program for grades 9-12 to teach skills to build resiliency with respect to risk factors and to moderate the early signs of substance abuse.

Strengthening Families: SFP involves elementary school aged children and their families in skills training using approaches to increase resilience and reduce risk factors for behavioral, emotional, academic, and social problems.

Talking Talons Youth Leadership: TTYL is a locally developed substance abuse prevention program, which utilizes animal husbandry and is founded on the theoretical framework whereby positive youth development and increased self-efficacy prevents substance abuse.

Data Interpretation Information

SFS survey questions

SFS survey questions focus on both life time use and past 30 day use of tobacco products, alcohol, and illicit drugs. Questions also ask participants' perspectives on intentions to smoke cigarettes and acceptability of alcohol use for teens. Additionally, SFS high school participants answer questions related to social norms of substance use as well as missing school due to feeling "unsafe".

YRRS Comparison data information

Data collected in the Youth Risk and Resiliency Survey (YRRS) survey was chosen as a comparison dataset. The YRRS is administered to approximately 40,000 6^{th}-12^{th} grade students across the state of New Mexico and ATOD questions identical to those on the SFS survey. The YRRS data is a representative sample of New Mexico students, with results reported as weighted means. This indicates that the data point reported for each question on the YRRS can be considered to equal the average New Mexico student's answer for the question, and gives us the opportunity to theoretically compare the average SFS participant with the average New Mexico student for each grade level. Although testing for significant differences between the two data sets is not feasible, the YRRS does provide an excellent comparison group for assessing general differences between an average SFS student and the average New Mexico student not involved in SFS activities.

YRRS data is only collected once per grade level (in this case, Fall 2007) and SFS data is collected at the beginning and end of each grade. Therefore, YRRS data from the grade level collected was identified as "pre-test" comparison data, and YRRS data from the next grade level up was used as "post-test" comparison data in the figures presented. (For example, 7^{th} grade pretest SFS is compared to 7^{th} grade YRRS and 7^{th} grade posttest SFS is compared to 8^{th} grade YRRS).

Important points for using and interpreting this SFS data

Significant differences for each grade's average scores from pre- to post-test could be determined, and was assessed using McNemar's test and GLM. McNemar's test assesses the significance of the difference between two correlated proportions, such as might be found in the case where the two proportions are based on the same sample of subjects or on matched-pair samples. It is applied to 2×2 contingency tables with a dichotomous outcomes (e.g., yes/no, ever/never) with matched pairs of subjects. Any significant differences found are noted by (*<.05) in the figures below. Graphs report SFS and YRRS comparison data by grade level, with separate figures produced by gender.

What should I be looking for?

Overall, look for trends in the data that show either decrease in use, stable use, or increase in use that isn't significant for SFS students. You do not need to see significant decreases in ATOD use behavior in order to demonstrate an effective program. Expect to see some increase in ATOD use between grades simply because students are getting older. A successful program can show it is having an impact by demonstrating that any increase isn't more than expected, that no increase occurred, or a decrease in ATOD use took place.

What should I know to make sure I'm interpreting data correctly?

-ceiling /floor effects. When the group's score on a question starts off extremely high or extremely low on the pre-test, it might not be possible to see any significant change in the score the post-test. For instance, if only a very small number of students report using inhalants on the pre-test it might not be possible to detect a decrease in inhalant use at post-test because hardly any students used inhalants to begin with. Because of this, pre-test scores near 0% or 100% with little to no change at post-test should be interpreted cautiously.

-maturation. A maturation effect occurs when changes in the group's score over time happens through naturally occurring processes. This is particularly true for adolescents. We expect to see a natural increase in drug use with each increasing grade simply due to students getting older. Therefore, SFS programs may be creating a positive impact on ATOD use behavior even if an increase in use is shown in the data. In these cases, look for a smaller increase in use by the SFS group compared to the YRRS group to help assess the program's effects. More importantly, look for a non-significant increase in use between pre and post-test for SFS students.

-Baseline differences. In general, a comparison group and an intervention group should have very similar scores at pre-test. This helps to show the groups are alike before intervention occurs. When the two groups are not similar at pre-test, compare the changes in behavior between groups a little more cautiously.

-Differences between comparison and intervention groups. To assess whether increases in use are below rates expected because of maturation, compare SFS data with YRRS data on the figure. Look for the reported use by SFS participants to be generally lower than YRRS participant use and/or SFS student use increasing at a smaller rate between pre- and post-test when compared to the YRRS data. Look for this in an individual grade as well as a general overall trend across grades.

-Small "N". In some cases, particularly with the High School SFS data, the number of students responding to the survey was small. When this happens, a change for a small number of individuals can inflate the post-test results to look like a substantial change for the overall group has occurred. The sample size, and more details about it, is reported at the beginning of each appendix (E1-E4).

Appendix E1
SFS Middle School: Total Sample Analysis Results

2009 Demographics for Middle School SFS Program Participants

Mean Age for Middle School SFS Program Participants: μ= 12.39 sd=1.251

Table 1: Demographics for middle school SFS program participants (n= 1,795)

Demographic	N	% SFS Program Participants
Grade		
4th grade	68	3.8%
5th grade	133	7.5%
6th grade	400	22.5%
7th grade	745	42.0%
8th grade	407	22.9%
9th grade	22	1.2%
Biological Sex		
Male	896	50.2%
Female	888	49.8%
Race/Ethnicity		
White	344	20.3%
Hispanic	715	42.2%
Native American	578	34.1%
Other	58	3.4%
Language Other than English Spoken Most Often[a]		
Yes	968	53.5%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

2009 Past 30-day Substance Use Rates for Middle School SFS Program Participants

Tables 2-3 capture the percentage of Middle School SFS Program Participants self-reporting past 30-day substance use at pre-test and post-test along with tests of significance.

Table 2: Past 30-day ATOD use[a] differences from pre-test to post-test for middle school SFS program participants (n=1,733)

Substance	% Pre-test	% Post-test	McNemar test
Cigarettes (n=1,672)	8.1 %	8.3%	.004***
Chewing Tobacco (n=1,779)	2.5%	3.0%	.263
Alcohol (n=1,642)	10.3%	10.4%	.001***
Marijuana (n=1,736)	8.3%	9.3%	.000***
Binge Drinking (n=1,636)	5.1%	5.8%	.006***

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Past 30-day prescription drug use, differences from pre-test to post-test for middle school SFS program participants (n=1,733)

Substance	% Pre-test	% Post-test	McNemar test
Any prescription medication not prescribed (n=1,660)	3.6%	4.1%	.480
Any cough medication not prescribed (n=1,759)	8.8%	8.6%	.892
Any prescription pain pills not prescribed (n=1,763)	3.1%	3.5%	.476
Any Ritalin, Adderal, or Prozac not prescribed (n=1,754)	1.6%	1.3%	.405
Any pres sleep aids or tranquilizers not prescribed (n=1,752)	2.3%	2.6%	.804
Any other medications not prescribed (n=1,751)	5.0%	4.5%	.415

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test

Scale scores and tests of significance for Middle School SFS Program Participants are provided below for the behavioral outcomes of interest.

Table 4: Sum scale scores, significance tests and reliability statistics for middle school SFS program participants

Sub-Scale	Range	Pre-test Sum	Cron-bach's ∞	Post-test Sum	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n=1,719)	5-20	15.33	.909	15.43	.917	-0.830	↑ Is better
Intentions to Smoke (n=1,406)	2-9	8.62	.081	2.79	.769	12.775***	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 5: Attitudes toward alcohol use [a] for middle school SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=1,778)	3.80	3.78	1.118	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=1,772)	3.64	3.57	3.808***	↑ Is better

a Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

2009 GLM Analysis on Measures

Table 6: Examining the effect of time on post-test measure mean scores controlling for pre-test estimates (n=1,697)

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
	Min	Max					
Risk of Harm	1-5		3.06	3.08	0.195	0.000	Is better
Intentions to Smoke	0-3		1.05	1.10	13.815***	0.008	Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 7: Examining the effect of time on post-test substance use measure mean scores controlling for pre-test estimates (n=1,697)

Substance	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Cigarettes	0.08	0.08	0.064	0.000	Is better
Chewing Tobacco	0.02	0.03	0.750	0.000	Is better
Alcohol	0.10	0.10	0.049	0.000	Is better
Marijuana	0.08	0.09	1.125	0.001	Is better
Binge Drinking	0.05	0.06	1.923	0.001	Is better
Any Prescription Medication Not Prescribed	0.04	0.04	0.263	0.000	Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

2009 Regression Analysis on Measures

Comparisons were done using linear regression techniques to get measures of effect size. The β for the pre-test substance use measure essentially reflects the effect size of time with respect to use.

Table 8: Examining the effect of the pre-test risk of harm measure on post-test scores controlling for demographic characteristics

Variables	β	95% CI
Age	-.070**	-.084 – -.019
Biological Sex		
Male	*Referent*	
Female	.030	-.027 – .139
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	-.085**	-.280 – -.040
Native American	- .123***	-.366 – -.117
Other	-.069**	.613 – -.114
Other Language (Yes)	.019	-.055 .125
Risk of Harm Score at Pre-test	.375***	.331 – .423
Adjusted R-Squared: .165		

*p≤.05, **p≤.01, ***p≤.001.

Table 9: Examining the effect of pre-test intentions to smoke measure on post-test scores controlling for demographic characteristics

Variables	β	95% CI
Age	.054*	.008 – .069
Biological Sex		
Male	*Referent*	
Female	-.051*	-.164 – -.015
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.035	-.045 – .171
Native American	.035	-.047 – .178
Other	.018	-.133 – .310
Other Language (Yes)	.031	-.025 .137
Intentions to Smoke Score at Pre-test	.459	.540 – .654
Adjusted R-Squared: .233		

*p≤.05, **p≤.01, ***p≤.001.

Table 10: Examining the effect of pre-test cigarette use on post-test cigarette use controlling for demographic characteristics

Variables	β	95% CI
Age	.039	-.018 – .166
Biological Sex		
Male	*Referent*	
Female	.002	-.219 – .241
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.024	-.215 – .450
Native American	.041	-.137 – .551
Other	.382	-.382 – .998
Other Language (Yes)	-.007	-.282 .217
Cigarette Use at Pre-test	.121***	.266 – .623
Adjusted R-Squared: .015		

*p≤.05, **p≤.01, ***p≤.001.

Table 11: Examining the effect of pre-test chewing tobacco use on post-test chewing tobacco use controlling for demographic characteristics

Variables	β	95% CI
Age	.008	-.054 – .074
Biological Sex		
Male	*Referent*	
Female	-.020	-.228 – .094
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.033	-.120 – .346
Native American	.005	-.228 – .094
Other	.006	-.429 – .539
Other Language (Yes)	.008	-.148 .202
Chewing Tobacco Use at Pre-test	.101***	.199 – .562
Adjusted R-Squared: .008		

*p≤.05, **p≤.01, ***p≤.001.

Table 12: Examining the effect of pre-test alcohol use on post-test alcohol use controlling for demographic characteristics

Variables	β	95% CI
Age	.054*	.004 – .045
Biological Sex		
Male	*Referent*	
Female	.011	-.039 – .063
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.019	-.052 – .095
Native American	-.002	-.079 – .073
Other	.074**	.084 – .385
Other Language (Yes)	.002	-.053 .057
Alcohol Use at Pre-test	.372***	.307 – .392
Adjusted R-Squared: .148		

*p≤.05, **p≤.01, ***p≤.001.

Table 13: Examining the effect of pre-test binge drinking on post-test binge drinking controlling for demographic characteristics

Variables	β	95% CI
Age	.036	-.004 – .036
Biological Sex		
Male	*Referent*	
Female	-.025	-.078 – .023
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.039	-.028 – .118
Native American	.024	-.047 – .103
Other	.034	-.042 – .256
Other Language (Yes)	.020	-.032 .078
Binge Drinking at Pre-test	.364***	.294 – .377
Adjusted R-Squared: .138		

*p≤.05, **p≤.01, ***p≤.001.

Table 14: Examining the effect of pre-test marijuana use on post-test marijuana use controlling for demographic characteristics

Variables	β	95% CI
Age	.038	.000 – .045
Biological Sex		
Male	*Referent*	
Female	-.005	-.063 – .050
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.029	-.037 – .125
Native American	.064*	.016 – .184
Other	.029	-.047 – .290
Other Language (Yes)	-.008	-.073 .049
Marijuana Use at Pre-test	.602***	.643 – .732
Adjusted R-Squared: .379		

Note: *p≤.05, **p≤.01, ***p≤.001.

Appendix E2
SFS Middle School: Male/Female Analysis Results

2009 Demographics for Middle School SFS Program Participants by Biological Sex

Mean Age for Male SFS Program Participants: μ=12.42 sd=1.227

Mean Age for Female SFS Program Participants: μ=12.36 sd=1.273

Table 1: Demographics for Middle School SFS Program Participants by Biological Sex

Demographic	% Male (n=896)	% Female (n=887)
Grade		
4th grade	3.6%	4.1%
5th grade	6.5%	8.5%
6th grade	22.5%	22.7%
7th grade	44.7%	39.3%
8th grade	21.5%	24.2%
9th grade	1.2%	1.2%
Race/Ethnicity		
White	20.3%	20.3%
Hispanic	42.2%	42.2%
Native American	33.1%	35.0%
Other	4.4%	2.5%
Language Other than English Spoken Most Often[a]	54.9%	54.6%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

Table 2: Past 30-day ATOD use[a] differences from pre-test to post-test for middle school SFS program participants by biological sex

Substance	Male			Female		
	% Pre-test	% Post-test	McNemar	% Pre-test	% Post-test	McNemar
Cigarettes (n= 834, 828)	8.5%	8.6%	0.061	7.6%	8.0%	0.025*
Chewing Tobacco (n= 887, 882)	2.6%	2.9%	0.710	2.3%	3.1%	0.189
Alcohol (n=826, 809)	10.5%	10.4%	0.060	9.8%	10.4%	0.005**
Marijuana (n=879, 851)	7.2%	9.5%	0.000***	9.2%	9.3%	0.004**
Binge Drinking (n=824, 804)	5.2%	6.3%	0.020*	4.9%	5.3%	0.175

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Past 30-day prescription drug use, differences from pre-test to post-test for middle school SFS program participants by biological sex

Substance	Male			Female		
	% Pre-test	% Post-test	McNemar	% Pre-test	% Post-test	McNemar
Any prescription medication not prescribed (n=890, 878)	3.0%	3.8%	0.371	4.1%	4.1%	1.000
Any cough medication not prescribed (n=879, 875)	9.2%	8.6%	0.847	8.1%	8.3%	1.000
Any prescription pain pills not prescribed (n=880, 878)	3.7%	3.3%	0.635	2.2%	3.5%	0.072
Any Ritalin, Adderal, or Prozac not prescribed (n=877, 872)	1.7%	1.3%	0.454	1.5%	1.1%	0.664
Any prescription sleep aids or tranquilizers not prescribed (n=875, 872)	2.5%	2.9%	0.735	2.0%	2.2%	1.000
Any other medications not prescribed (n=877, 869)	4.4%	4.3%	1.000	5.3%	4.5%	0.313

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test by Biological Sex

Scale scores and tests of significance are provided below for the behavioral outcomes of interest for youth by biological sex.

Male

Table 4: Mean scale scores, significance tests and reliability statistics for middle school male SFS program participants

Sub-Scale	Range	Pre-test Mean	Cron-bach's ∞	Post-test Mean	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n=853)	5-20	15.45	0.905	15.35	0.914	0.594	↑ Is better
Intentions to Smoke (n=706)	0-12	2.61	0.085	2.89	0.069	-2.722**	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 5: Attitudes toward alcohol use[a] for middle school male SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=887)	3.80	3.77	1.091	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=884)	3.63	3.53	4.112***	↑ Is better

a Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Female

Table 6: Mean scale scores, significance tests and reliability statistics for middle school female SFS program participants

Sub-Scale	Range	Pre-test Mean	Cron-bach's ∞	Post-test Mean	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n=857)	5-20	15.23	0.912	15.55	0.919	-1.796	↑ Is better
Intentions to Smoke (n=693)	0-12	2.56	0.077	2.61	0.080	-1.256	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 7: Attitudes toward alcohol use[a] for middle school female SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=881)	3.80	3.79	0.383	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=878)	3.64	3.61	1.106	↑ Is better

a Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Summary of Findings for Middle School Youth Grades 6th – 8th

Results from the Strategies for Success (SFS) survey for all middle school students (6th-8th grade, ages 11 to 18 are presented in this appendix. Overall, an average of 1786 middle school students participated in the SFS survey process. Data were collected at 16 sites implementing programming.

For the majority of survey questions, a small rise in use rates was reported for both males and females. Due to maturation effects, this rise was expected. The majority of ATOD behaviors showed non-significant increases. This shows that, in general, SFS participants did not significantly increase their use of cigarettes, alcohol, or illicit drugs. Additionally, both male and female SFS participants consistently reported lower rates of use for cigarettes, alcohol, and illicit drugs than the YRRS comparison students for every survey question.

Females in all grades report lower incidence of ever trying smoking with a widening gap between SFS and YRRS groups over time. By 8th grade, only a third of SFS had tried smoking versus nearly half of YRRS respondents (figure 2). A comparable pattern is reported by females for smoking in the past 30 days, with only 10% of SFS females reporting this behavior compared to 24% of YRRS females (figure 4). Similar trends are seen for both males and females related to past 30 day alcohol use. Use for both groups stayed below 20% for SFS students across all middle school grades while YRRS students reported usage closer to 30%. There were significant changes in the direction opposite of what was expected for students' report of ever drinking alcohol and ever using marijuana. For both categories, SFS participants reported a significant increase in use at each grade level. The pattern of these changes mimics those of the YRRS students, suggesting rates of increase are similar to increases among the average New Mexico student.

NOTE: The YRRS and SFS comparison strategy used and described above in Appendix E: Data Interpretation Information meant YRRS data from 9th grade was paired with post-test 8th grade SFS data for comparisons. In some instances, the YRRS survey questions for 9th grade (high school) did not match the YRRS questions for 8th grade (middle school). When this occurred, no 9th grade YRRS data was available to include in the figure as an 8th grade post-test comparison data point. This use of 9th grade data, though helpful for assessing the data, also means that comparisons to YRRS for 8th grade pre/post should be approached cautiously. Differences in use rates of alcohol and drugs between middle and high school are expected and therefore may confound this comparison.

Figure 1: Percent of 6th-8th grade males who report ever trying smoking cigarettes

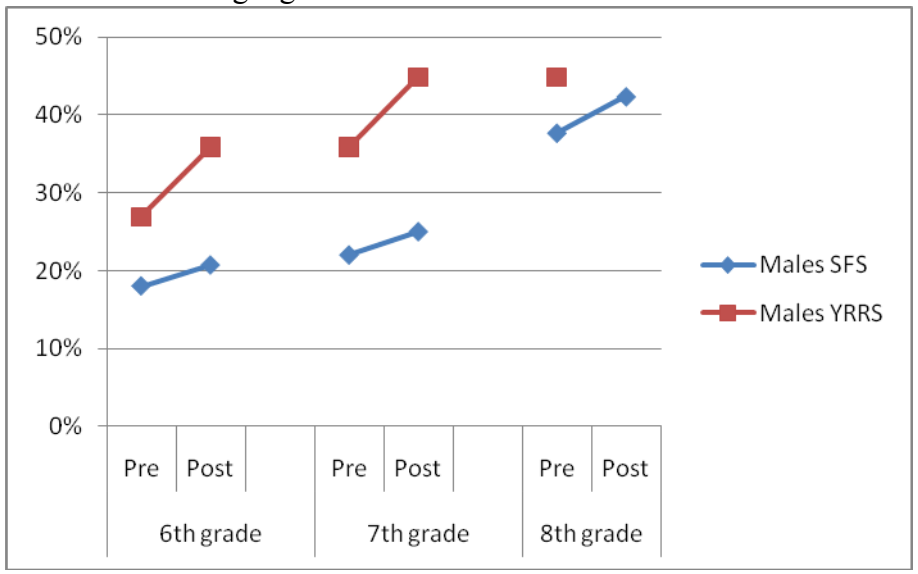


Figure 2: Percent of 6th-8th grade females who report ever trying smoking cigarettes

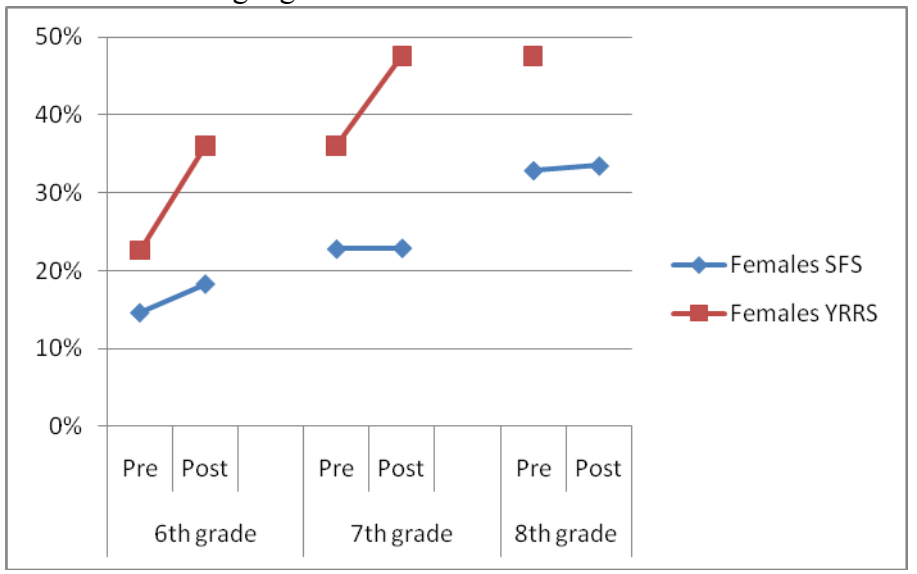


Figure 3: Percent of 6th-8th grade males who report smoking cigarettes in the past 30 days

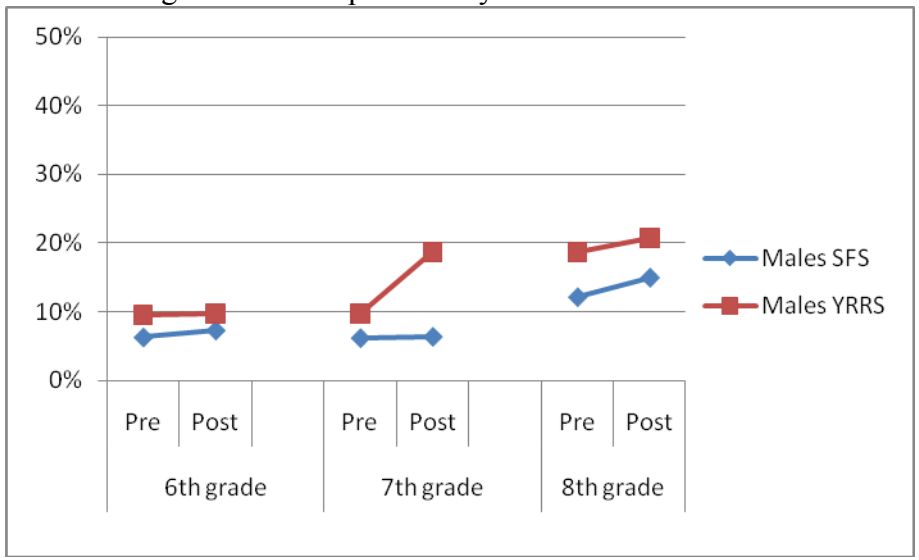


Figure 4: Percent of 6th-8th grade females who report smoking cigarettes in the past 30 days

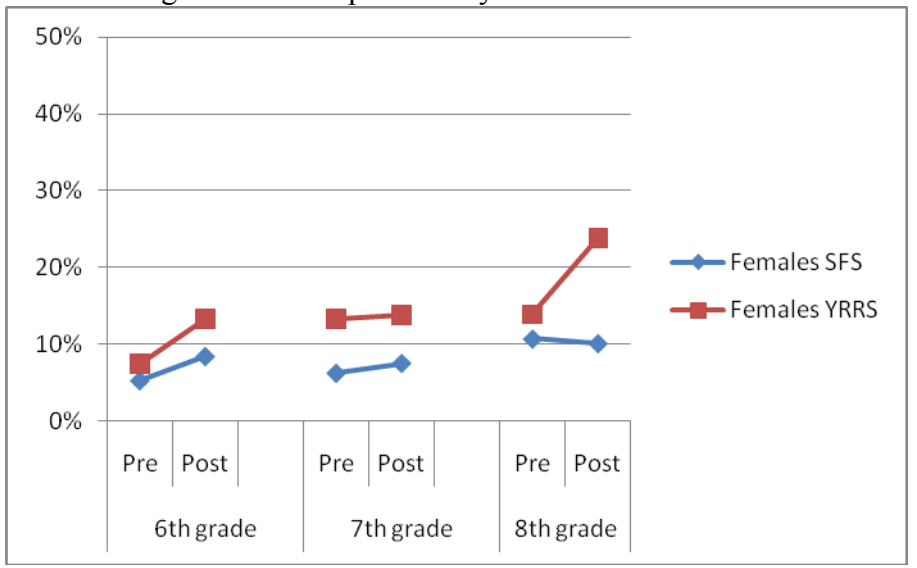


Figure 5: Percent of 6th-8th grade males who report using smokeless tobacco in the past 30 days

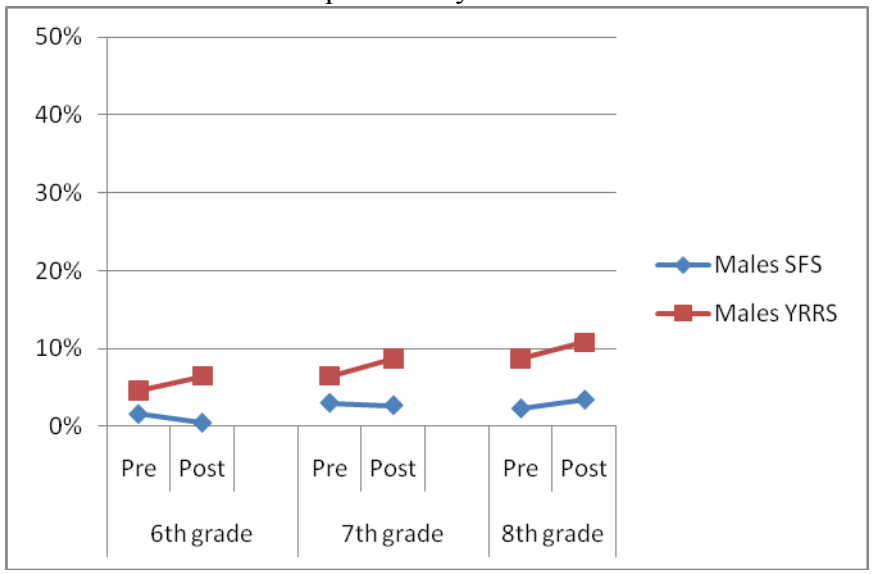


Figure 6: Percent of 6th-8th grade females who report using smokeless tobacco in the past 30 days

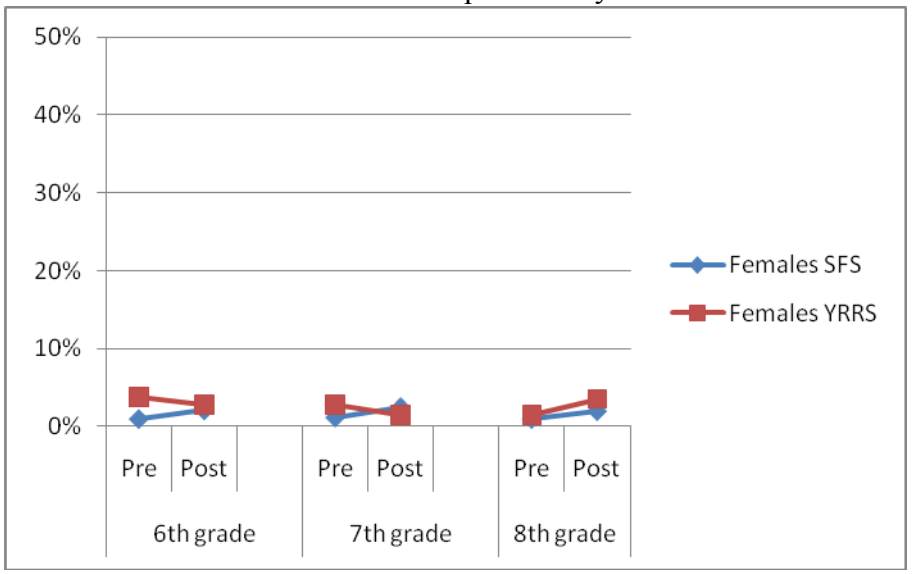


Figure 7: Percent of 6th-8th grade males who report intention to try smoking cigarettes soon

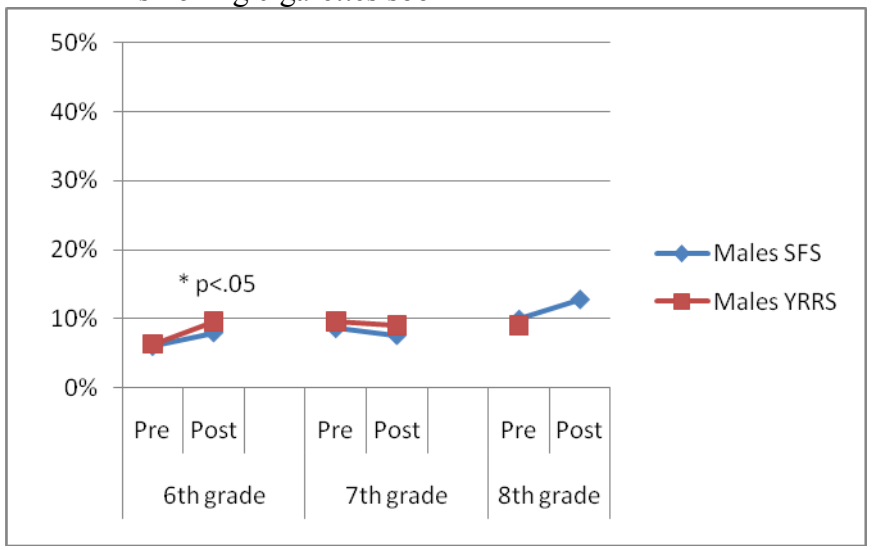


Figure 8: Percent of 6th-8th grade females who report intention to try smoking cigarettes soon

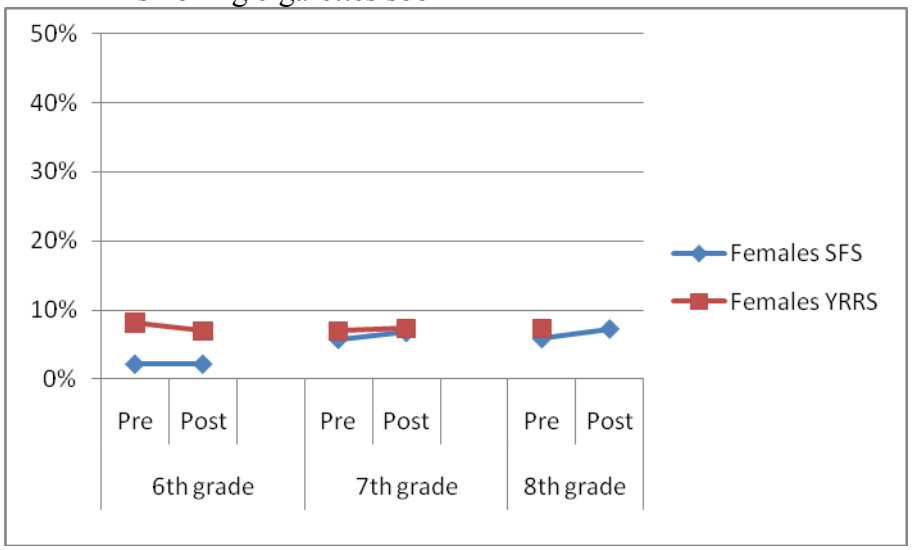


Figure 9: Percentage of 6th-8th grade males who report intention to smoke cigarettes in the next year

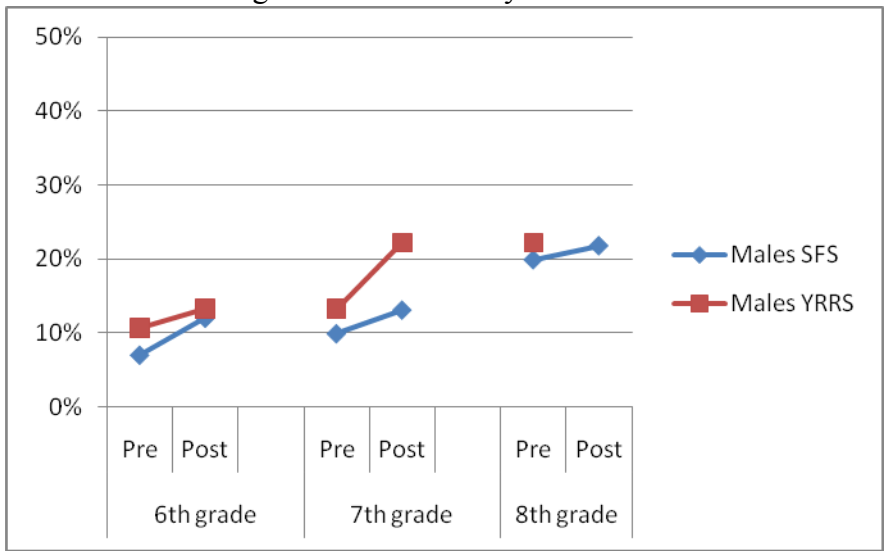


Figure 10: Percentage of 6th-8th grade females who report intention to smoke cigarettes in the next year

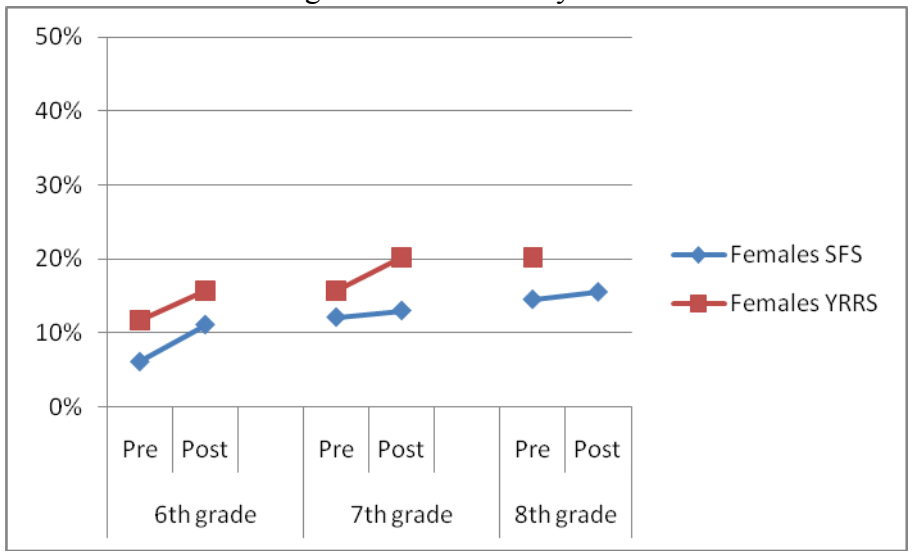


Figure 11: Percentage of 6th-8th grade males who report they would smoke if their best friend offered them a cigarette

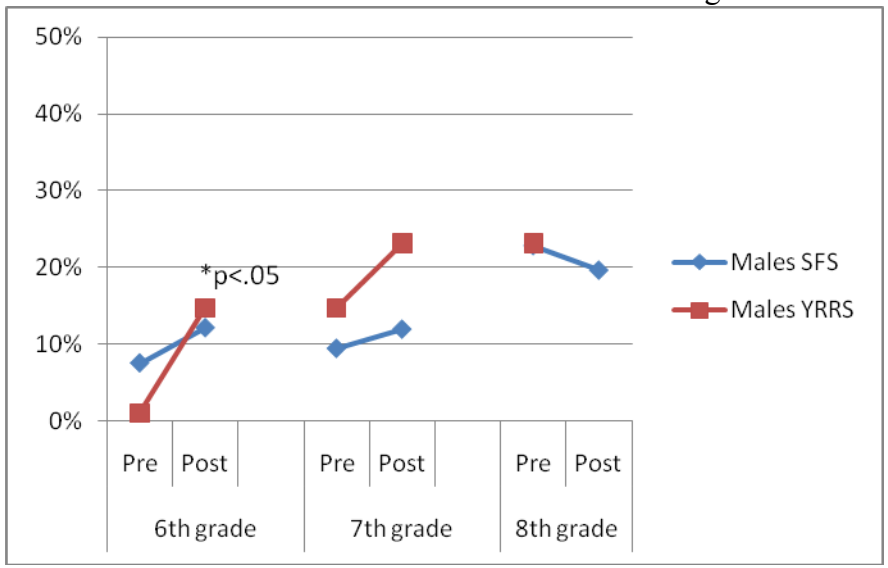


Figure 12: Percentage of 6th-8th grade females who report they would smoke if their best friend offered them a cigarette

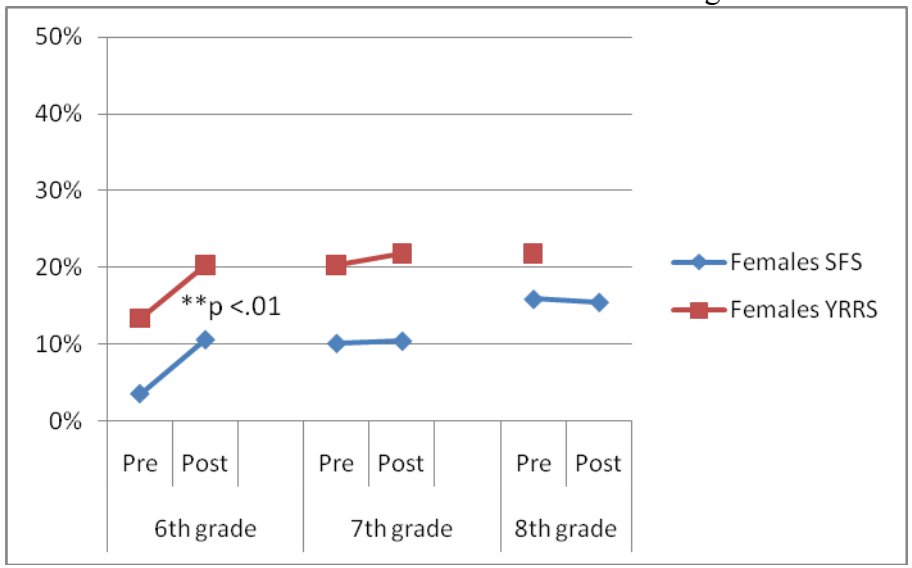


Figure 13: Percentage of 6th-8th grade males who report ever drinking alcohol

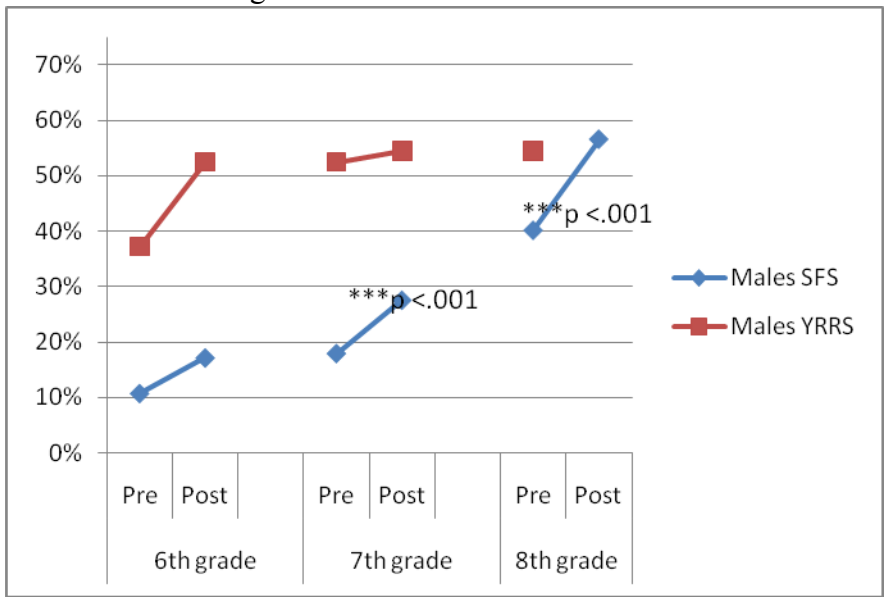


Figure 14: Percentage of 6th-8th grade females who report ever drinking alcohol

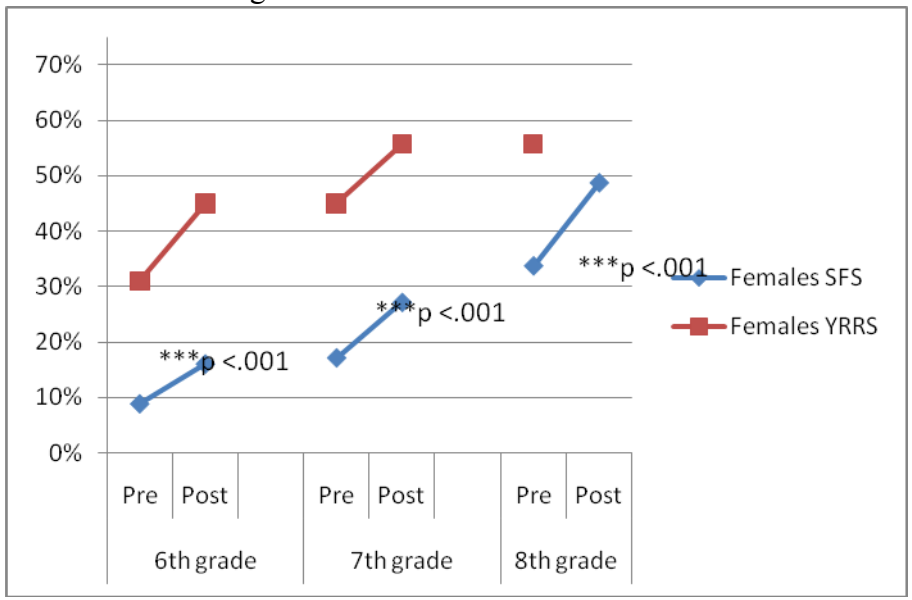


Figure 15: Percentage of 6th-8th grade males who report drinking alcohol in the past 30 days

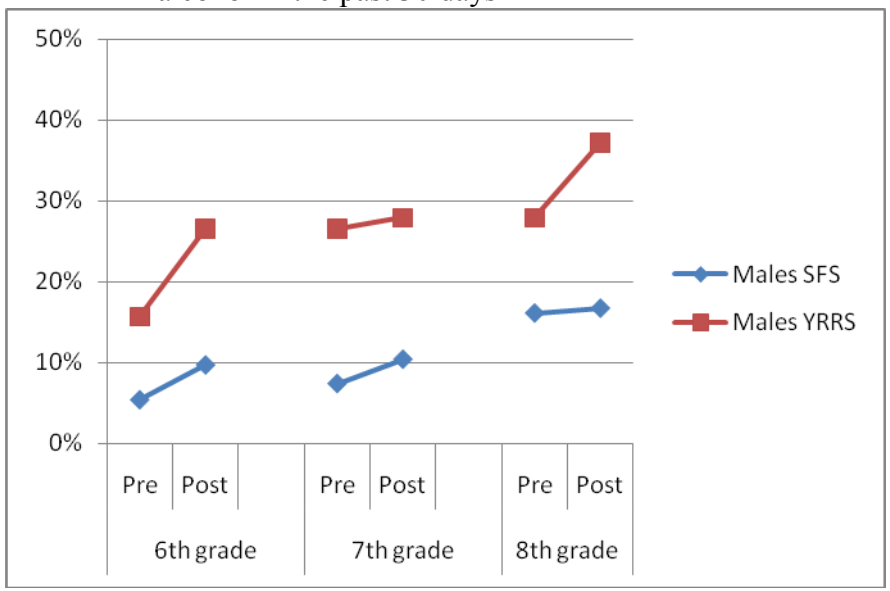


Figure 16: Percentage of 6th-8th grade females who report drinking alcohol in the past 30 days

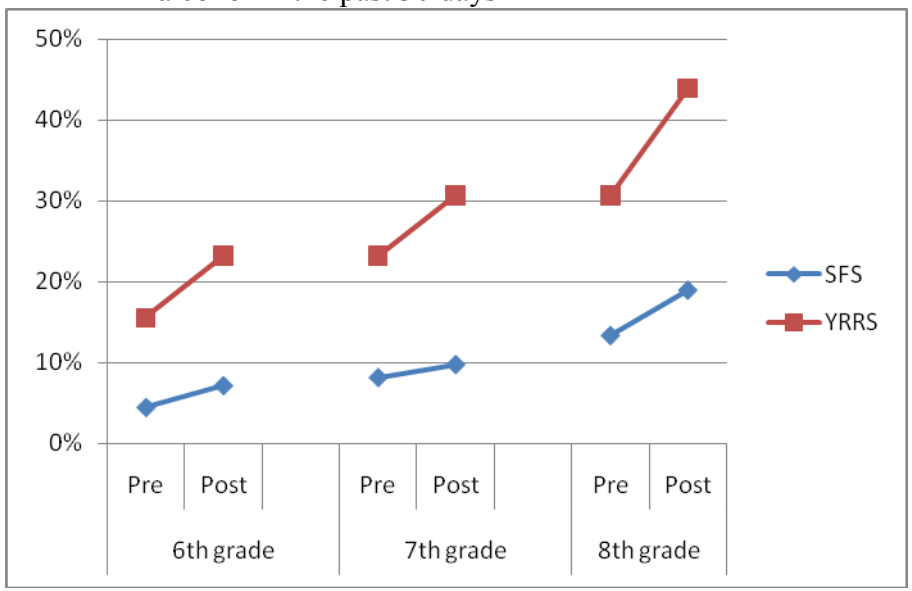


Figure 17: Percentage of 6th-8th grade males who report binge drinking in the past 30 days

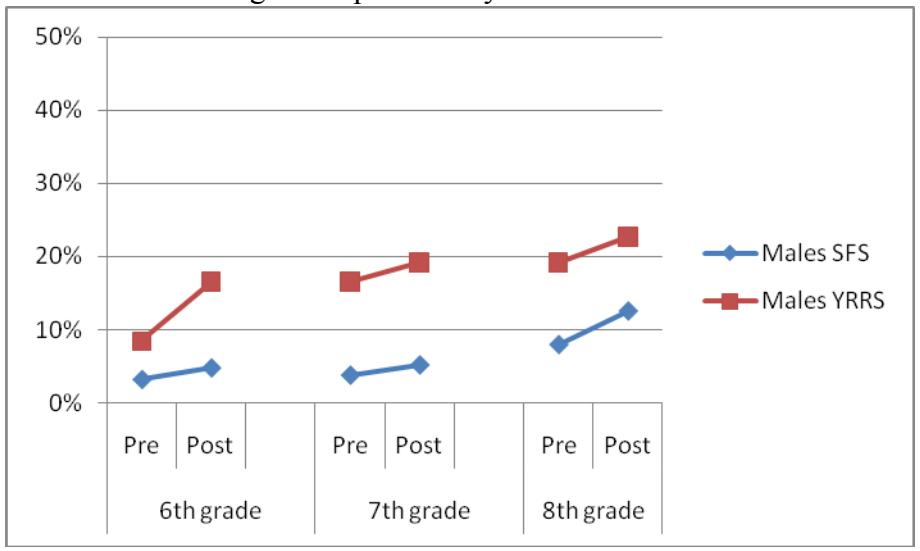


Figure 18: Percentage of 6th-8th grade females who report binge drinking in the past 30 days

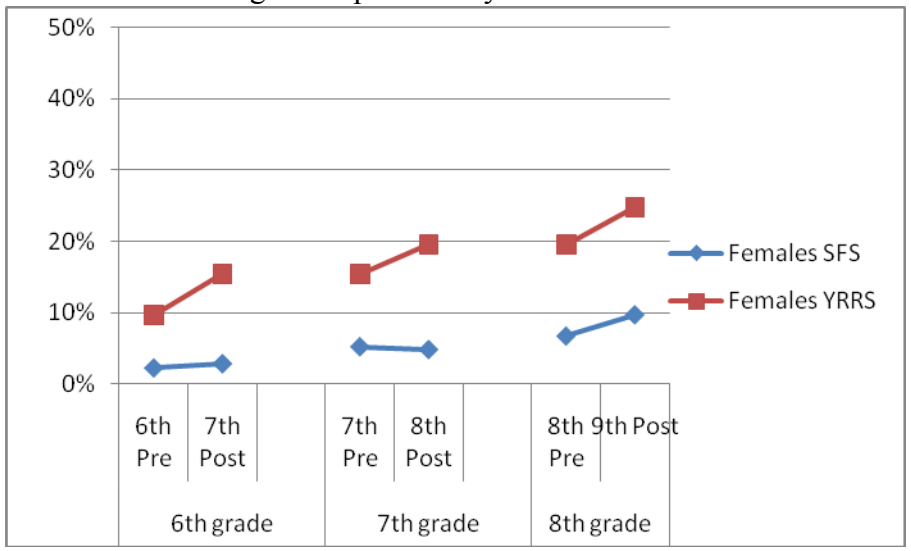


Figure 19: Percentage of 6th-8th grade males who reported ever using Marijuana

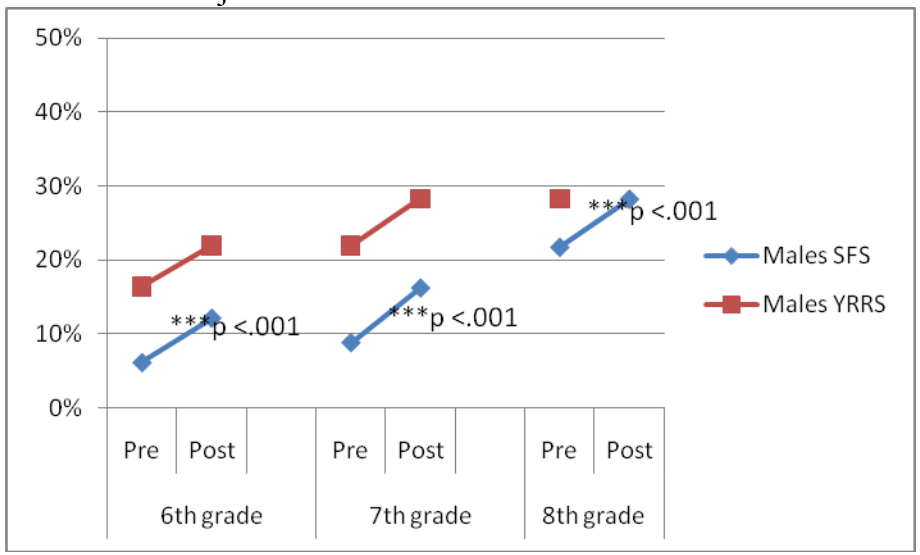


Figure 20: Percentage of 6th-8th grade females who reported ever using Marijuana

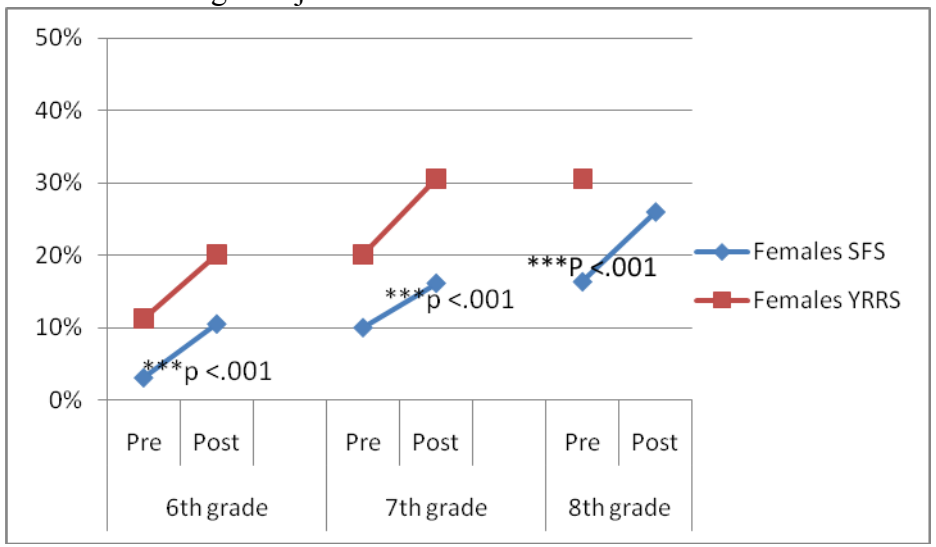


Figure 21 : Percentage of 6th-8th grade males who report using Marijuana in the past 30 days

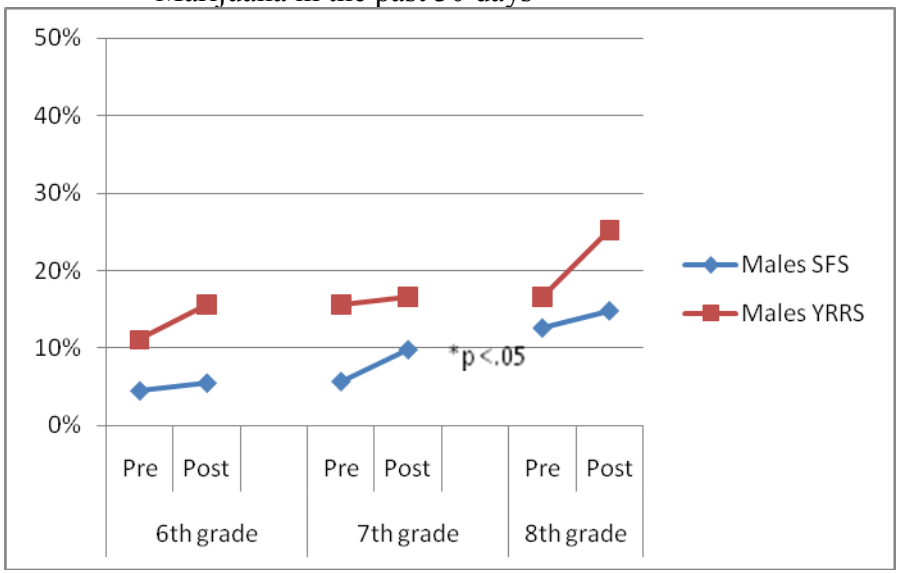


Figure 22: Percentage of 6th-8th grade females who report using Marijuana in the past 30 days

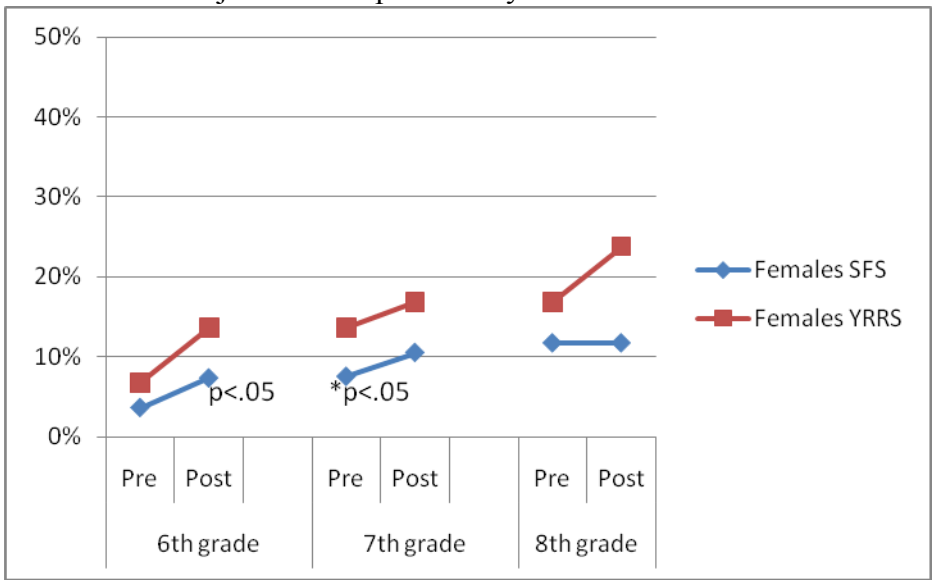


Figure 23: Percentage of 6th-8th grade males who report ever using Inhalants

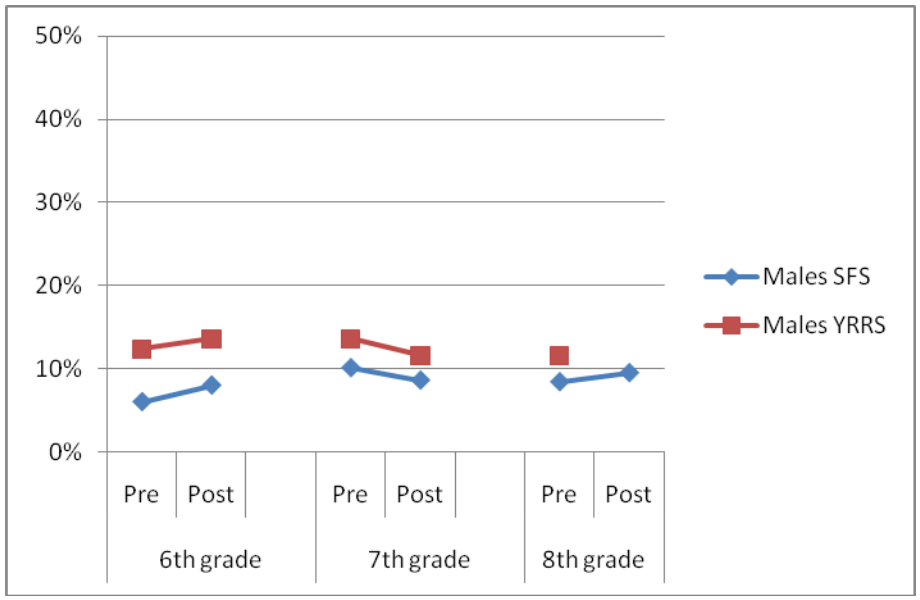


Figure 24: Percentage of 6th-8th grade females who report ever using Inhalants

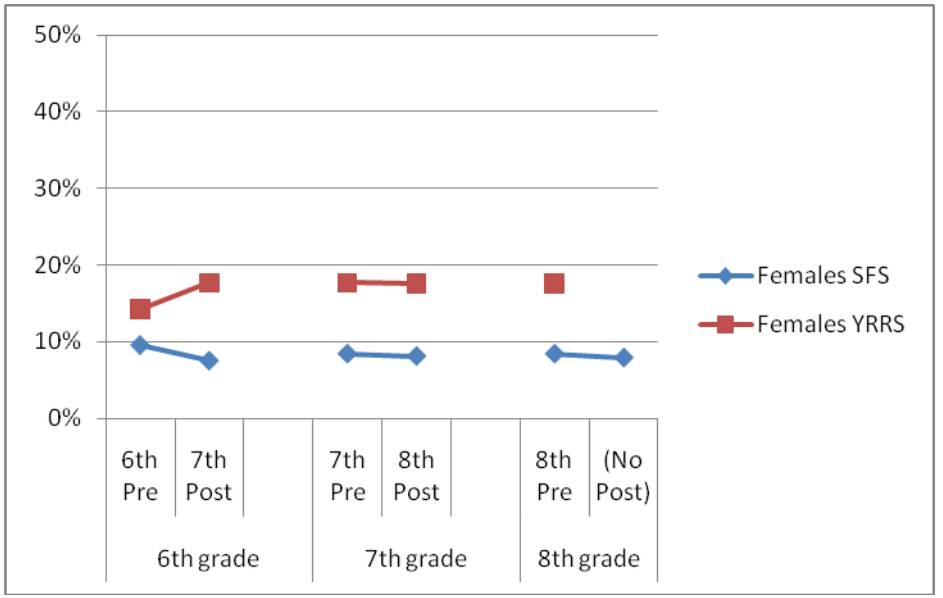


Figure 25: Percentage of 6th-8th grade males who report parents think it is wrong or very wrong for him/her to drink alcohol

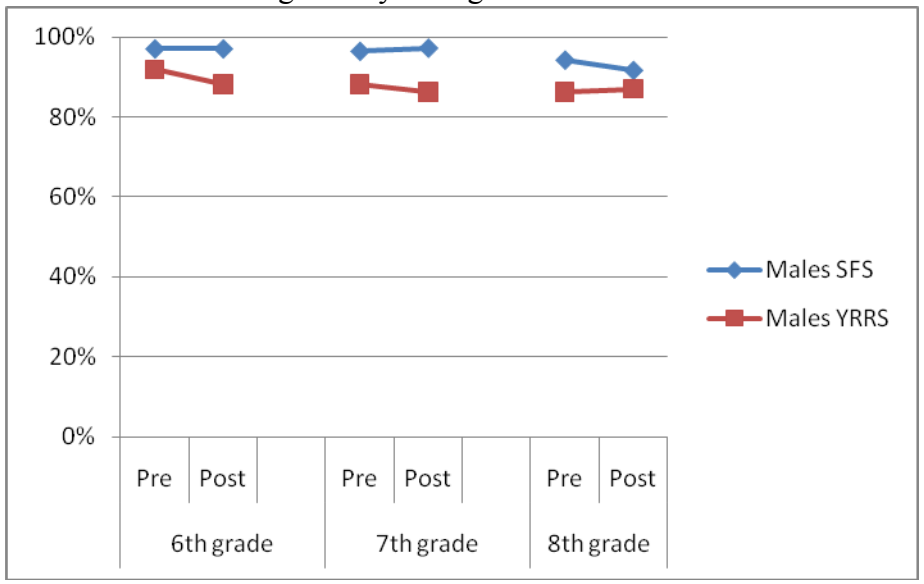


Figure 26: Percentage of 6th-8th grade females who report parents think it is wrong or very wrong for him/her to drink alcohol

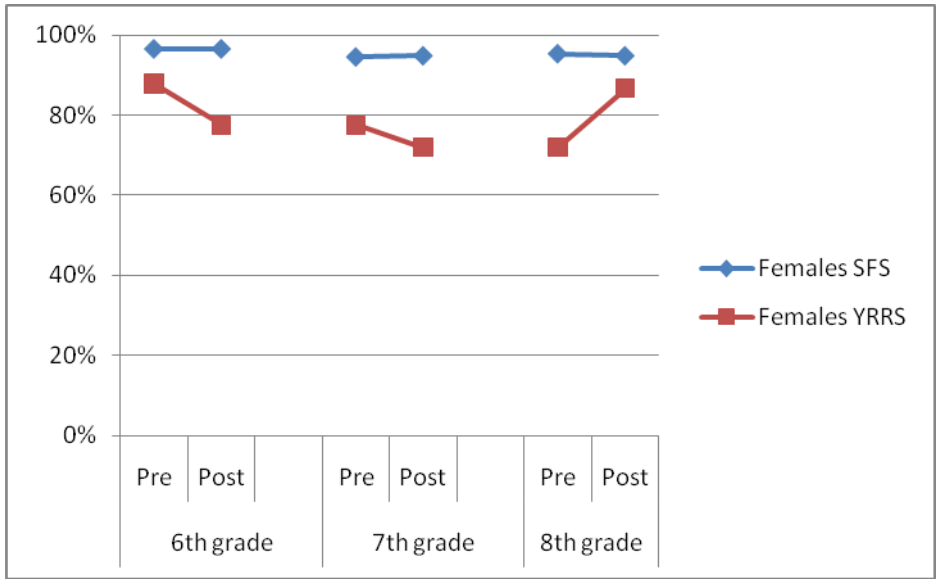


Figure 27: Percentage of 6th-8th grade males who report it is wrong or very wrong for someone his age to drink alcohol

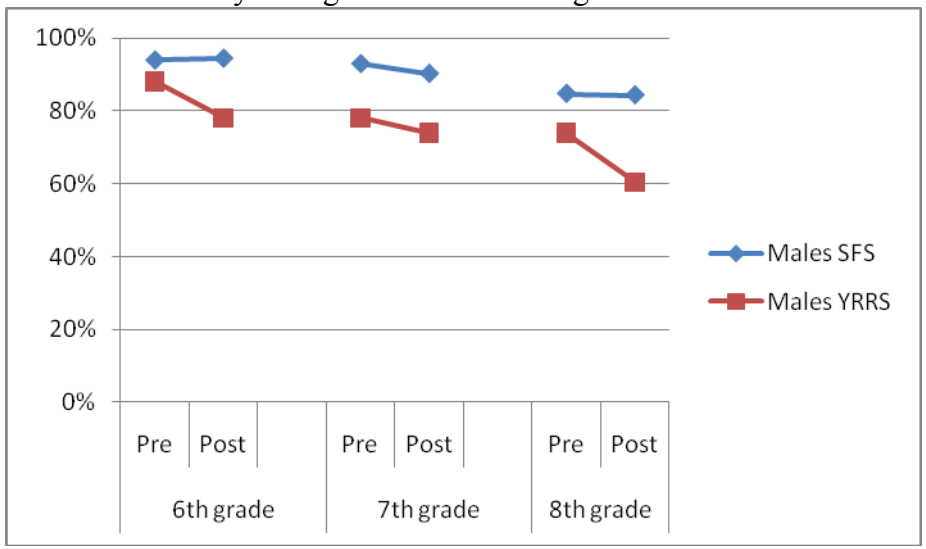
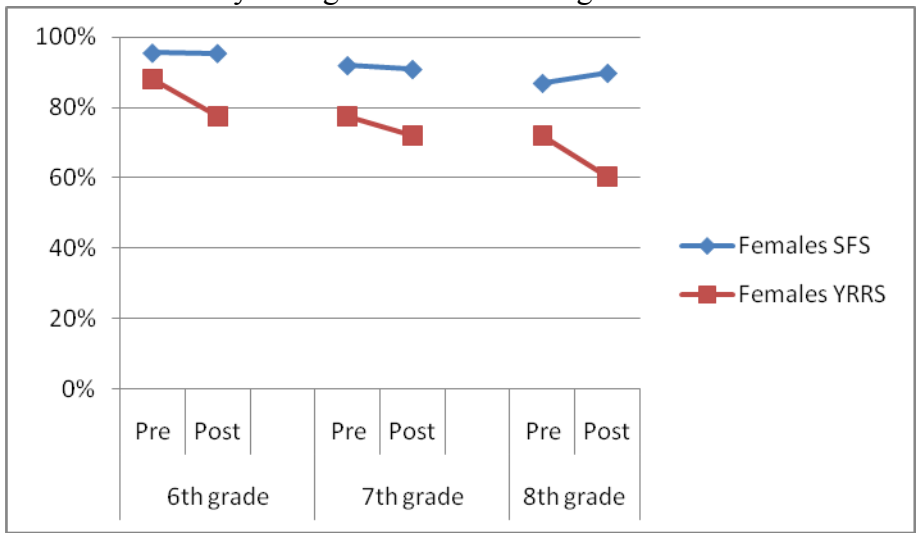


Figure 28: Percentage of 6th-8th grade females who report it is wrong or very wrong for someone her age to drink alcohol



Appendix E3
SFS Middle School: Hispanic Analysis Results

2009 Demographics for Middle School Hispanic SFS Program Participants

Mean Age for Middle School Hispanic SFS Program Participants: μ= 12.39 sd=1.251

Table 1: Demographic information for middle school Hispanic youth participants* (N=715)

Demographic	N	% SFS Program Participants
Grade		
Not in school	2	<1.0%
4th grade	15	2.1%
5th grade	23	3.2%
6th grade	148	20.7%
7th grade	300	42.3%
8th grade	222	31.3%
Biological Sex		
Male	353	49.4%
Female	361	50.6%
Language Other than English Spoken Most Often[a]		
Yes	453	64.3%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

2009 Past 30-day Substance Use Rates for Middle School Hispanic SFS Program Participants

Tables 2-3 capture the percentage of Middle School SFS Program Participants self-reporting past 30-day substance use at pre-test and post-test along with tests of significance.

Table 2: Past 30-day ATOD use[a] differences from pre-test to post-test for middle school Hispanic SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Cigarettes (n=665)	6.8 %	6.8%	0.417
Chewing Tobacco (n=710)	1.5%	2.4%	0.210
Alcohol (n=644)	11.2%	11.5%	0.023*
Marijuana (n=698)	6.9%	7.8%	0.008**
Binge Drinking (n=641)	4.9%	7.2%	0.002**

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Past 30-day prescription drug use, differences from pre-test to post-test for middle school Hispanic SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Any prescription medication not prescribed (n=710)	3.5%	4.1%	0.635
Any cough medication not prescribed (n=707)	9.3%	8.8%	0.920
Any prescription pain pills not prescribed (n=706)	2.7%	3.9%	0.124
Any Ritalin, Adderal, or Prozac not prescribed (n=704)	0.6%	1.1%	0.219
Any pres sleep aids or tranquilizers not prescribed (n=703)	1.3%	2.7%	0.064
Any other medications not prescribed (n=704)	4.7%	3.7%	0.337

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test

Scale scores and tests of significance for Middle School Hispanic SFS Program Participants are provided below for the behavioral outcomes of interest.

Table 4: Sum scale scores, significance tests and reliability statistics for middle school Hispanic SFS program participants

Sub-Scale	Range	Pre-test Sum	Cron-bach's ∞	Post-test Sum	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n=684)	5-20	15.62	.909	15.53	0.917	0.520	↑ Is better
Intentions to Smoke (n=552)	2-9	2.57	.081	2.80	0.769	-1.775	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 5: Attitudes towards alcohol use [a] for middle school Hispanic SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=707)	3.28	3.74	1.850	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=705)	3.60	3.52	2.557*	↑ Is better

[a] Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

2009 GLM Analysis on Measures for Middle School Hispanic SFS Program Participants

Table 6: Examining the effect of time on the post-test measure mean scores controlling for pre-test estimates (n=675)

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
	Min	Max					
Risk of Harm	1-5		3.12	3.09	0.607	0.001	↑ Is better
Intentions to Smoke	0-3		1.04	1.10	8.300**	0.012	↓ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 7: Examining the effect of post-test substance use mean scores controlling for pre-test estimates (n=675)

Substance	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Cigarettes	0.07	0.07	0.083	0.000	↓ Is better
Chewing Tobacco	0.01	0.02	1.668	0.002	↓ Is better
Alcohol	0.11	0.12	0.013	0.000	↓ Is better
Marijuana	0.07	0.08	0.243	0.000	↓ Is better
Binge Drinking	0.05	0.07	5.266*	0.008	↓ Is better
Any Prescription Medication Not Prescribed	0.04	0.04	0.641	0.001	↓ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Summary of Findings for Hispanic Middle School Students Grades 6-8

The following figures show survey results for Hispanic students participating in SFS programs. On average, 715 Hispanic middle school students completed the SFS survey. Responses were combined to create an overall average score for each question at pre-test and post-test for each grade. Results are reported by gender.

Overall, a small rise in use rates was reported for both Hispanic males and Hispanic females. Due to maturation effects, this rise was expected. However, relatively few questions demonstrated a significant increase in use between pre- and post-test for each grade level as well as by gender. This shows that, in general, SFS participants did not significantly increase their use of cigarettes, alcohol, or illicit drugs. Additionally, both male and female SFS participants consistently reported lower rates of use for cigarettes, alcohol, and illicit drugs than the YRRS comparison students for most survey questions. Several highlights from the data are reported below:

Although Hispanic females showed an increase in reported ever use of cigarettes, trends between 7th and 8th grade demonstrated a slowing of use for SFS participants. Report of binge drinking in the past 30 days for Hispanic males also showed promising results. Although increases were reported, these increases were not significant and were often much lower than YRRS reported use. Females also reported relatively low binge drinking behavior in the prior 30 days, with rates below 10% at all data points. Significant changes in marijuana use were reported for Hispanic females in both 7th and 8th grades. Reported rates of ever using marijuana jumped from 0% in 6th grade to over 10% by the end of 8th grade. However, this finding is still considerably lower than YRRS Hispanic females who reported over 30% use by the 8th grade. Even though SFS participants were significantly more likely to report *ever use* they were less likely to report *recent use* of marijuana. Reports of marijuana use in the past 30 days did not significantly increase for either gender at any grade. Furthermore, data showed an increasing gap between SFS and YRRS participants in past 30 day Marijuana use over the years even though both groups showed relatively similar use at baseline. This suggests SFS programs may be influencing marijuana use for Hispanic students participating in the programs.

NOTE: The YRRS and SFS comparison strategy used and described above (Appendix E:) meant YRRS data from 9th grade was paired with post-test 8th grade SFS data for comparisons. In some instances, the YRRS survey questions for 9th grade (high school) did not match the YRRS questions for 8th grade (middle school). When this occurred, no 9th grade YRRS data was available to include in the figure as an 8th grade post-test comparison data point. This use of 9th grade data, though helpful for assessing the data, also means that comparisons to YRRS for 8th grade pre/post should be approached cautiously. Differences in use rates of alcohol and drugs between middle and high school are expected and therefore may confound this comparison.

Figure 1: Percent of 6th-8th grade Hispanic males reporting ever tried smoking cigarettes

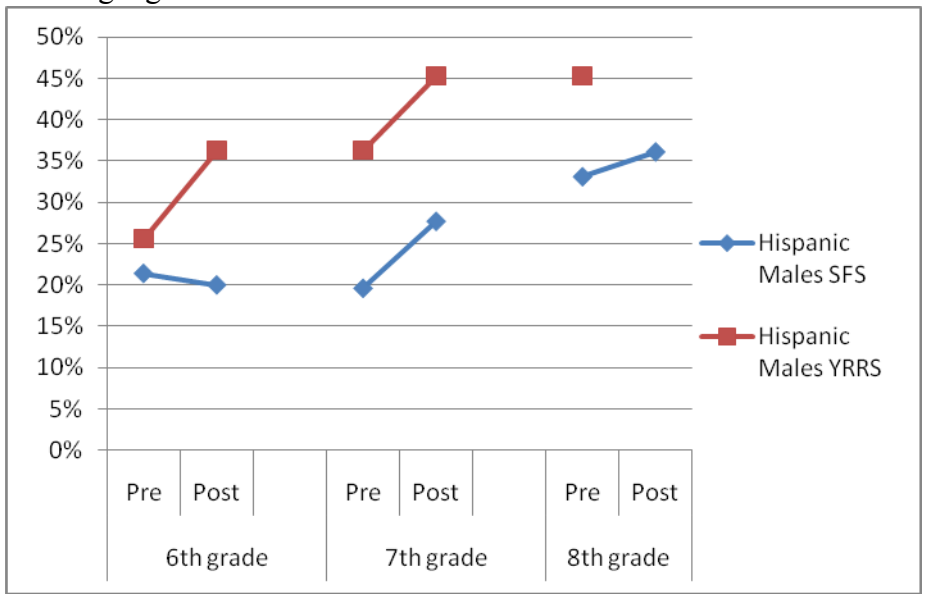


Figure 2: Percent of 6th-8th grade Hispanic females reporting ever tried smoking cigarettes

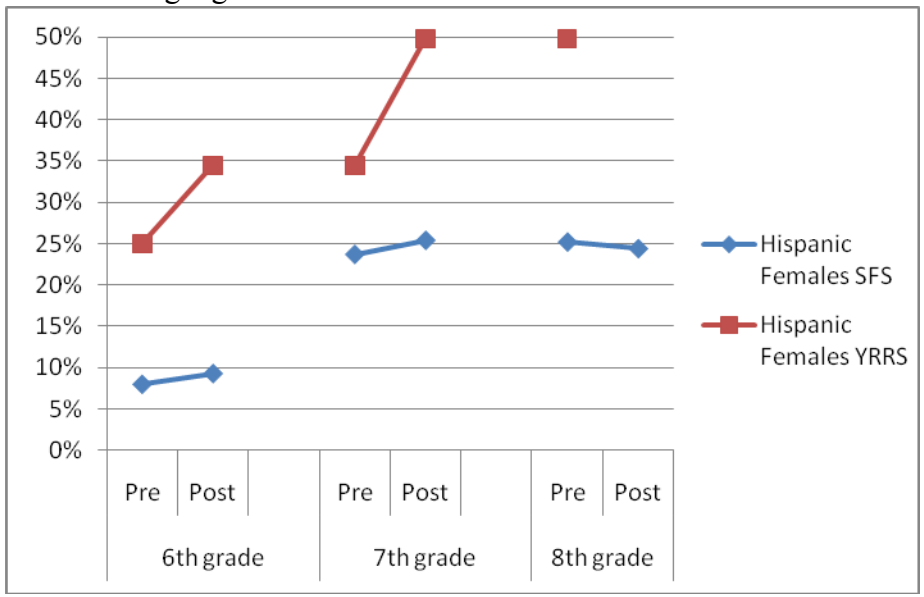


Figure 3: Percent of 6th-8th grade Hispanic males who report smoking cigarettes in the past 30 days

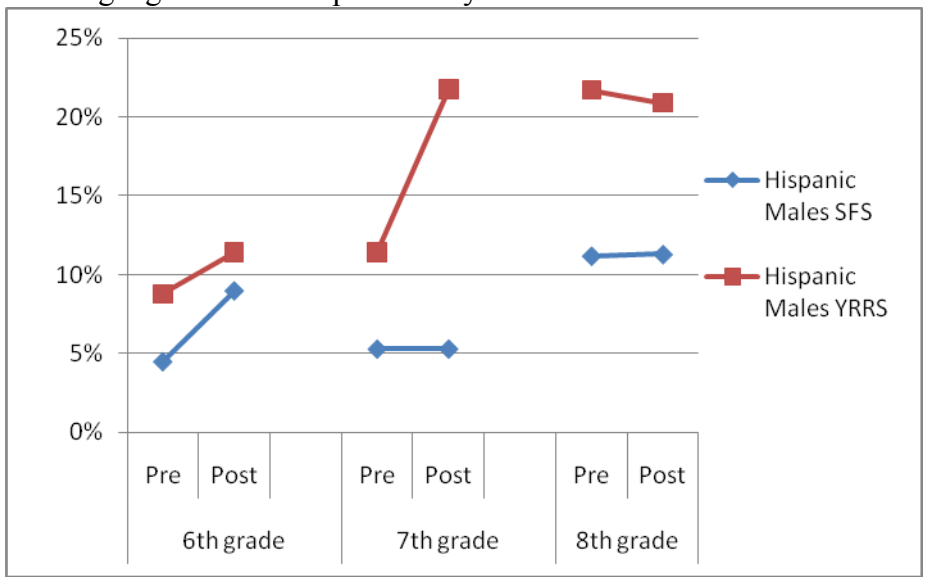


Figure 4: Percent of 6th-8th grade Hispanic females who report smoking cigarettes in the past 30 days

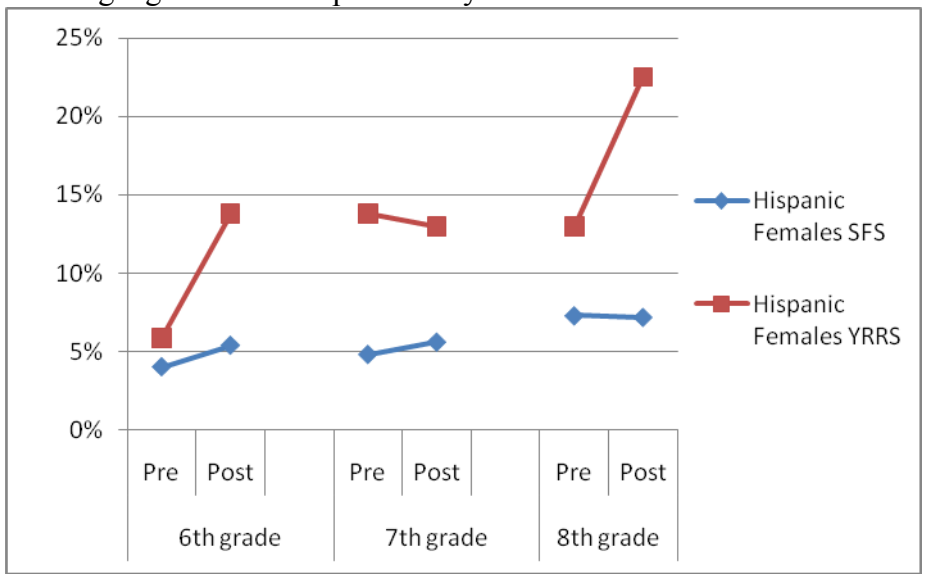


Figure 5: Percent of 6th-8th grade Hispanic males who report using smokeless tobacco in the past 30 days

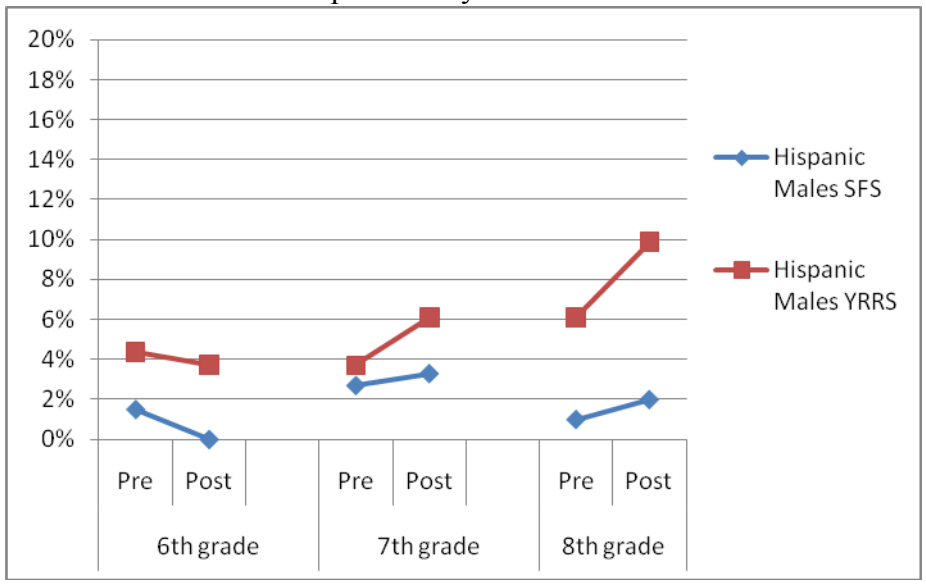


Figure 6: Percent of 6th-8th grade Hispanic females who report using smokeless tobacco in the past 30 days

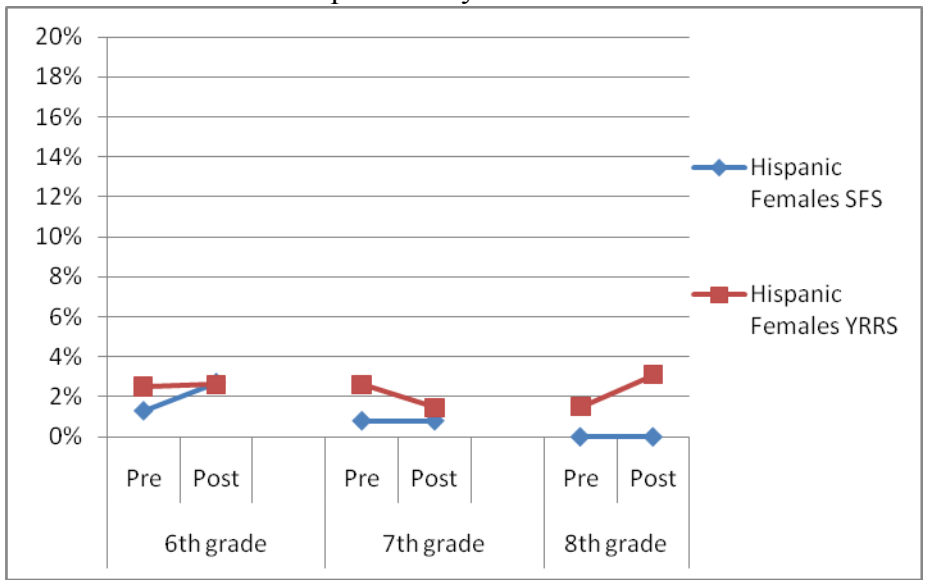


Figure 7: Percent of 6th-8th grade Hispanic males who report intention to try smoking cigarettes soon

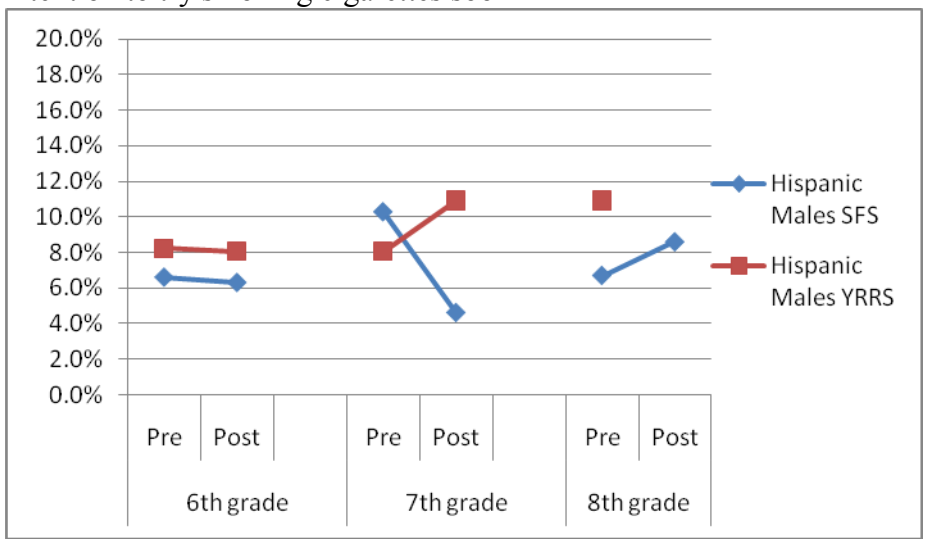


Figure 8: Percent of 6th-8th grade Hispanic females who report intention to try smoking cigarettes soon

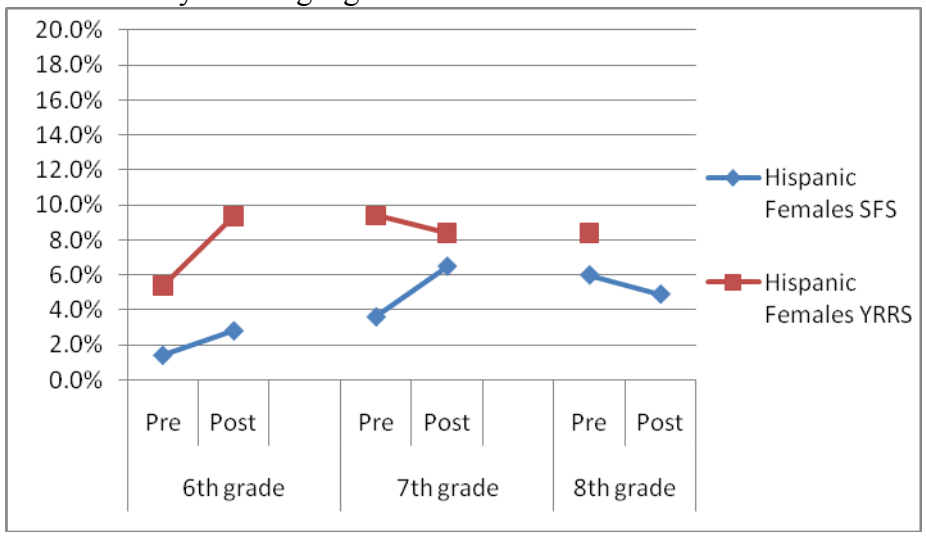


Figure 9: Percentage of 6th-8th grade Hispanic males who report intention to smoke cigarettes in the next year

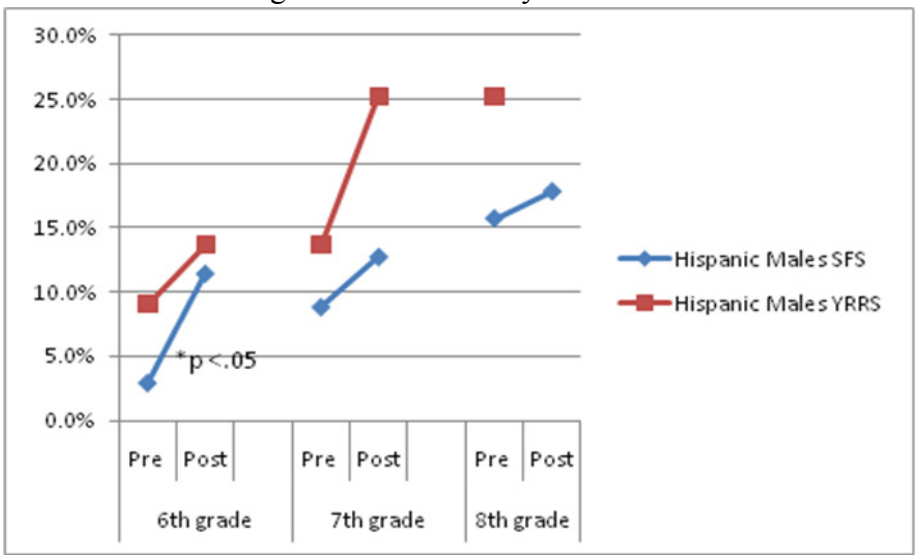


Figure 10: Percentage of 6th-8th grade Hispanic females who report intention to smoke cigarettes in the next year

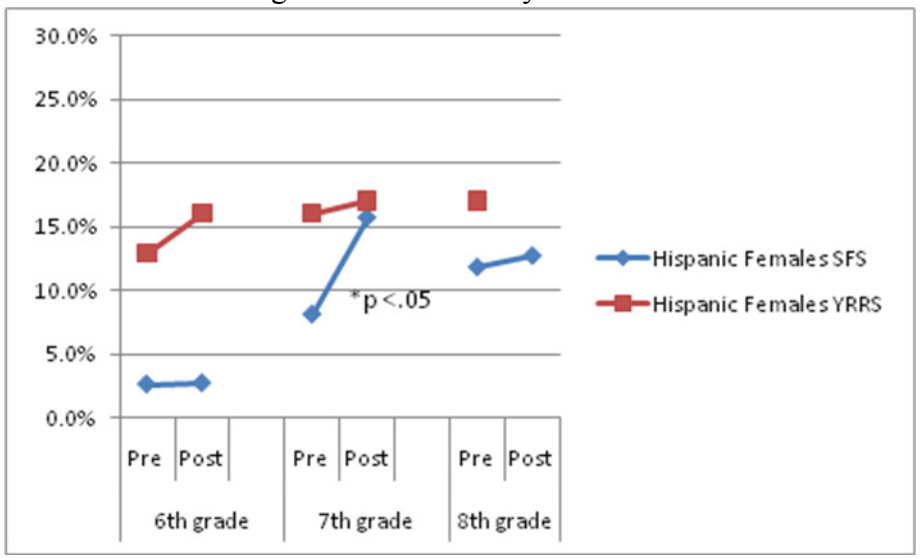


Figure 11: Percentage of 6th-8th grade Hispanic males who report they would smoke if their best friend offered them a cigarette

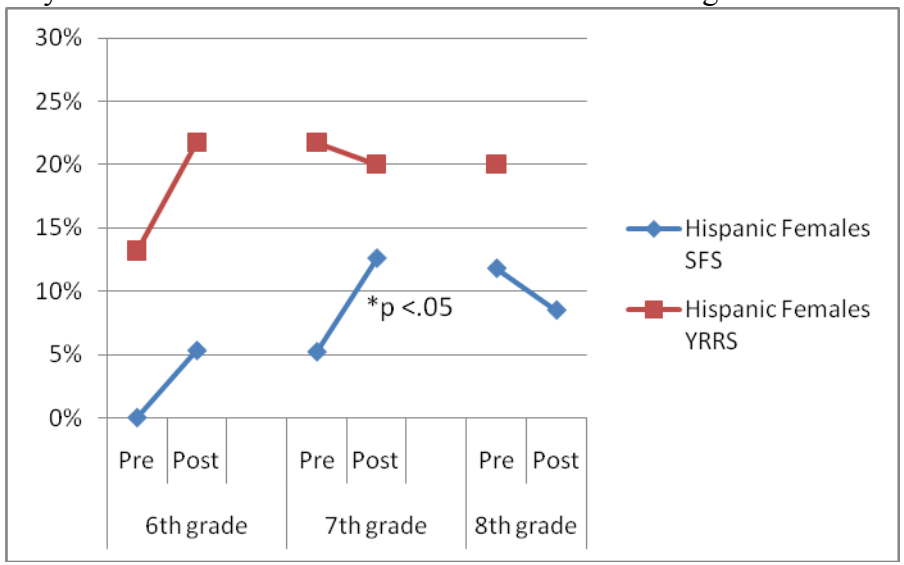


Figure 12: Percentage of 6th-8th grade Hispanic females who report they would smoke if their best friend offered them a cigarette

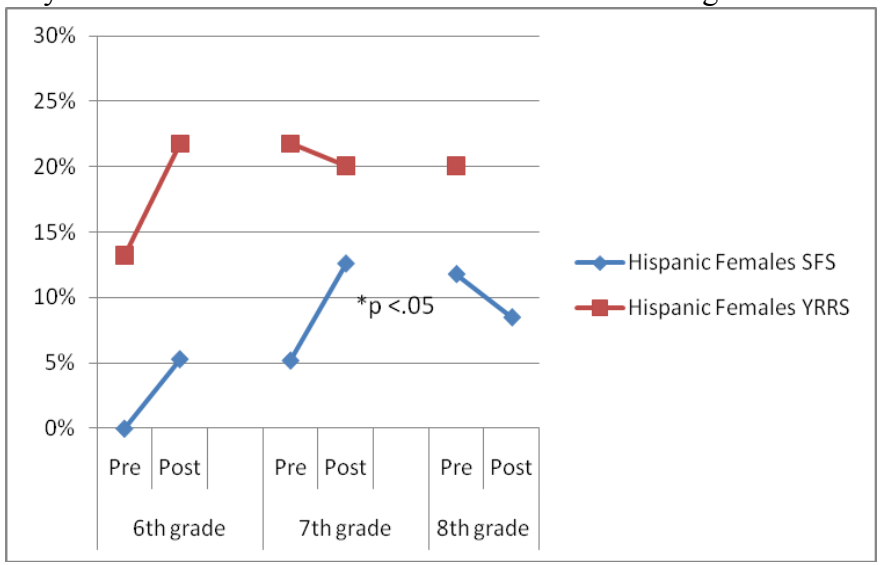


Figure 13: Percentage of 6th-8th grade Hispanic males who report ever drinking alcohol

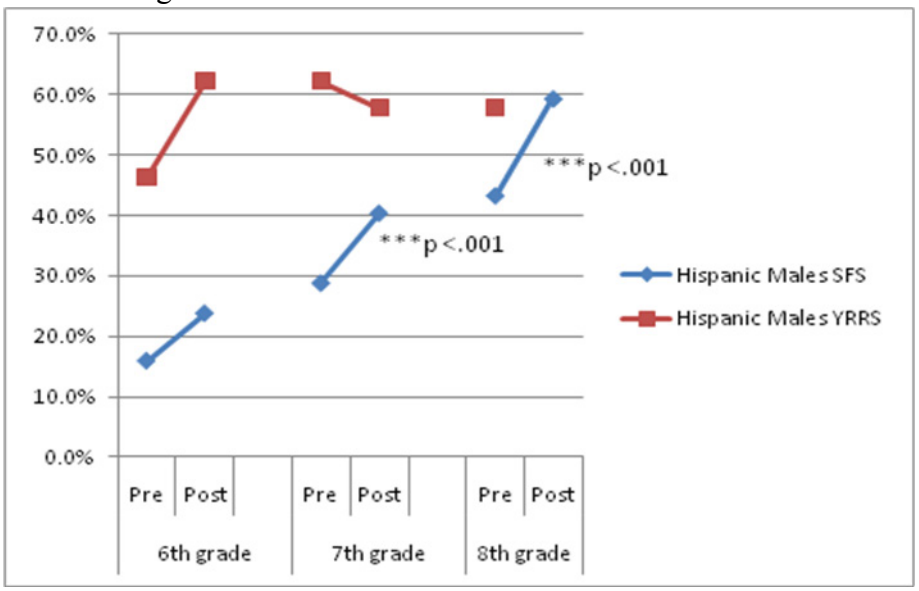


Figure 14: Percentage of 6th-8th grade Hispanic females who report ever drinking alcohol

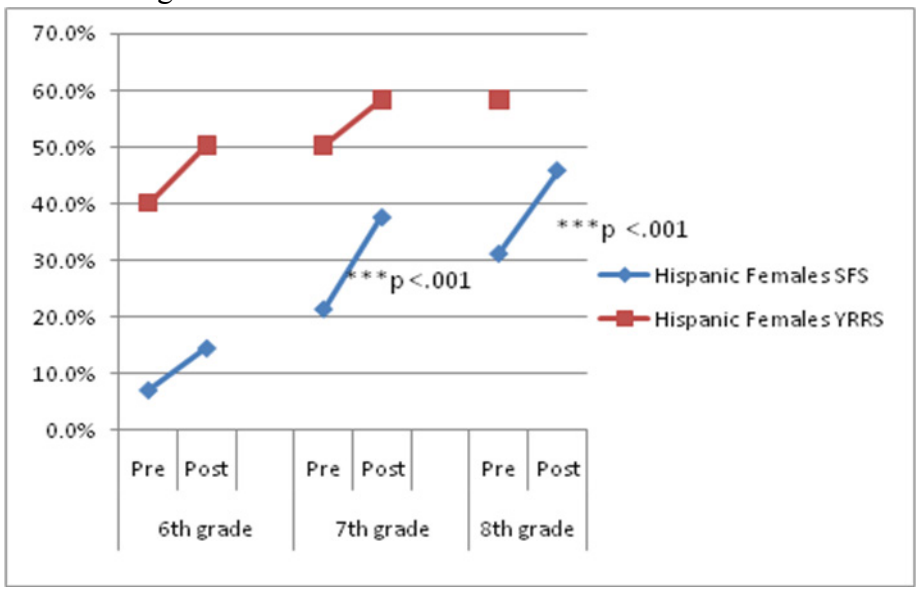


Figure 15: Percentage of 6th-8th grade Hispanic males who report drinking alcohol in the past 30 days

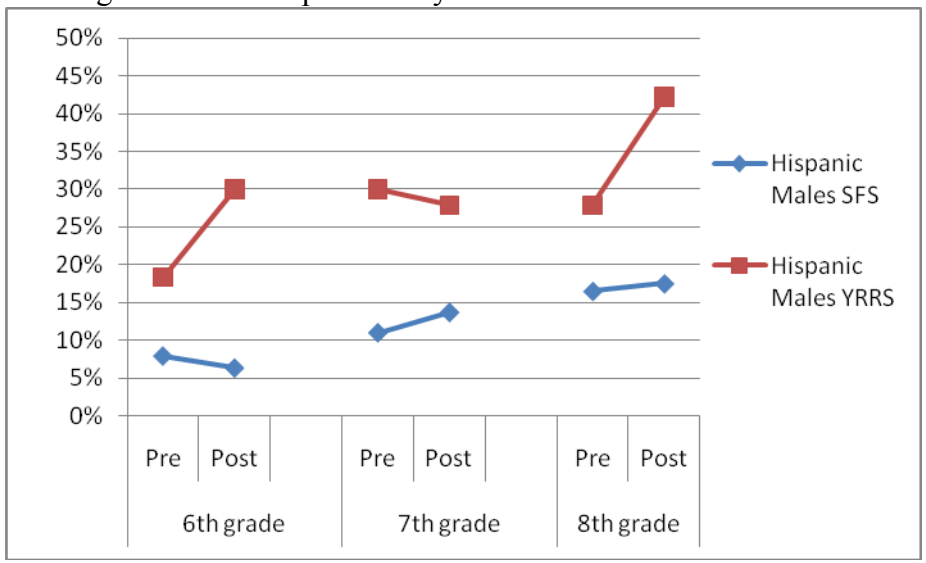


Figure 16: Percentage of 6th-8th grade Hispanic females who report drinking alcohol in the past 30 days

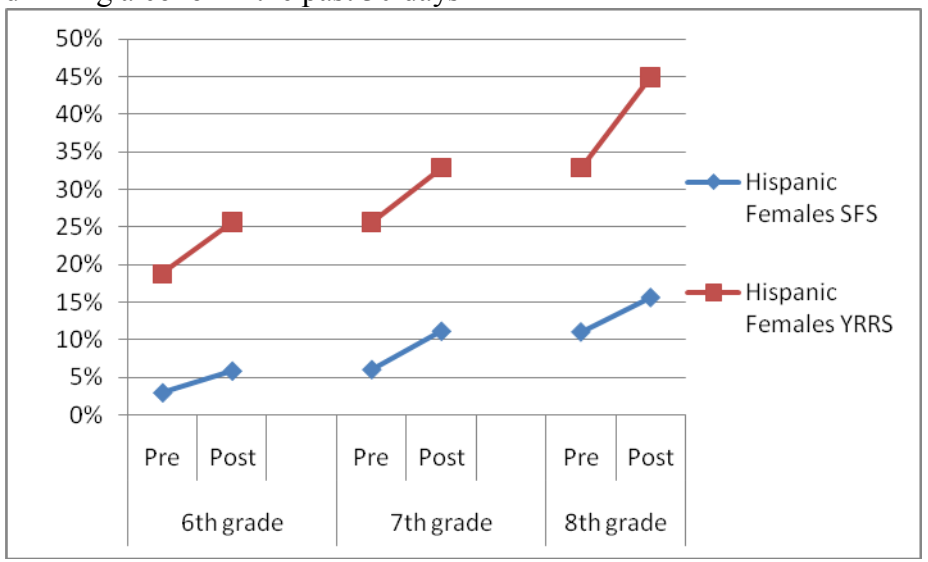


Figure 17: Percentage of 6th-8th grade Hispanic males who report binge drinking in the past 30 days

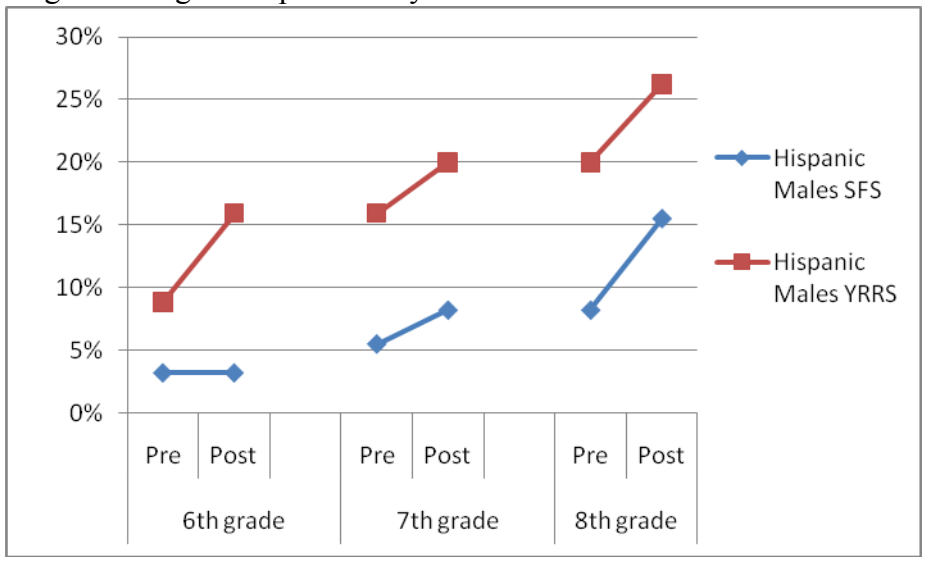


Figure 18: Percentage of 6th-8th grade Hispanic females who report binge drinking in the past 30 days

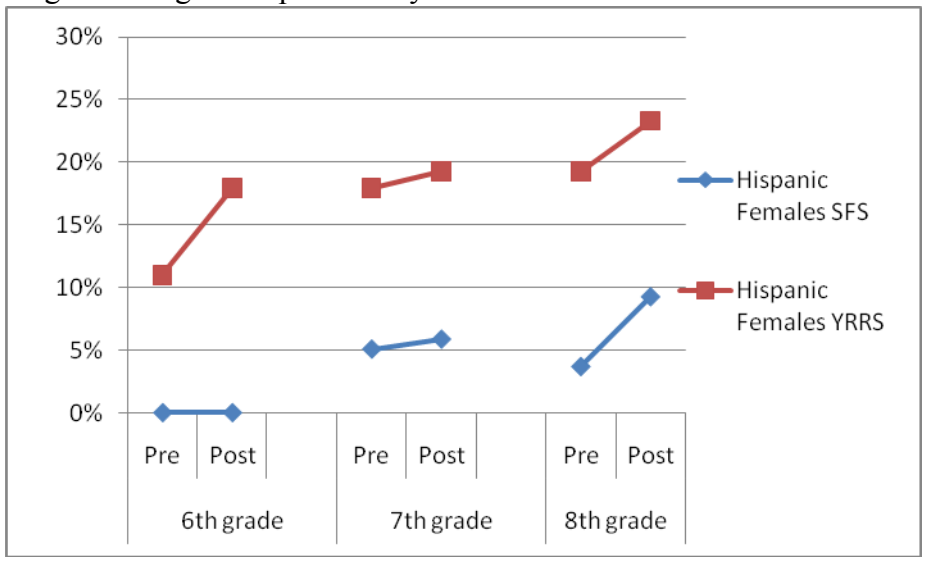


Figure 19: Percentage of 6th-8th grade Hispanic males who reported ever using Marijuana

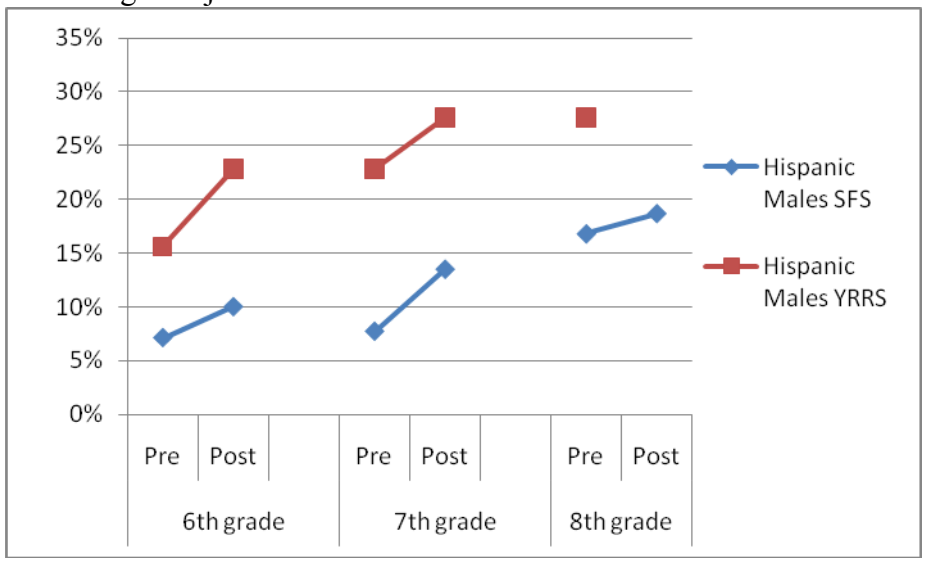


Figure 20: Percentage of 6th-8th grade Hispanic females who reported ever using Marijuana

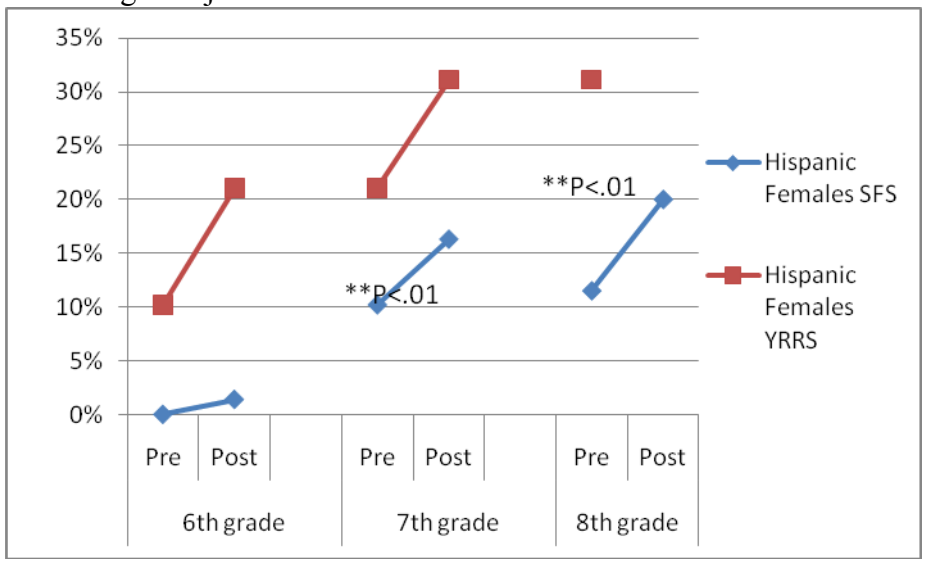


Figure 21: Percentage of 6th-8th grade Hispanic males who report using Marijuana in the past 30 days

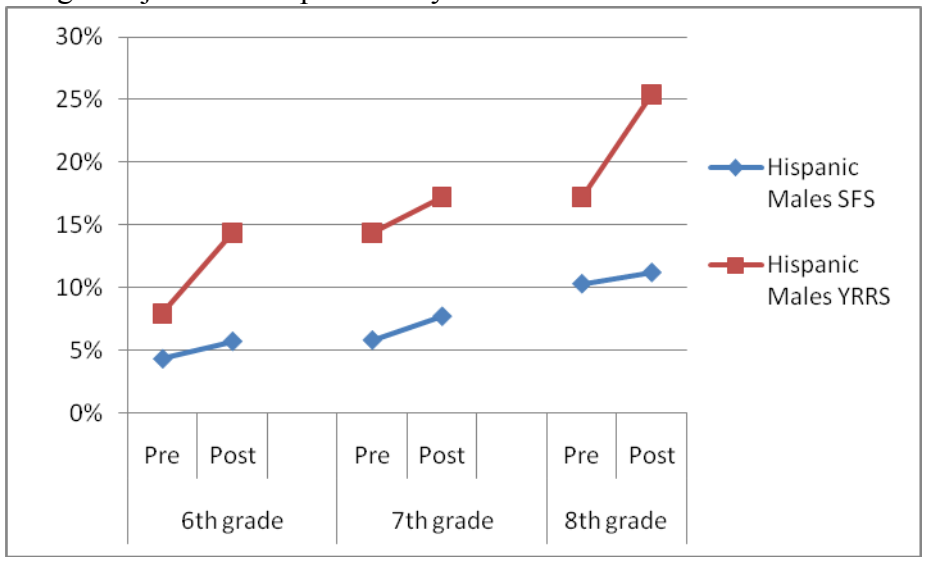


Figure 22: Percentage of 6th-8th grade Hispanic females who report using Marijuana in the past 30 days

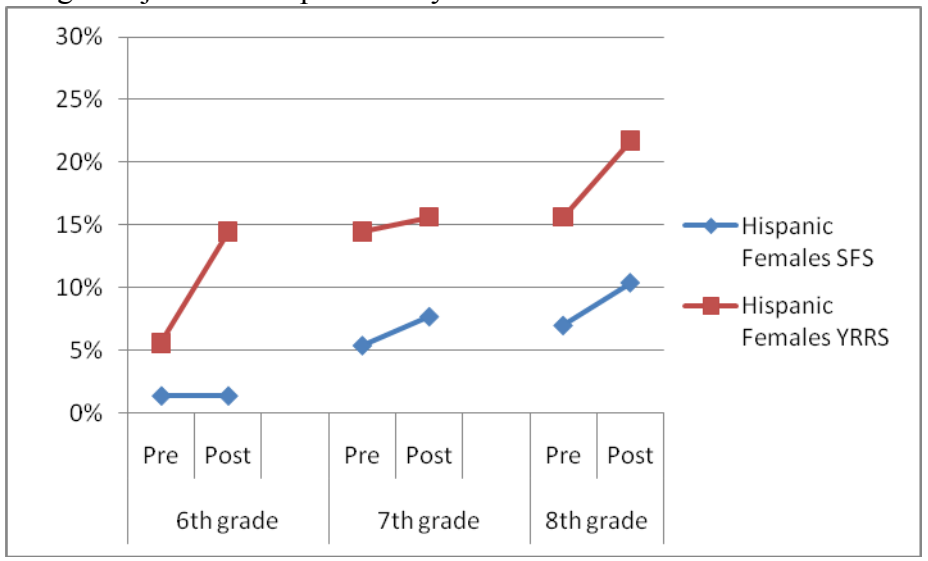


Figure 23: Percentage of 6th-8th grade Hispanic males who report ever using inhalants

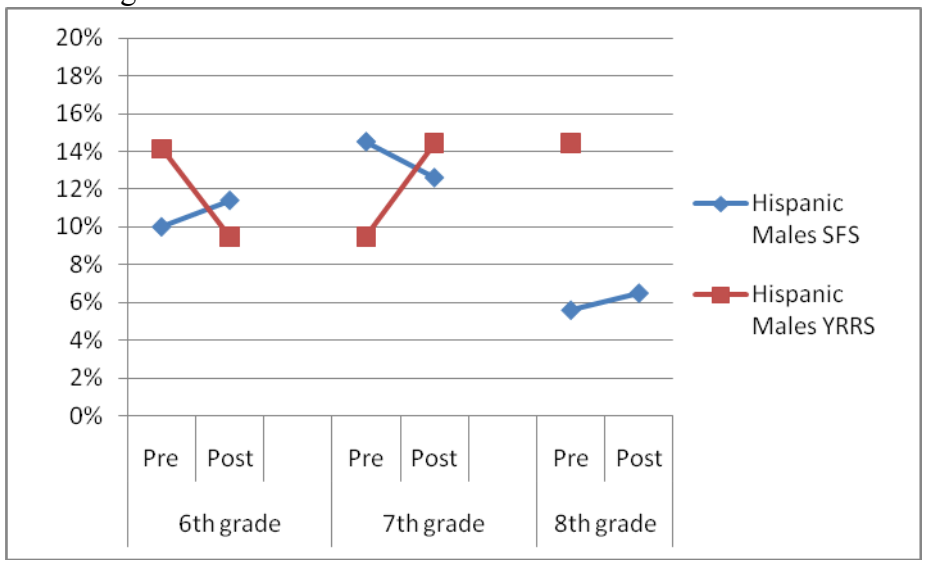


Figure 24: Percentage of 6th-8th grade Hispanic females who report ever using inhalants

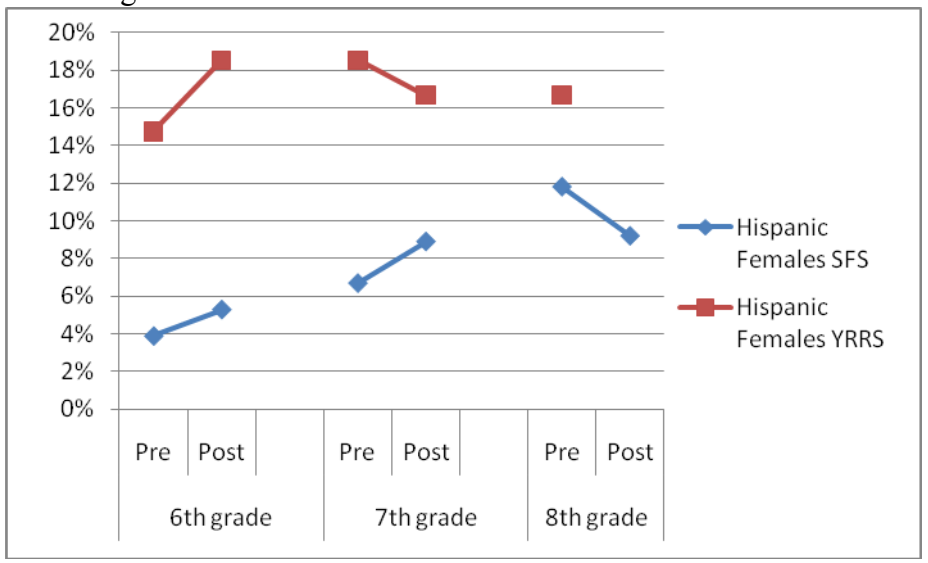


Figure 25: Percentage of 6th-8th grade Hispanic males who report parents think it is wrong or very wrong for him/her to drink alcohol

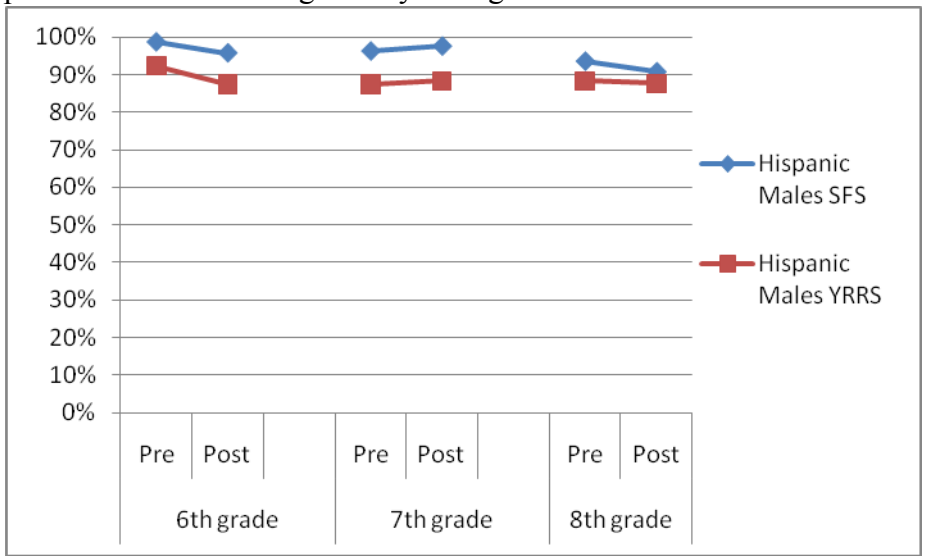


Figure 26: Percentage of 6th-8th grade Hispanic females who report parents think it is wrong or very wrong for him/her to drink alcohol

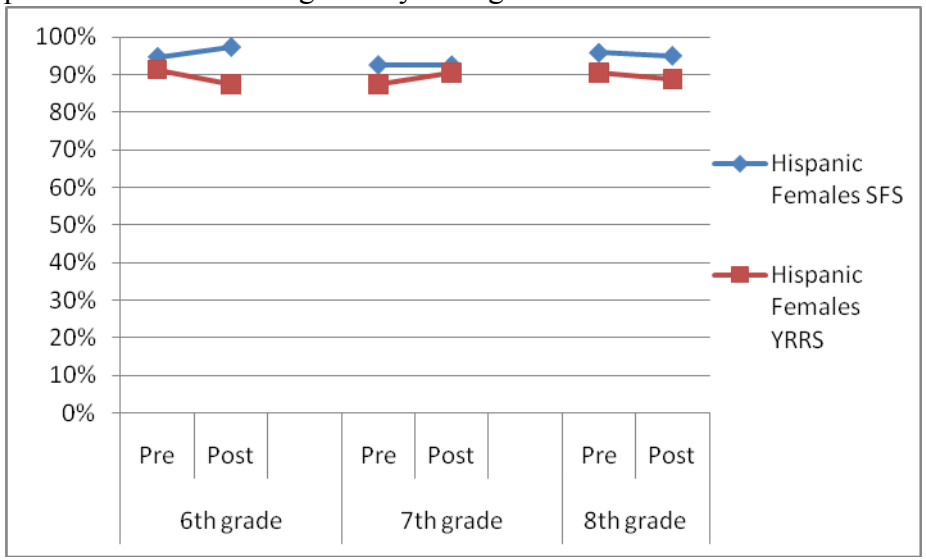


Figure 27: Percentage of 6th-8th grade Hispanic males who report it is wrong or very wrong for someone his age to drink alcohol

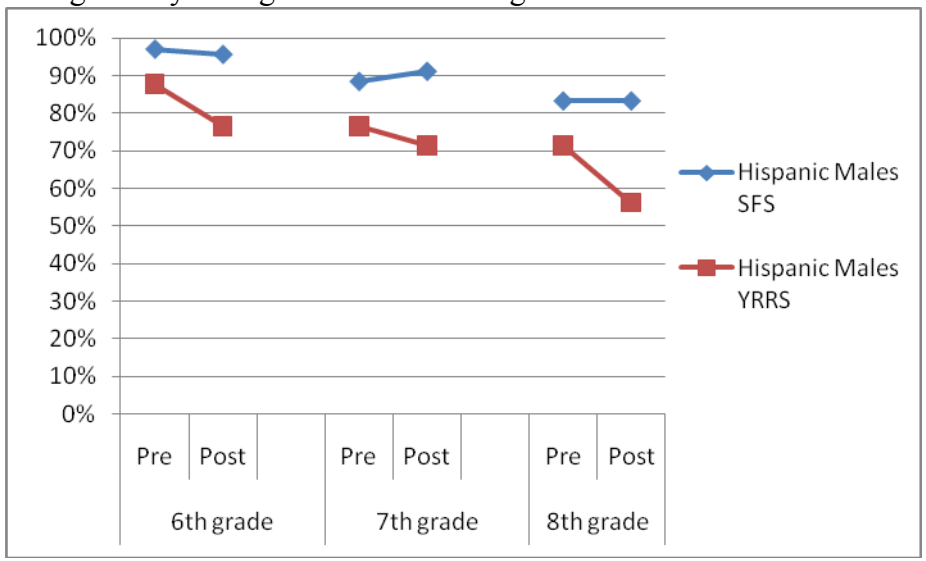
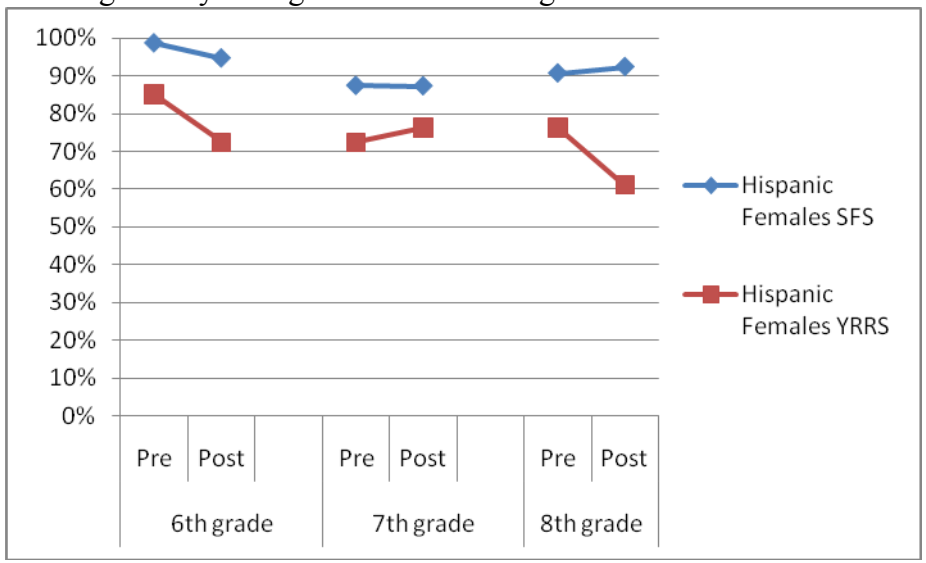


Figure 28: Percentage of 6th-8th grade Hispanic females who report it is wrong or very wrong for someone his age to drink alcohol



Appendix E4
SFS Middle School: Native American Analysis Results

2009 Demographics for Middle School Native American SFS Program Participants

Mean Age for Middle School Native American SFS Program Participants: μ= 12.42 sd=1.170

Table 1: Demographics for Middle School Native American SFS Program Participants (N=578)

Demographic	N	% SFS Program Participants
Grade		
4th grade	16	2.8%
5th grade	70	12.1%
6th grade	111	19.2%
7th grade	268	46.4%
8th grade	93	16.1%
9th grade	20	3.5%
Biological Sex		
Male	281	48.8%
Female	295	51.2%
Language Other than English Spoken Most Often[a]		
Yes	366	64.4%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

2009 Past 30-day Substance Use Rates for Middle School Native American SFS Program Participants

Tables 2-3 capture the percentage of Middle School Native American SFS Program Participants self-reporting past 30-day substance use at pre-test and post-test along with tests of significance.

Table 2: Past 30-day ATOD use[a] differences from pre-test to post-test for middle school Native American SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Cigarettes (n=528)	12.5 %	12.5%	0.026*
Chewing Tobacco (n=574)	4.7%	4.9%	1.000
Alcohol (n=530)	10.6%	8.3%	0.760
Marijuana (n=549)	13.2%	14.8%	0.003
Binge Drinking (n=528)	6.4%	5.2%	1.000

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Past 30-day prescription drug use, differences from pre-test to post-test for middle school Native American SFS program participants

Substance	% Pre-test	% Post-test	McNemar test
Any prescription medication not prescribed (n=570)	4.7%	4.3%	0.868
Any cough medication not prescribed (n=564)	7.9%	8.4%	0.903
Any prescription pain pills not prescribed (n=567)	4.2%	3.7%	0.700
Any Ritalin, Adderal, or Prozac not prescribed (n=565)	2.3%	1.4%	0.359
Any pres sleep aids or tranquilizers not prescribed (n=565)	3.2%	1.9%	0.248
Any other medications not prescribed (n=562)	6.3%	6.0%	0.892

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test

Scale scores and tests of significance for Middle School Native American SFS Program Participants are provided below for the behavioral outcomes of interest.

Table 4: Sum scale scores, significance tests and reliability statistics for middle school Native American SFS program participants

Sub-Scale	Range	Pre-test Sum	Cron-bach's ∞	Post-test Sum	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n=555)	5-20	14.20	0.928	14.58	0.927	-1.454	↑ Is better
Intentions to Smoke (n=426)	2-9	2.81	0.092	2.91	0.083	-1.397	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 5: Attitudes toward alcohol use [a] for middle school Native American SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=578)	3.80	3.83	-1.200	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=575)	3.62	3.56	1.582	↑ Is better

[a] Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

2009 GLM Analysis on Measures for Middle School Native American Participants

Table 6: Examining the effect of time on post-test measure mean scores controlling for pre-test estimates (n=487)

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
	Min	Max					
Perceived Risk of Harm of ATOD Use	1-5		2.84	2.90	1.195	0.002	↑ Is better
Intentions to Smoke	0-3		1.18	1.21	0.761	0.001	↓ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Table 7: Examining the effect of post-test substance use mean scores controlling for pre-test estimates (n=487)

Substance	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Out-come
Cigarettes	0.126	0.118	0.222	0.000	↓ Is better
Chewing Tobacco	0.048	0.049	0.037	0.000	↓ Is better
Alcohol	0.106	0.082	2.874	0.005	↓ Is better
Marijuana	0.064	0.053	1.000	0.002	↓ Is better
Binge Drinking	0.135	0.150	0.941	0.002	↓ Is better
Any Prescription Medication Not Prescribed	0.05	0.04	0.470	0.001	↓ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p≤.05, **p≤.01, ***p≤.001.

Appendix E5
SFS High School: Total Sample Analysis Results

2009 Demographics for High School SFS Program Participants

Mean Age for High School SFS Program Participants: μ=15.64 sd=1.249

Table 1: Demographics for high school SFS program participants at pre-test (N=815)

Demographic	N	% SFS Program Participants
Grade		
Not in school	3	<1.0%
8th grade	3	<1.0%
9th grade	423	52.0%
10th grade	138	17.0%
11th grade	141	17.3%
12th grade	105	12.9%
Biological Sex		
Male	396	48.9%
Female	413	51.1%
Race/Ethnicity		
White	119	14.7%
Hispanic	541	67.0%
Native American	103	12.7%
Other	45	5.6%
Language Other than English Spoken Most Often[a]		
Yes	377	46.4%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

2009 Past 30-day Substance Use Rates for High School SFS Program Participants

Tables 2-4 capture the percentage of High School SFS Program Participants self-reporting past 30-day substance use and frequency of substance use at pre-test and post-test along with tests of significance.

Table 2: Past 30-day ATOD use[a] differences from pre-test to post-test for high school SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Cigarettes (n=809)	20.7%	19.6%	0.503
Chewing Tobacco (n= 811)	4.8%	6.5%	0.082
Alcohol (n=811)	36.7%	32.8%	0.023*
Marijuana (n=810)	25.2%	25.9%	0.685
Binge Drinking (n=811)	23.6%	19.8%	0.019*
Any Prescription Medication Not Prescribed (n=802)	9.5%	9.1%	0.848

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Frequency of ATOD use[a], differences from pre-test to post-test for high school SFS program participants

Substance	Pre-test Mean	Post-test Mean	t-value
Marijuana (n=810)	0.55	0.54	0.826
Cocaine (n=809)	0.06	0.07	-0.845
Inhalants (n=808)	0.09	0.06	1.821
Heroin (n=813)	0.04	0.05	-0.508
Methamphetamines (n=811)	0.05	0.03	0.941
Ecstasy (n=811)	0.05	0.05	-0.135

a 0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
*p≤.05, **p≤.01, ***p≤.001.

Table 4: Past 30-day prescription drug use, differences from pre-test to post-test for high school SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Any prescription medication not prescribed (n=802)	9.5%	9.1%	0.848
Any cough medication not prescribed (n=785)	18.9%	13.3%	0.001***
Any prescription pain pills not prescribed (n=784)	7.2%	6.7%	0.653
Any Ritalin, Adderal, or Prozac not prescribed (n=779)	2.4%	2.8%	0.860
Any prescription sleep aids or tranquilizers not prescribed (n=781)	3.6%	3.0%	0.451
Any other medications not prescribed (n=784)	8.4%	6.8%	0.146

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test

Scale scores and tests of significance for SFS Program Participants are provided below for the behavioral outcomes of interest.

Table 5: Mean scale scores, significance tests and reliability statistics for high school SFS program participants

Sub-Scale	Range	Pre-test Mean	Cron-bach's ∞	Post-test Mean	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n= 767)	5-20	2.88	0.866	2.93	0.887	-1.767	↑ Is better
Peer ATOD Use (n=800)	0-12	1.04	0.850	0.91	0.845	3.764***	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 6: Attitudes toward alcohol use [a] for high school SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=805)	3.43	3.42	0.300	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=804)	3.03	3.09	-1.562	↑ Is better

a Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Table 7: Impaired driving measures[a] for high school SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Rode with Someone who had been Drinking (n= 808)	0.59	0.49	2.745**	↓ Is better
Drove after Drinking (n=808)	0.16	0.12	2.116*	↓ Is better

a One item only; 0=0 times, 1=time, 2=2 or 3 times, 3=4 or 5 times, 4=6 or more times.
*p≤.05, **p≤.01, ***p≤.001.

2009 GLM Analysis on Measures

Table 8: Examining the effect of the risk of harm post-test measures mean scores controlling for pre-test estimates (n=736)

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
	Min	Max					
Risk of Harm	1-5		2.89	2.95	3.979*	0.005	🡻 Is better
Intentions to Smoke	0-3		1.06	0.92	14.674	0.020	🡻 Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 9: Examining the effect of post-test substance use means scores controlling for pre-test estimates (n=736)

Substance	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Cigarettes	0.21	0.20	0.368	0.001	🡻 Is better
Chewing Tobacco	0.05	0.06	2.086	0.003	🡻 Is better
Alcohol	0.37	0.32	5.662	0.008	🡻 Is better
Marijuana	0.25	0.26	0.352	0.000	🡻 Is better
Binge Drinking	0.23	0.19	6.679	0.009	🡻 Is better
Any Prescription Medication Not Prescribed	0.10	0.09	0.247	0.000	🡻 Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p ≤ .05, **p ≤ .01, ***p ≤ .001.

2009 Regression Analysis on Measures

Comparisons were done using linear regression techniques to get measures of effect size. The β for the pre-test substance use measure essentially reflects the effect size of time with respect to use.

Table 10: Examining the effect of the pre-test risk of harm measure on the post-test risk of harm measure controlling for demographic characteristics

Variables	β	95% CI
Age	.013	-.032 – .050
Biological Sex		
Male	*Referent*	
Female	.060	-.001 – .205
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	-.032	-.209 – .093
Native American	-.104**	-.477 – -.068
Other	-.072*	-.532 – -.016
Other Language (Yes)	.019	-.076 .139
Risk of Harm Score at Pre-test	.527***	.488 – .615
Adjusted R-Squared: .304		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 11: Examining the effect of the pre-test peer use measure on post-test peer use measure controlling for demographic characteristics

Variables	β	95% CI
Age	.016	-.033 – .056
Biological Sex		
Male	*Referent*	
Female	-.016	-.141 – .082
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.005	-.153 – .175
Native American	.011	-.187 – .250
Other	-.009	-.313 – .238
Other Language (Yes)	-.044	-.199 .036
Peer Use Score at Pre-test	.509***	.416 – .529
Adjusted R-Squared: .257		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 12: Examining the effect of pre-test cigarette use on post-test cigarette use controlling for demographic characteristics

Variables	β	95% CI
Age	.066*	.008 – .131
Biological Sex		
Male	*Referent*	
Female	-.053	-.291 – .013
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	-.022	-.287 – .166
Native American	-.068	-.573 – .029
Other	-.015	-.472 – .301
Other Language (Yes)	.000	-.161 – .160
Cigarette Use at Pre-test	.551***	.513 – .633
Adjusted R-Squared: .315		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 13: Examining the effect of pre-test chewing tobacco use on post-test chewing tobacco use controlling for demographic characteristics

Variables	β	95% CI
Age	.030	-.010 – .039
Biological Sex		
Male	*Referent*	
Female	-.015	-.079 – .043
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	-.031	-.130 – .051
Native American	-.030	-.174 – .067
Other	-.001	-.155 – .149
Other Language (Yes)	.046	-.010 – .119
Chewing Tobacco Use at Pre-test	.675***	.568 – .662
Adjusted R-Squared: .466		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 14: Examining the effect of pre-test marijuana use on post-test marijuana use controlling for demographic characteristics

Variables	β	95% CI
Age	.083**	.021 – .129
Biological Sex		
Male	*Referent*	
Female	-.016	-.170 – .098
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.060	-.056 – .342
Native American	.037	-.139 – .390
Other	.011	-.278 – .388
Other Language (Yes)	-.021	-.187 .094
Marijuana Use at Pre-test	.521***	.444 – .559
Adjusted R-Squared: .276		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 15: Examining the effect of pre-test alcohol use on post-test alcohol use controlling for demographic characteristics

Variables	β	95% CI
Age	.075*	.011 – .100
Biological Sex		
Male	*Referent*	
Female	-.036	-.176 – .045
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.044	-.079 – .249
Native American	.005	-.204 – .232
Other	.051	- .070 – .480
Other Language (Yes)	-.007	-.129 .103
Alcohol Use at Pre-test	.499***	.386 – .493
Adjusted R-Squared: .255		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 16: Examining the effect of pre-test binge drinking on post-test binge drinking controlling for demographic characteristics

Variables	β	95% CI
Age	.068*	.003 – .094
Biological Sex		
Male	*Referent*	
Female	.017	-.082 – .141
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	.038	-.095 – .236
Native American	.008	-.199 – .242
Other	.031	-.160 – .396
Other Language (Yes)	.027	-.070 .165
Binge Drinking at Pre-test	.406***	.275 – .378
Adjusted R-Squared: .171		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 17: Examining the effect of pre-test prescription drug use on post-test prescription drug use controlling for demographic characteristics

Variables	β	95% CI
Age	-.053	-.028 – .004
Biological Sex		
Male	*Referent*	
Female	-.001	-.040 – .039
Race/Ethnicity		
Non-Hispanic White	*Referent*	
Hispanic	-.032	-.078 – .039
Native American	-.033	-.107 – .050
Other	.043	- .044 – .152
Other Language (Yes)	.046	-.015 .068
Prescription Drug Use at Pre-test	.193***	.122 – .259
Adjusted R-Squared: .035		

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Appendix E6
SFS High School: Male/Female Analysis Results

2009 Demographics for High School SFS Program Participants by Biological Sex

Mean Age for High School Male SFS Program Participants: μ=15.74 sd=1.251

Mean Age for High School Female SFS Program Participants: μ=15.55 sd=1.239

Table 1: Demographics for High School SFS Program Participants by Biological Sex

Demographic	% Male (n=421)	% Female (n=388)
Grade		
Not in school	.2%	.5%
8th grade	.5%	.3%
9th grade	51.9%	51.9%
10th grade	17.6%	16.5%
11th grade	17.1%	17.8%
12th grade	12.6%	12.9%
Race/Ethnicity		
White	13.4%	16.4%
Hispanic	65.9%	67.8%
Native American	13.2%	12.5%
Other	7.4%	3.4%
Language Other than English Spoken Most Often[a]	48.7%	44.2%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

2009 Past 30-day Substance Use Rates for High School SFS Program Participants by Biological Sex

Tables 2-3 capture the percentage of High School SFS Program Participants self-reporting past 30-day substance use and frequency of substance use, along with tests of significance, by biological sex.

Table 2: Past 30-day ATOD use[a] differences from pre-test to post-test for high school SFS program participants by biological sex

Substance	Male			Female		
	% Pre-test	% Post-test	McNemar	% Pre-test	% Post-test	McNemar
Cigarettes (n=416, 387)	22.1%	22.5%	0.912	19.1%	16.5%	0.200
Chewing Tobacco (n= 419, 387)	7.9%	10.5%	0.145	1.6%	2.1%	0.727
Alcohol (n=418, 387)	34.4%	31.2%	0.175	39.3%	34.8%	0.096
Marijuana (n=419, 385)	24.5%	26.0%	0.494	26.0%	26.0%	1.000
Binge Drinking (n=418, 387)	21.7%	17.7%	0.094	25.8%	22.2%	0.124
Any Prescription Medication Not Prescribed (n=411, 385)	11.2%	8.7%	0.253	7.7%	9.6%	0.381

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Frequency of ATOD use, differences from pre-test to post-test for high school SFS program participants by biological sex

Substance	Male			Female		
	Pre-test Mean	Post-test Mean	t-value	Pre-test Mean	Post-test Mean	t-value
Marijuana (n=419, 385)	0.55	0.58	-0.510	0.55	0.50	0.883
Cocaine (n=418, 385)	0.05	0.09	-1.244	0.06	0.05	0.689
Inhalants (n=418, 384)	0.08	0.04	1.322	0.10	0.07	1.292
Heroin (n=419, 388)	0.06	0.06	-0.100	0.02	0.02	-0.149
Methamphetamines (n=418, 387)	0.06	0.04	0.671	0.04	0.03	0.714
Ecstasy (n= 418, 387)	0.06	0.08	-0.437	0.04	0.03	0.730

[a] 0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
*p≤.05, **p≤.01, ***p≤.001.

Table 4: Past 30-day prescription drug use, differences from pre-test to post-test for high school SFS program participants by biological sex

Substance	Male			Female		
	% Pre-test	% Post-test	Chi-Square	% Pre-test	% Post-test	Chi-Square
Any prescription medication not prescribed (n=411, 385)	11.2%	8.7%	0.253	7.7%	9.6%	0.381
Any cough medication not prescribed (n=401, 378)	17.1%	10.8%	0.007	20.9%	15.7%	0.029*
Any prescription pain pills not prescribed (n=399, 379)	7.7%	7.2%	0.755	6.8%	6.3%	0.871
Any Ritalin, Adderal, or Prozac not prescribed (n=395, 378)	2.4%	2.2%	0.791	2.3%	3.1%	0.629
Any prescription sleep aids or tranquilizers not prescribed (n=397, 378)	4.1%	3.0%	0.327	3.1%	3.1%	1.000
Any other medications not prescribed (n=399, 380)	8.4%	6.9%	0.440	8.6%	6.5%	0.256

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test by Biological Sex

Scale scores and tests of significance are provided below for the behavioral outcomes of interest for high school SFS Program Participants by biological sex.

Males

Table 5: Mean scale scores, significance tests and reliability statistics for high school male SFS program participants

Sub-Scale	Range	Pre-test Mean	Cron-bach's ∞	Post-test Mean	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n=392)	5-20	2.78	0.869	2.82	0.893	-0.862	↑ Is better
Peer ATOD Use (n=415)	0-12	0.98	0.832	0.86	0.827	2.423*	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 6: Attitudes toward Alcohol Use[a] for High School Male SFS Program Participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=412)	3.41	3.33	1.682	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=412)	3.02	3.04	-0.269	↑ Is better

[a] Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Table 7: Impaired Driving Measures [a] for High School Male SFS Program Participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Rode with Someone who had been Drinking (n=415)	0.59	0.45	2.671	↓ Is better
Drove after Drinking (n=415)	0.17	0.12	1.722	↓ Is better

[a] One item only; 0=0 times, 1=time, 2=2 or 3 times, 3=4 or 5 times, 4=6 or more times.
*p≤.05, **p≤.01, ***p≤.001.

Females

Table 8: Mean scale scores, significance tests and reliability statistics for high school female SFS program participants

Sub-Scale	Range	Pre-test Mean	Cron-bach's ∞	Post-test Mean	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n=370)	5-20	2.99	0.854	3.05	0.871	-1.688	↑ Is better
Peer ATOD Use (n=380)	0-12	1.11	0.870	0.98	0.868	2.913**	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 9: Attitudes toward alcohol use[a] for high school female SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=387)	3.45	3.52	-1.689	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=386)	3.04	3.14	-2.206*	↑ Is better

[a] Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Table 10: Impaired driving measures[a] for high school female SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Rode with Someone who had been Drinking (n=387)	0.59	0.53	1.138	↓ Is better
Drove after Drinking (n=387)	0.15	0.11	1.255	↓ Is better

[a] One item only; 0=0 times, 1=time, 2=2 or 3 times, 3=4 or 5 times, 4=6 or more times.
*p≤.05, **p≤.01, ***p≤.001.

Summary of Results of SFS High School Sample

The figures below show results for all high school students participating in SFS programs. On average, 815 high school students completed the SFS survey. Responses were combined to create an overall average score for each question at pre-test and post-test for each grade. Results are reported by gender.

For males, reports of drinking alcohol in the previous 30 days dropped between 9th and 12th grade, with a leveling to decreasing trend occurring between 11th and 12 grade. Similar results were seen for male report of binge drinking in the past 30 days. In several instances (drinking alcohol in past 30 days, misuse of prescription pain killers, and friends drinking alcohol weekly), females in the SFS program reported lower rates from pre- to post-test each year. This suggests that even though the decreases were not sustained between grades, the SFS program may be influencing short-term behavior change. This assessment is further supported by YRRS data, which reports either maintaining or increasing risk behavior between grades in these instances.

OF NOTE: The small sample size of students completing SFS surveys, particularly in 11th and 12th grades, suggests assessment of reported changes should be made with caution. Because of the small number of responses, changes for a relatively few number of students could result in large effect sizes between pre-test and post-test. This is particularly true in instances where overall report of a behavior is low (such as Methamphetamine use).

Figure 1: Percent of 9th-12th grade males who report smoking cigarettes in the past 30 days

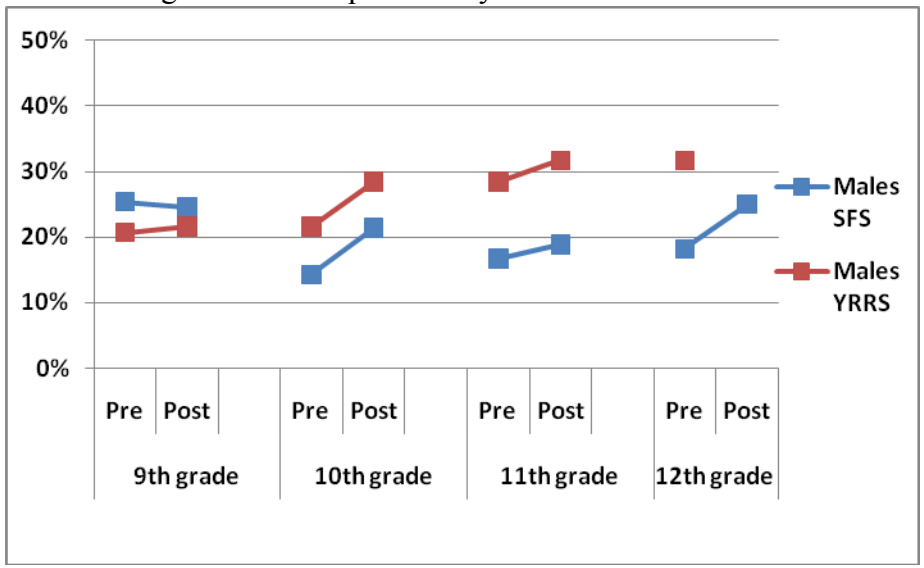


Figure 2: Percent of 9th-12th grade females reporting smoking cigarettes in the past 30 days

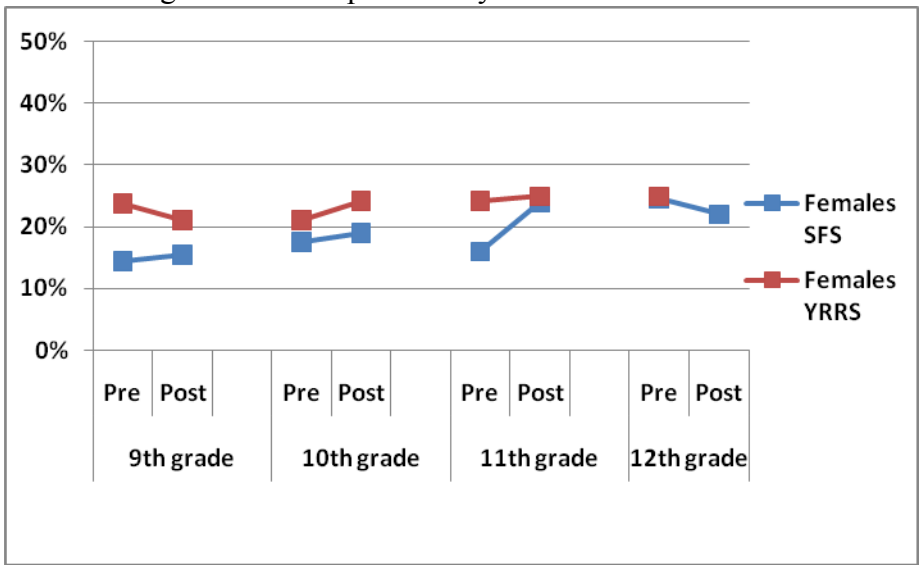


Figure 3: Percent of 9th-12th grade males who report using smokeless tobacco in the past 30 days

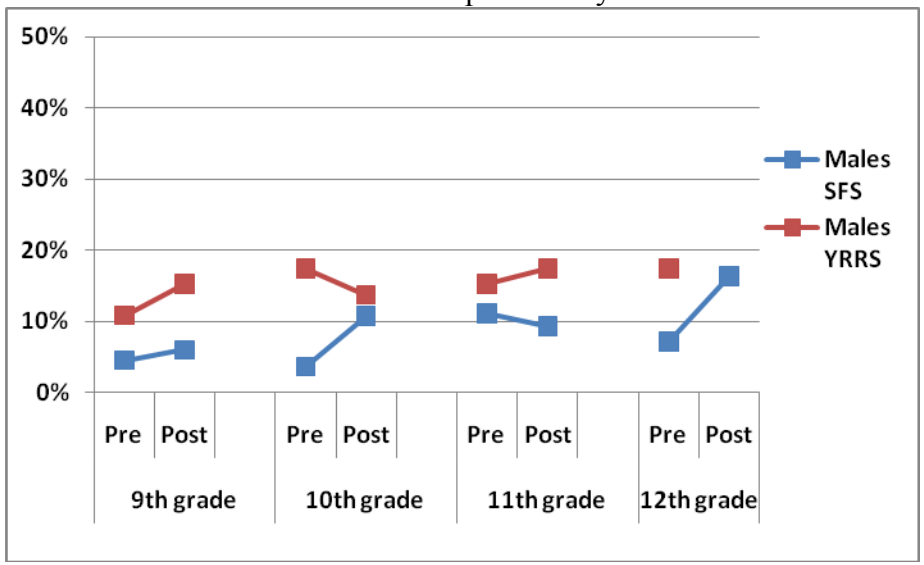


Figure 4: Percent of 9th-12th grade females who report using smokeless tobacco in the past 30 days

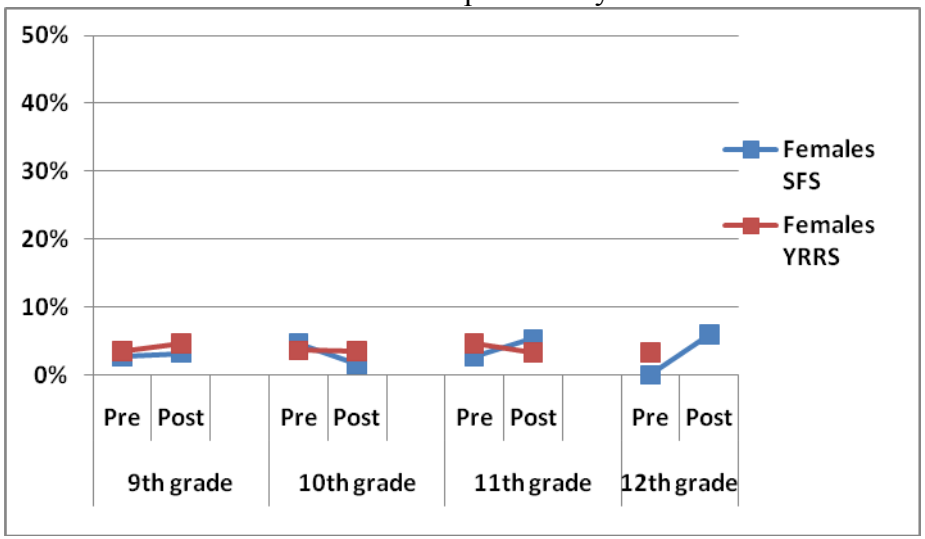


Figure 5: Percent of 9th-12th grade males who report drinking alcohol in the past 30 days

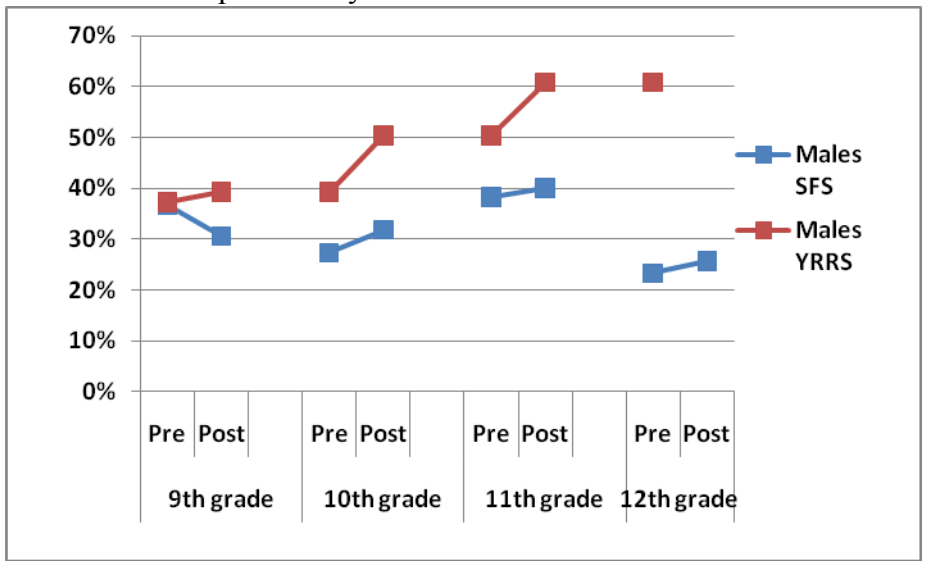


Figure 6: Percent of 9th-12th grade females who report drinking alcohol in the past 30 days

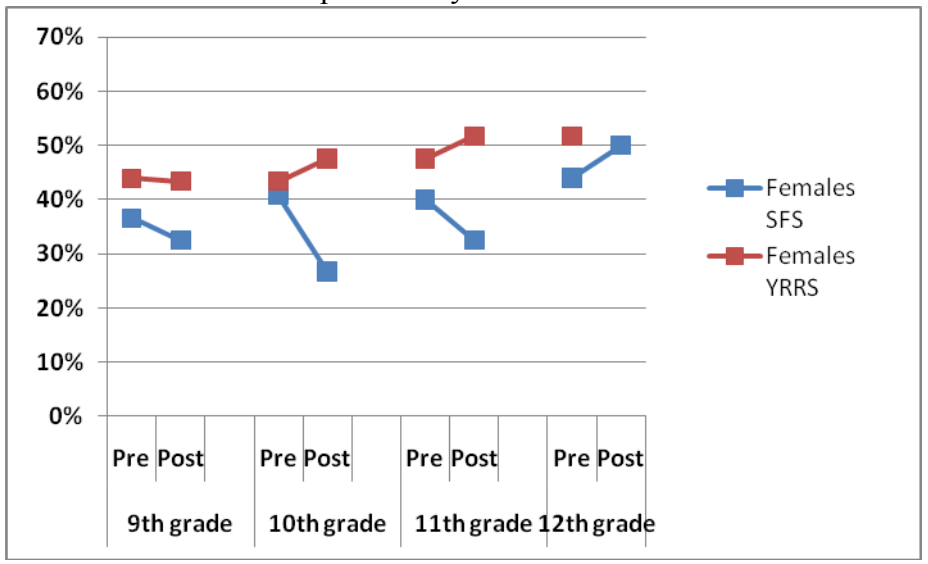


Figure 7: Percent of 9th-12th grade males who reported binge drinking in the past 30 days

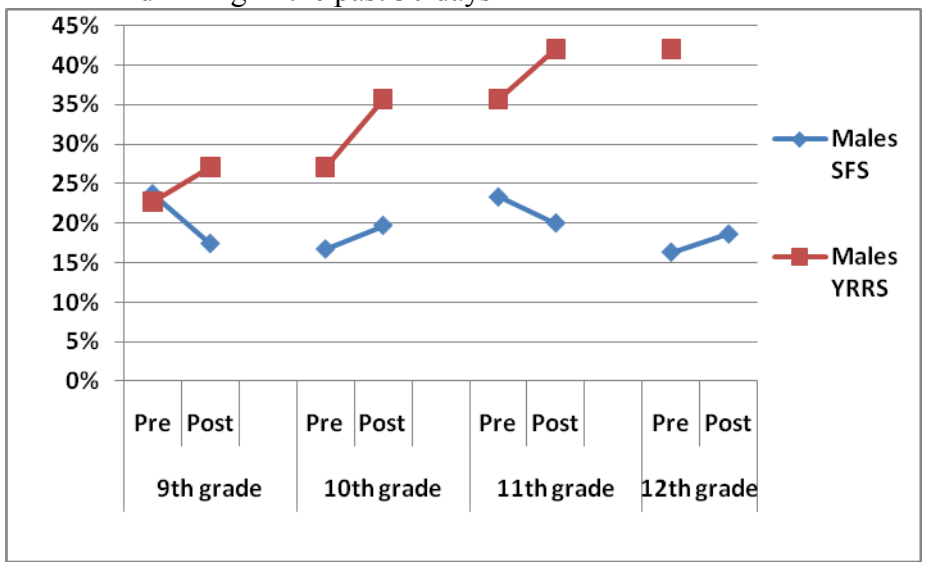


Figure 8: Percent of 9th-12th grade females who reported binge drinking in the past 30 days

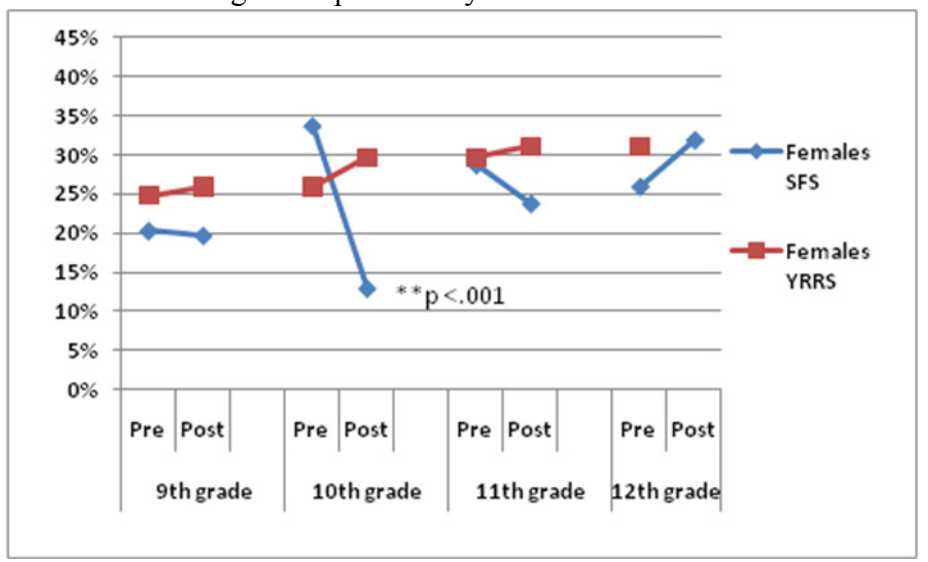


Figure 9: Percent of 9th-12th grade males reporting marijuana use in the past 30 days

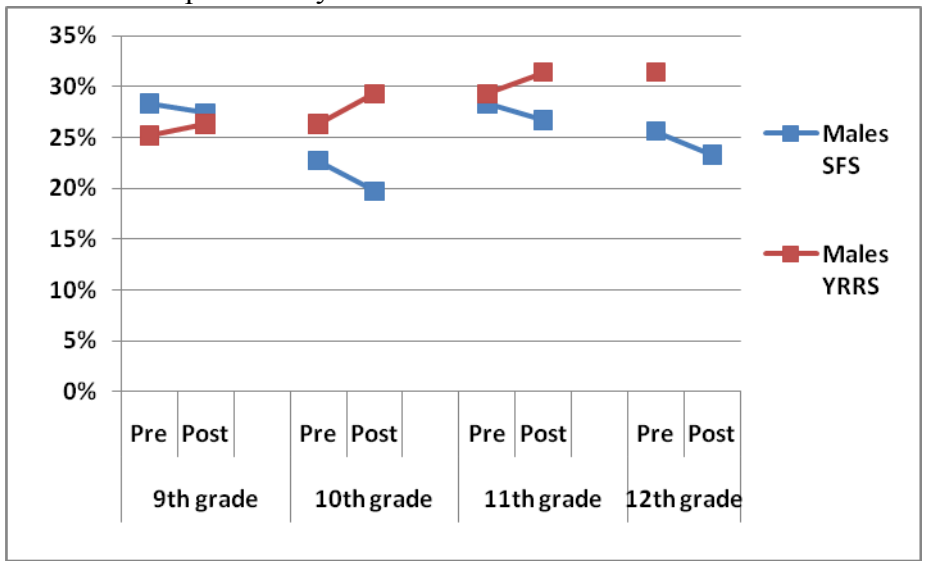


Figure 10: Percent of 9th-12th grade females reporting marijuana use in the past 30 days

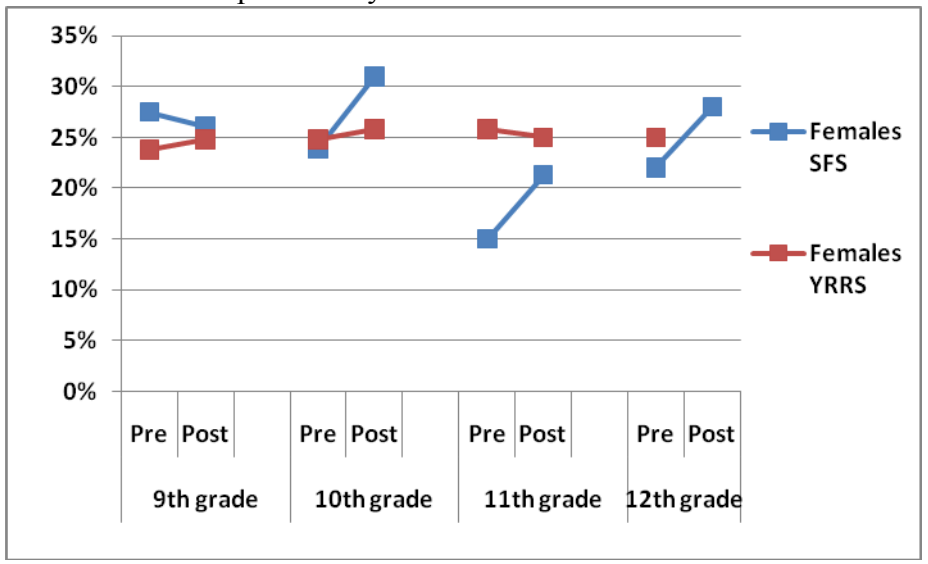


Figure 11: Percent of 9th-12th grade males reporting cocaine use in the past 30 days

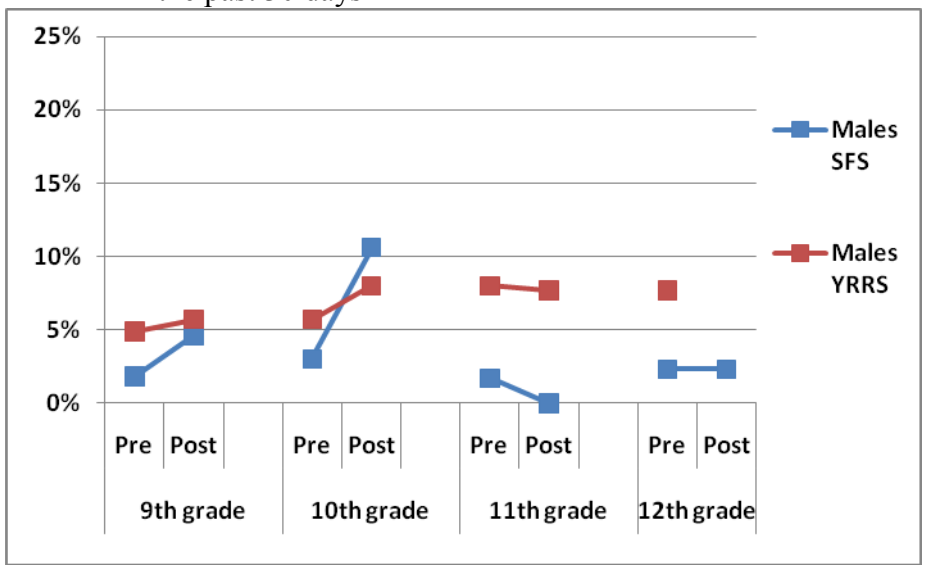


Figure 12: Percent of 9th-12th grade females reporting cocaine use in the past 30 days

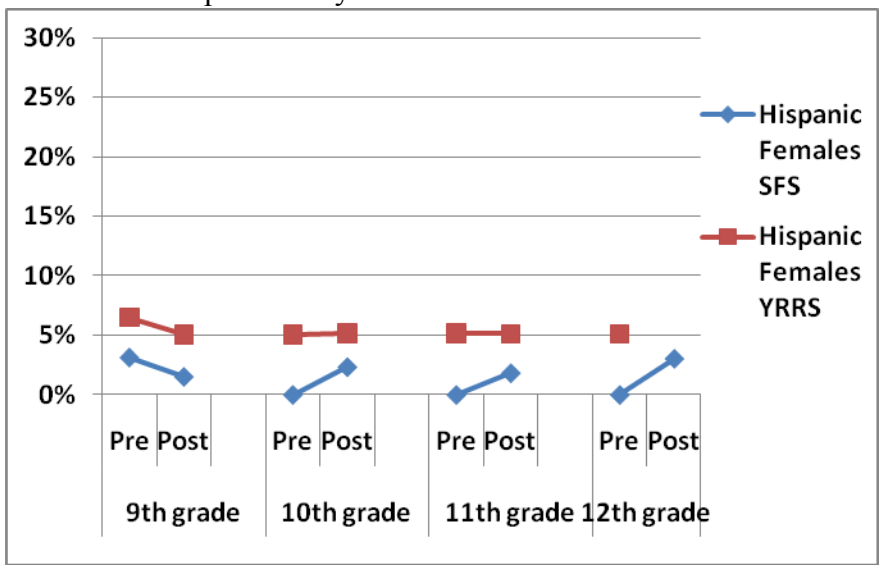


Figure 13: Percent of 9th-12th grade males reporting sniffing glue in the past 30 days

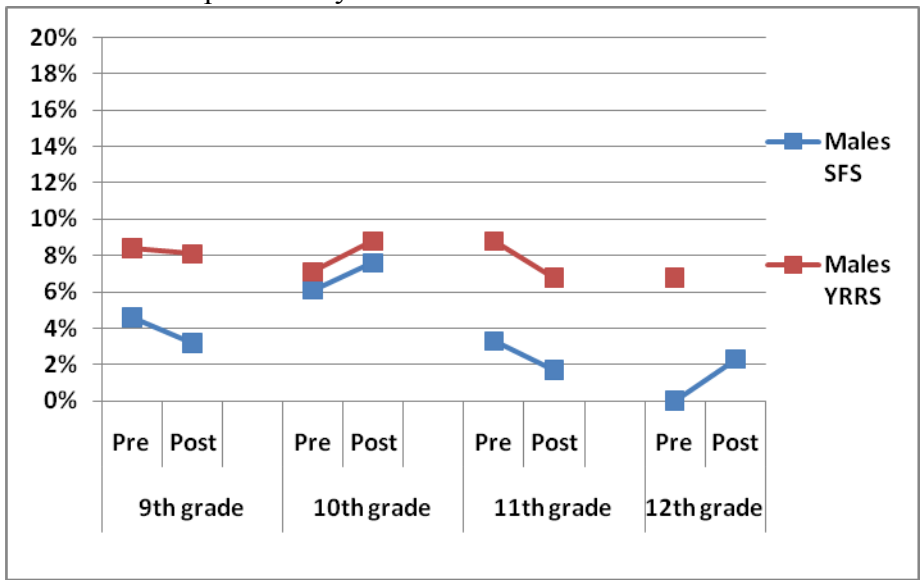


Figure 14: Percent of 9th-12th grade females reporting sniffing glue in the past 30 days

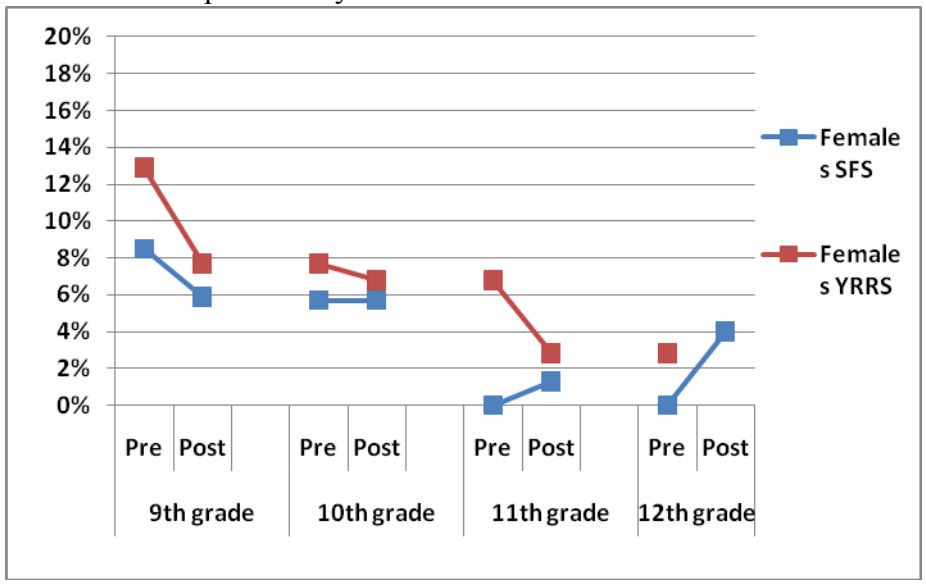


Figure 15: Percent of 9th-12th grade males reporting heroin in the past 30 days

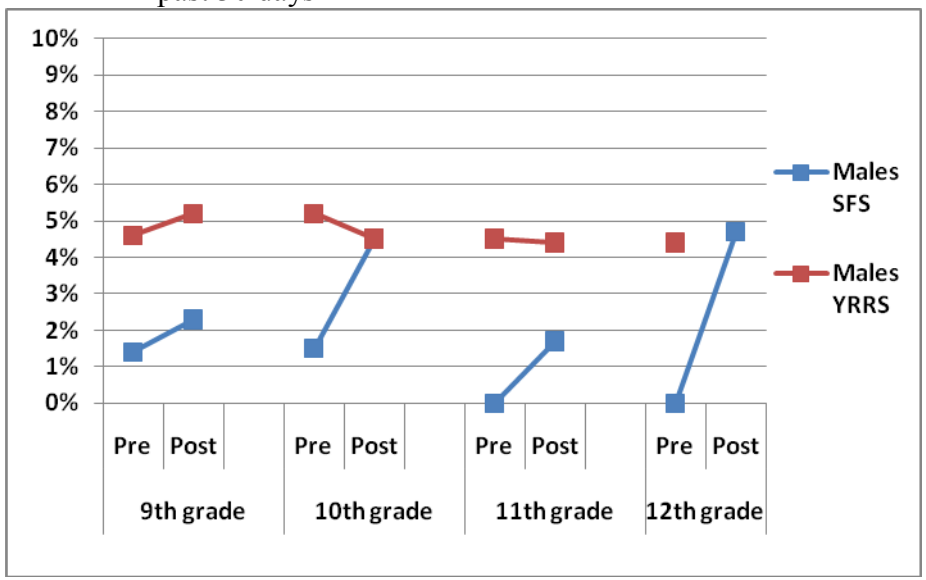


Figure 16: Percent of 9th-12th grade females reporting heroin use in the past 30 days

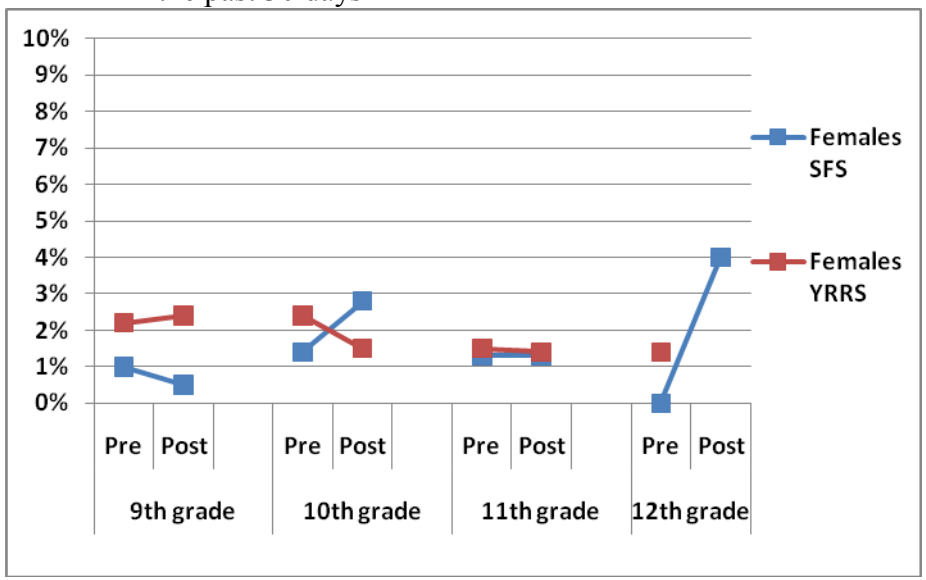


Figure 17: Percent of 9th-12th grade males reporting Methamphetamine use in the past 30 days

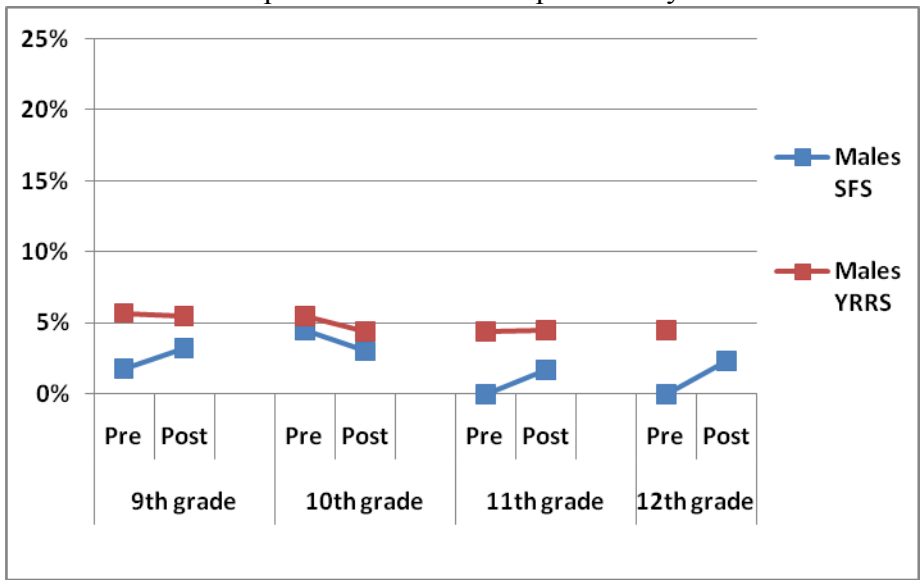


Figure 18: Percent of 9th-12th grade females reporting Methamphetamine use in the past 30 days

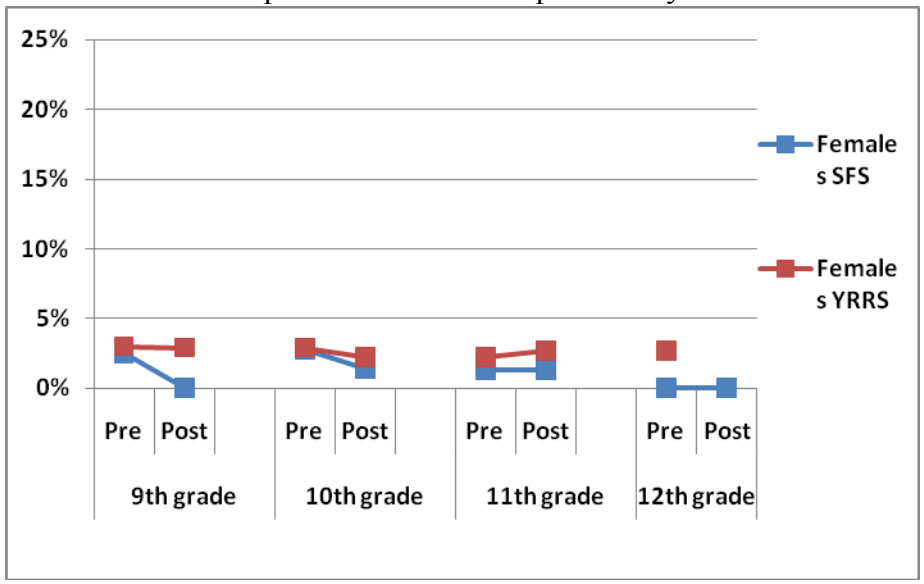


Figure 19: Percent of 9th-12th grade males reporting Ecstasy use in the past 30 days

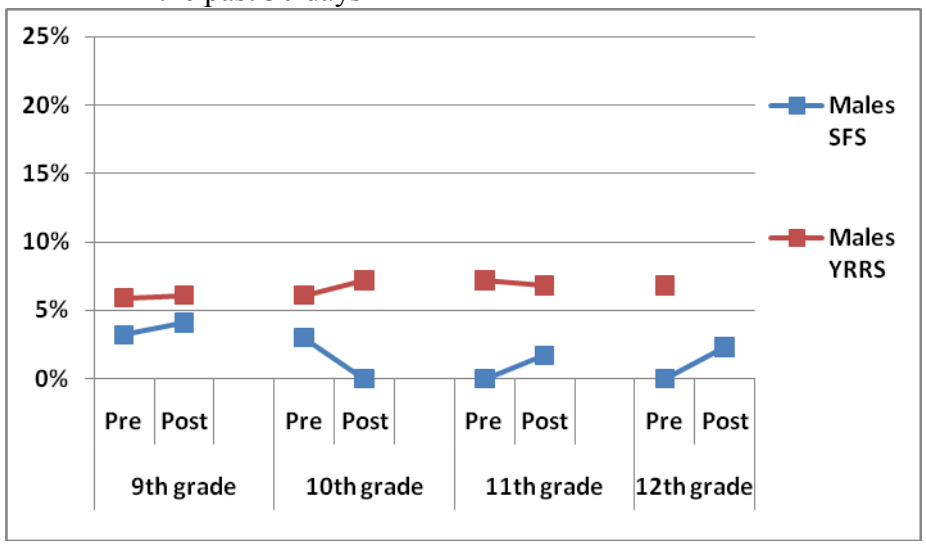


Figure 20: Percent of 9th-12th grade females reporting Ecstasy use in the past 30 days

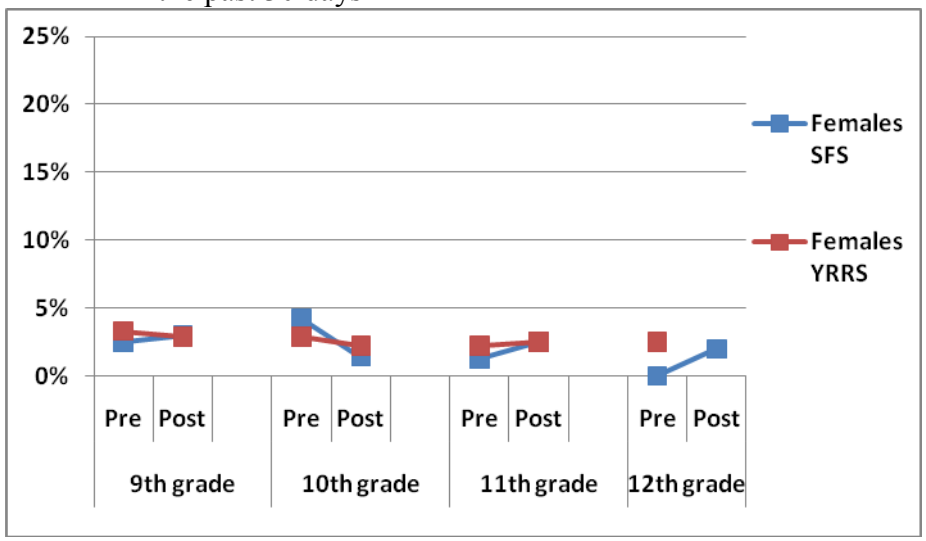


Figure 21: Percent of 9th-12th grade males reporting misuse of prescription pain killers in the past 30 days

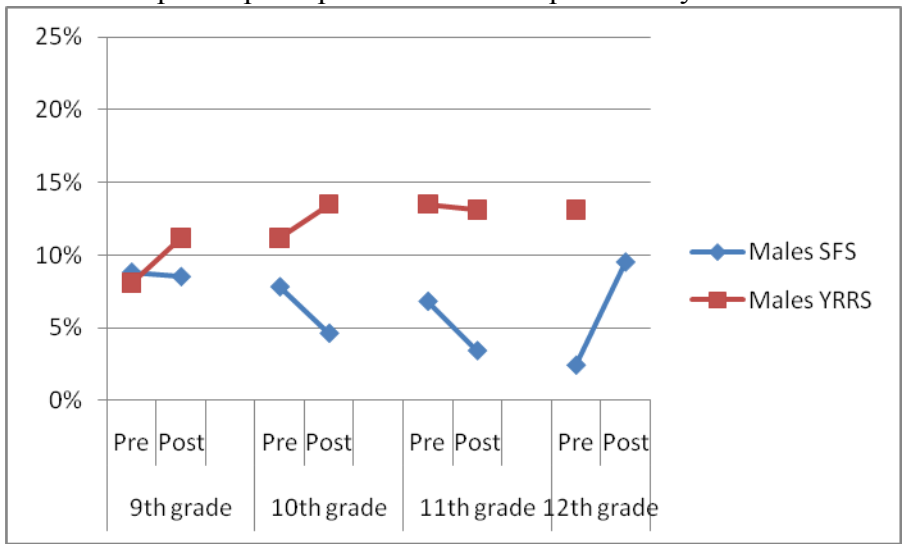


Figure 22: Percent of 9th-12th grade females reporting misuse of prescription pain killers in the past 30 days

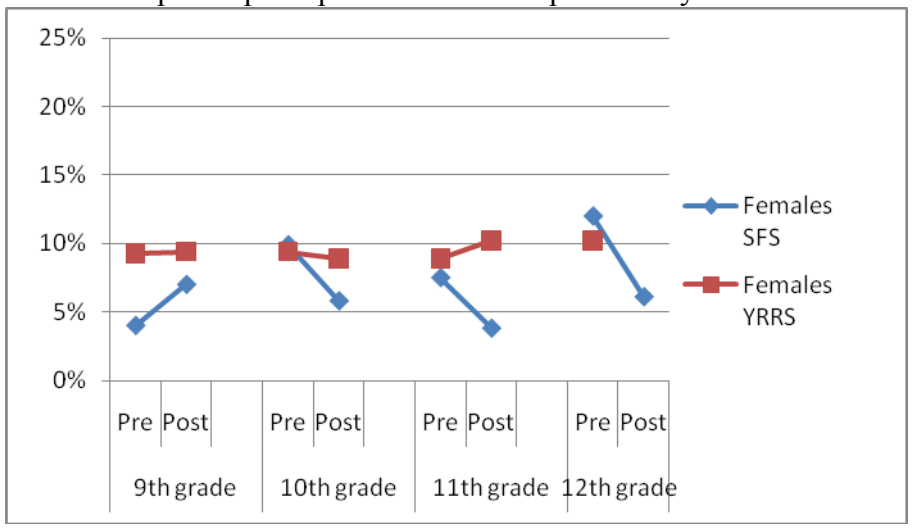


Figure 23: Percent of 9th-12th grade males who think their parents feel it is "wrong" or "very wrong" for him/her to drink alcohol

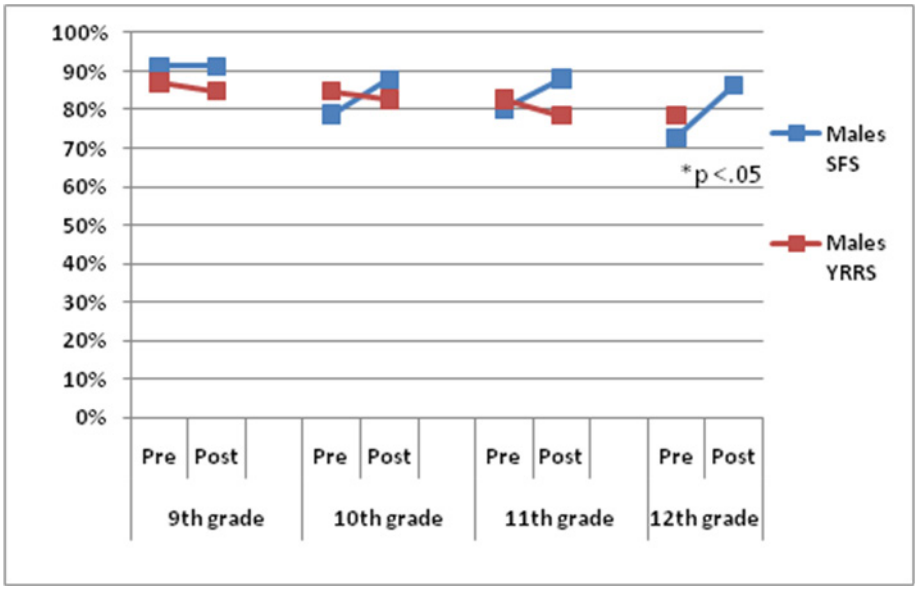


Figure 24: Percent of 9th-12th grade females who think their parents feel it is "wrong" or "very wrong" for him/her to drink alcohol

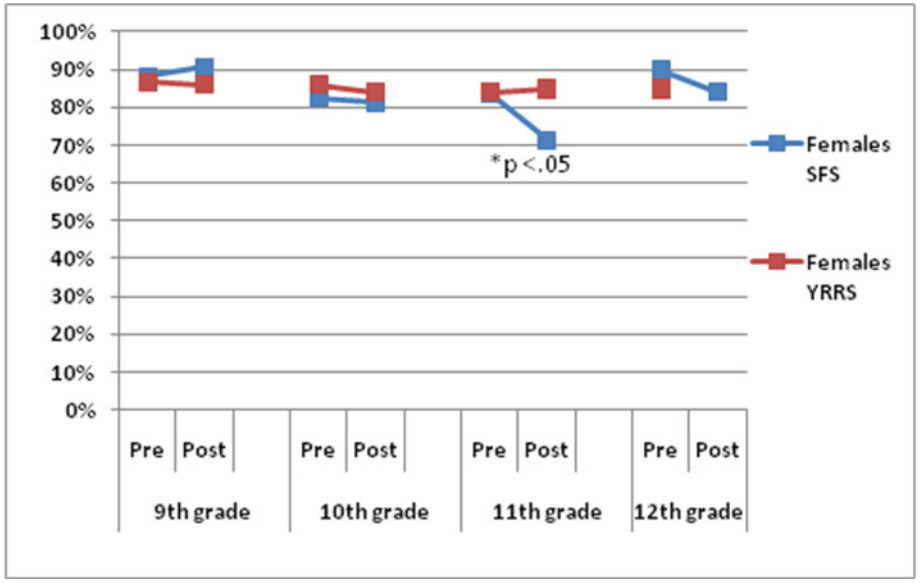


Figure 25: Percent of 9th-12th grade males who think it is wrong for people their age to drink alcohol

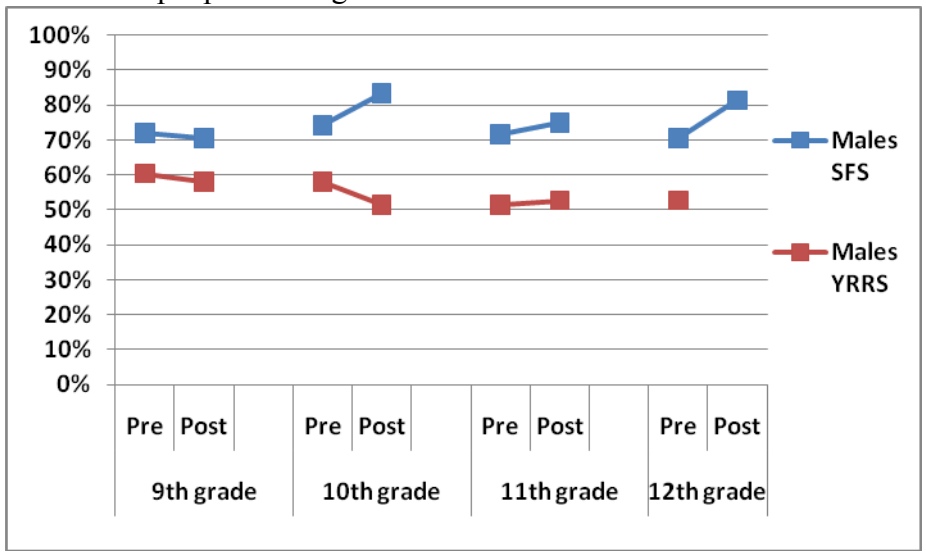


Figure 26: Percent of 9th-12th grade females who think it is wrong for people their age to drink alcohol

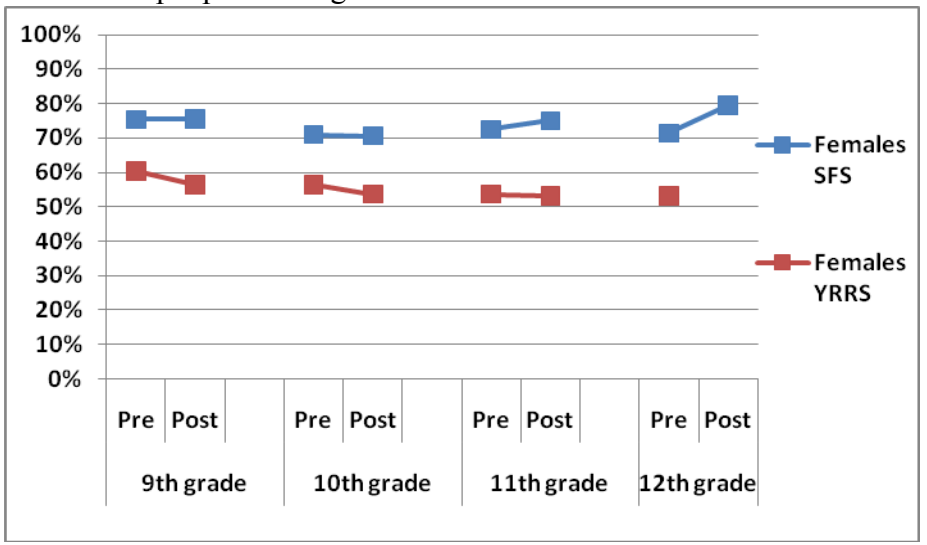


Figure 27: Percent of 9th-12th grade males who reported most or all of their friends drink alcohol once a week or more

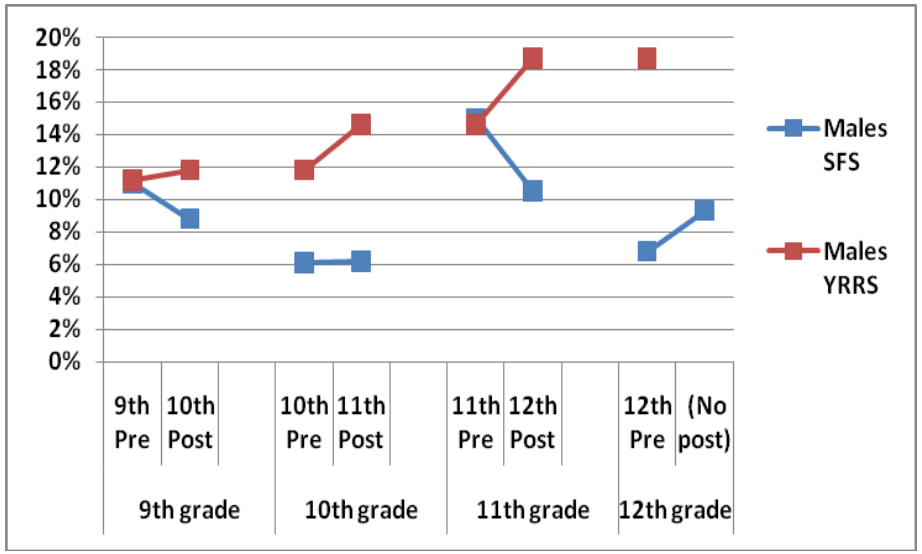


Figure 28: Percent of 9th-12th grade females who reported most or all of their friends drink alcohol once a week or more

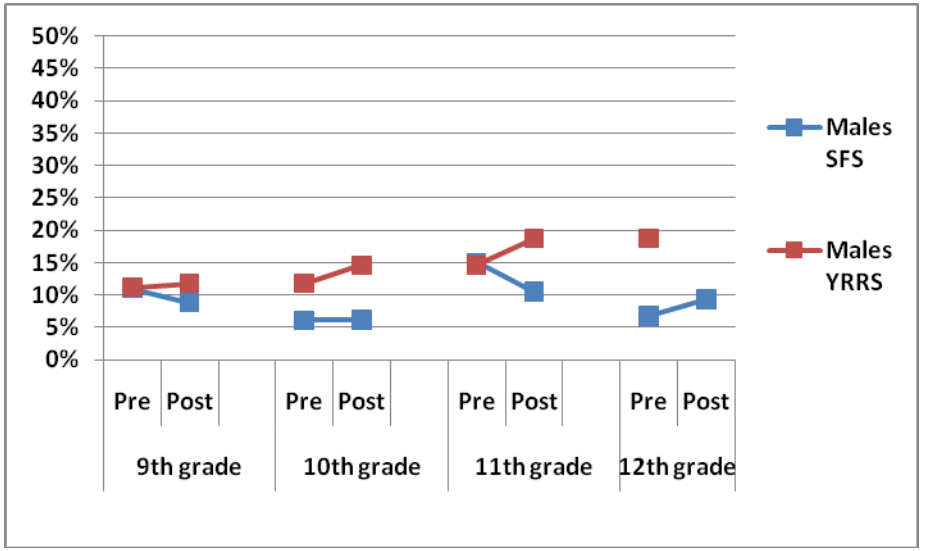


Figure 29: Percent of 9th-12th grade males who report most or all of their friends have used drugs (such as marijuana or cocaine)

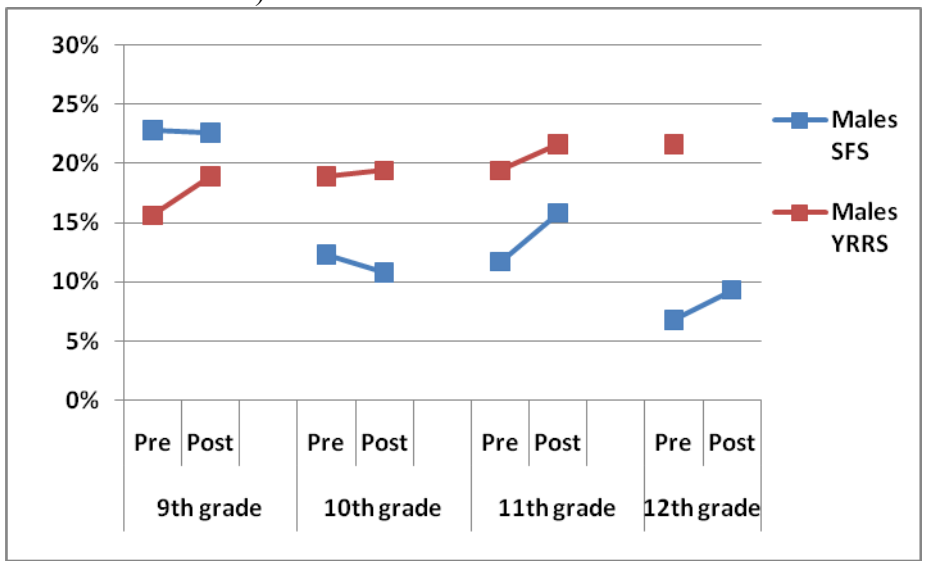


Figure 30: Percent of 9th-12th grade females who report most or all of their friends have used drugs (such as marijuana or cocaine)

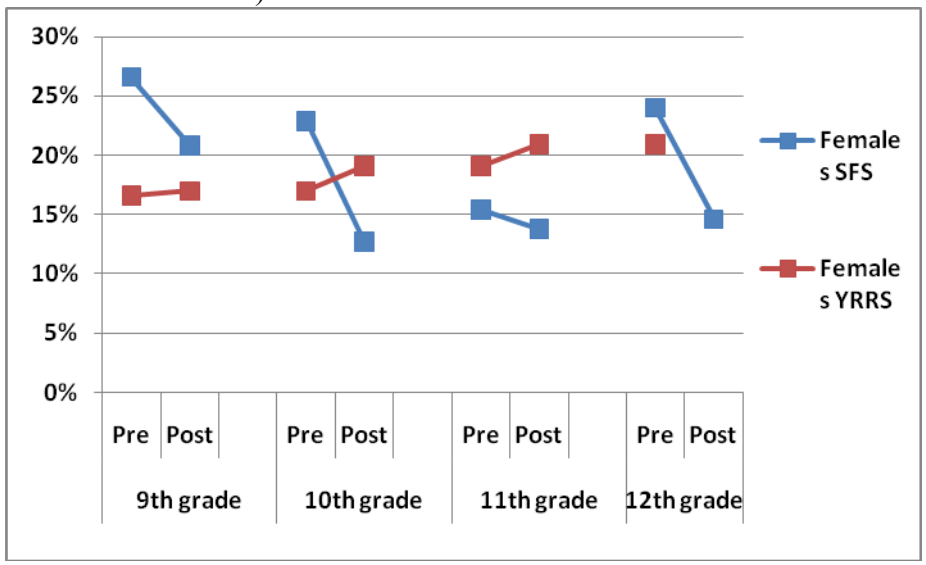


Figure 31: Percent of 9th-12th grade males who report missing school at least once in the past 30 days because he/she felt unsafe

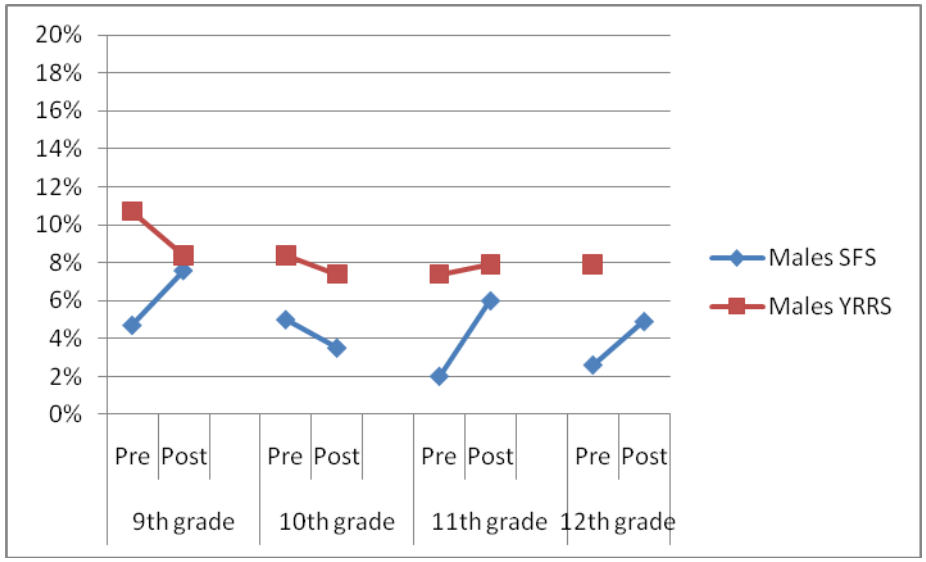
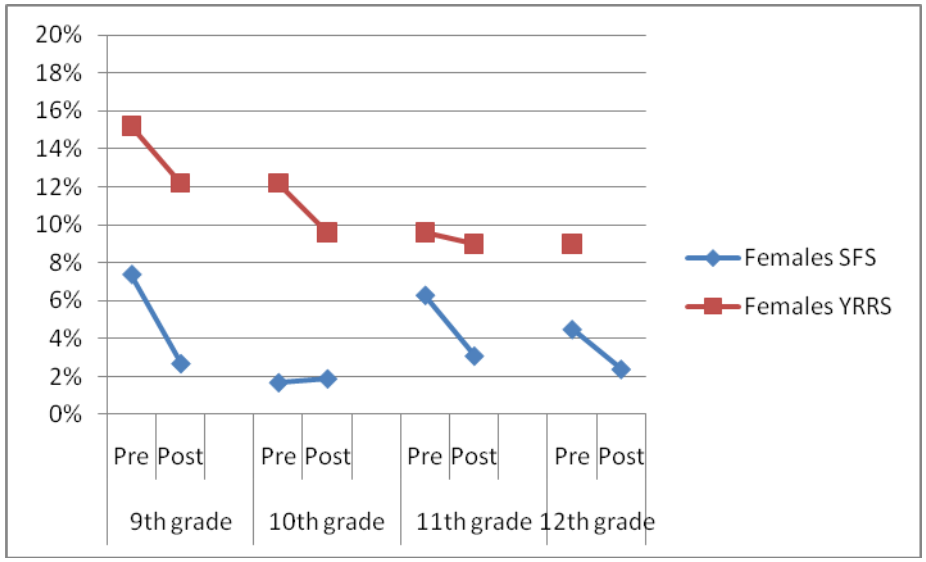


Figure 32: Percent of 9th-12th grade females who report missing school at least once in the past 30 days because he/she felt unsafe



Appendix E7
SFS High School: Hispanic Sample Analysis Results

2009 Demographics for Hispanic High School SFS Program Participants

Mean Age for High School SFS Program Participants: μ=15.65 sd=1.242

Table 1: Demographics for high school Hispanic SFS program participants at pre-test (N=541)

Demographic	N	% SFS Program Participants
Grade		
Not in school	1	0.2%
8th grade	0	0.0%
9th grade	289	53.5%
10th grade	80	14.8%
11th grade	100	18.5%
12th grade	70	13.0%
Biological Sex		
Male	269	49.9%
Female	270	50.1%
Language Other than English Spoken Most Often[a]		
Yes	285	52.8%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

Table 2: Past 30-day ATOD usea differences from pre-test to post-test for high school Hispanic SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Cigarettes (n=538)	19.4%	19.1%	0.918
Chewing Tobacco (n= 537)	3.5%	6.5%	0.012*
Alcohol (n=537)	36.6%	32.8%	0.066
Marijuana (n=537)	22.9%	24.8%	0.348
Binge Drinking (n=537)	24.5%	20.4%	0.049*

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Frequency of ATOD use, differences from pre-test to post-test for high school Hispanic SFS program participants

Substance	Pre-test Mean	Post-test Mean	t-value
Marijuana (n=537)	0.50	0.54	-0.917
Cocaine (n=537)	0.04	0.04	0.000
Inhalants (n=536)	0.08	0.04	1.830
Heroin (n=540)	0.04	0.03	0.510
Methamphetamines (n=539)	0.05	0.03	0.763
Ecstasy (n=539)	0.05	0.05	0.262

a 0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
*p≤.05, **p≤.01, ***p≤.001.

Table 4: Past 30-day prescription drug use, differences from pre-test to post-test for high school Hispanic SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Any prescription medication not prescribed (n=532)	9.8%	8.6%	0.464
Any cough medication not prescribed (n=523)	19.4%	13.3%	0.002**
Any prescription pain pills not prescribed (n=522)	7.6%	6.6%	0.470
Any Ritalin, Adderal, or Prozac not prescribed (n=519)	1.9%	2.5%	0.815
Any prescription sleep aids or tranquilizers not prescribed (n=519)	4.3%	2.7%	0.100
Any other medications not prescribed (n=521)	8.2%	6.5%	0.194

[a] Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test

Scale scores and tests of significance for SFS Program Participants are provided below for the behavioral outcomes of interest.

Table 5: Mean scale scores, significance tests and reliability statistics for high school Hispanic SFS program participants

Sub-Scale	Range	Pre-test Mean	Cron-bach's ∞	Post-test Mean	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n= 513)	5-20	2.89	0.866	2.97	0.874	-2.388*	🡅 Is better
Peer ATOD Use (n=528)	0-12	1.03	0.859	0.91	0.852	3.031**	🡇 Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 6: Attitudes toward alcohol use [a] for high school Hispanic SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=535)	3.50	3.44	1.975*	🡅 Is better
Respondent Attitudes Toward Alcohol Use (n=535)	3.07	3.07	0.091	🡅 Is better

[a] Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Table 7: Impaired driving measures[a] for high school Hispanic SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Rode with Someone who had been Drinking (n= 537)	0.60	0.48	2.668**	🡇 Is better
Drove after Drinking (n=537)	0.13	0.11	0.915	🡇 Is better

[a]One item only; 0=0 times, 1=time, 2=2 or 3 times, 3=4 or 5 times, 4=6 or more times.
*p≤.05, **p≤.01, ***p≤.001.

2009 GLM Analysis on Measures for High School Hispanic SFS Participants

Table 8: Examining the effect of time on post-test risk of harm measures mean scores controlling for pre-test estimates (n=487)

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
	Min	Max					
Perceived Risk of Harm of ATOD Use	1-5		2.91	3.00	7.720**	0.016	Is better
Peer Use	0-3		1.06	0.92	11.715***	0.024	Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 9: Examining the effect of time on post-test substance use measures mean scores controlling for pre-test estimates (n=487)

Substance	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Cigarettes	0.20	0.19	0.101	0.000	Is better
Chewing Tobacco	0.03	0.06	4.838*	0.010	Is better
Alcohol	0.37	0.32	3.727*	0.008	Is better
Marijuana	0.23	0.25	1.000*	0.002	Is better
Binge Drinking	0.23	0.19	3.869	0.008	Is better
Prescription Drugs	0.10	0.08	1.032	0.002	Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Summary of Results of High School Hispanic Sample

The following figures show results for Hispanic high school students participating in SFS programs. On average, 541 Hispanic high school students completed the SFS survey. Responses were combined to create an overall average score for each question at pre-test and post-test for each grade. Results are reported by gender.

For Hispanic males, a greater number of SFS males initially reported that most or all of their friends have used drugs when compared to YRRS data. However, a decline in report for SFS participants between 10th and 11th grade and again between 11th and 12th grade produced final figures showing fewer SFS males reporting this behavior compared to YRRS males. Similar results were shown for females, with a decline between 10th and 11 grades. Despite an increase in report of peer drug use between 11th and 12th grades for females, an overall decline was seen from 9th to 12th grades. Additionally, even though both SFS and YRRS males report a similar rate of friends using alcohol at baseline, by the 12th grade SFS males were considerably less likely to report peer alcohol use compared to their YRRS counterparts.
SFS and YRRS males report similar alcohol use at baseline. However, general trends show a decrease in alcohol use for SFS males compared to their YRRS counterparts. This suggests SFS prevention programs may be positively influencing alcohol use for Hispanic males. Results are less clear for females, with general declines in use reported within 9th, 10th, and 11th grades. Despite these declines, rates of use increased in the 12th grade year. This could result actual behavior or reflect the small sample size of Hispanic female participants. In addition, assessment of results proved difficult for illicit drug use behaviors given the low percentage of students reporting the behavior as well as the small number of survey participants.

Note: Because the YRRS only collects data through the 12th grade, no post-test data is available for 12th grade survey questions. The small sample size of students completing SFS surveys, particularly in 11th and 12th grades, suggests assessment of reported changes should be made with caution. Because of the small number of responses, changes for a relatively few number of students could result in large effect sizes between pre-test and post-test. This is particularly true in instances where overall report of a behavior is low (such as Methamphetamine use).

Figure 1: Percentage of 9th-12th grade Hispanic males reporting smoking cigarettes in the past 30 days

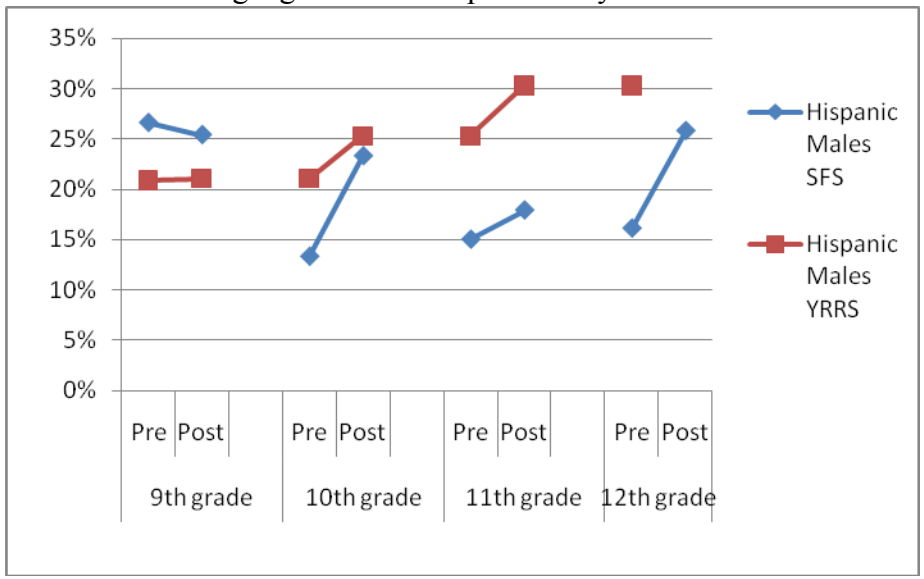


Figure 2: Percentage of 9th-12th grade Hispanic females reporting smoking cigarettes in the past 30 days

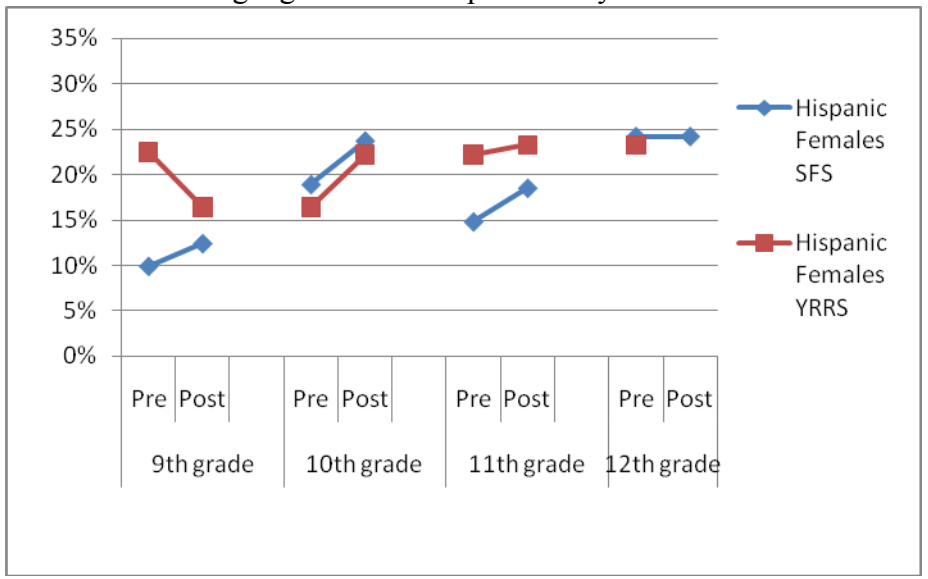


Figure 3: Percentage of 9th-12th grade Hispanic males reporting using smokeless tobacco in the past 30 days

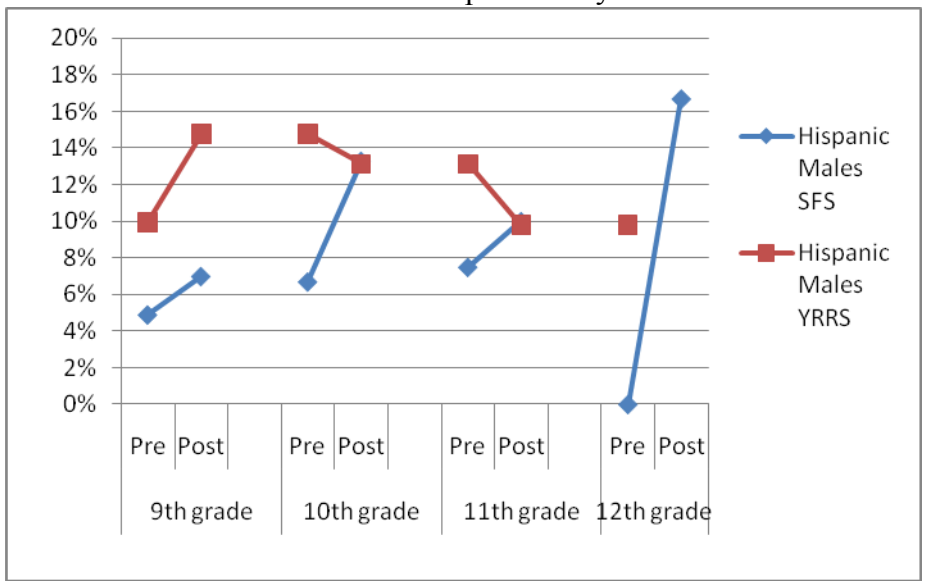


Figure 4: Percentage of 9th-12th grade Hispanic females reporting using smokeless tobacco in the past 30 days

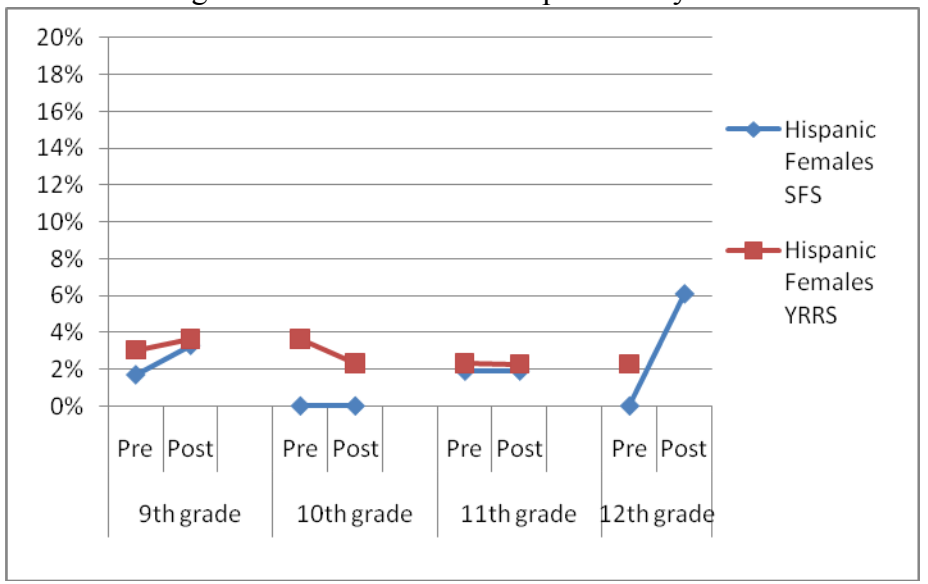


Figure 5: Percentage of 9th-12th grade Hispanic males who report drinking alcohol in the past 30 days

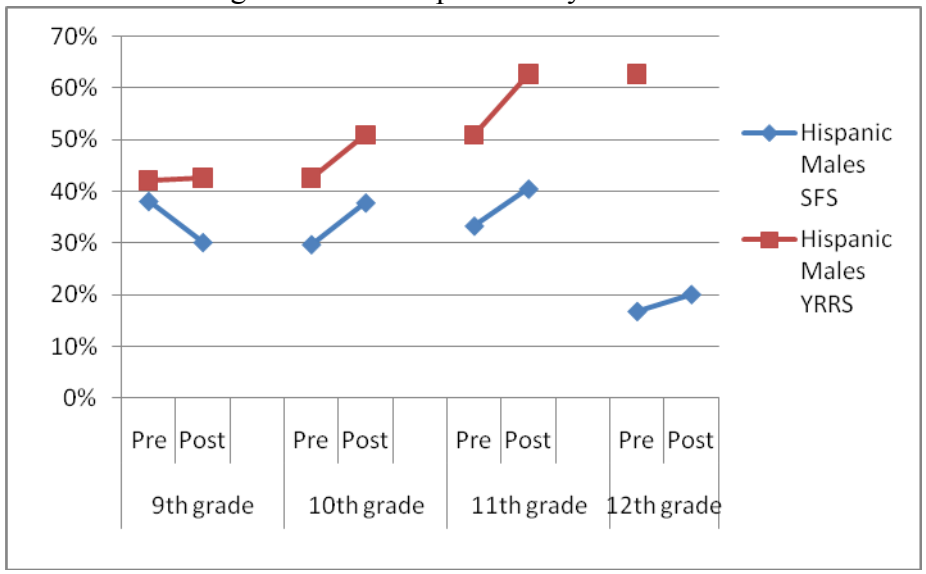


Figure 6: Percentage of 9th-12th grade Hispanic females who report drinking alcohol in the past 30 days

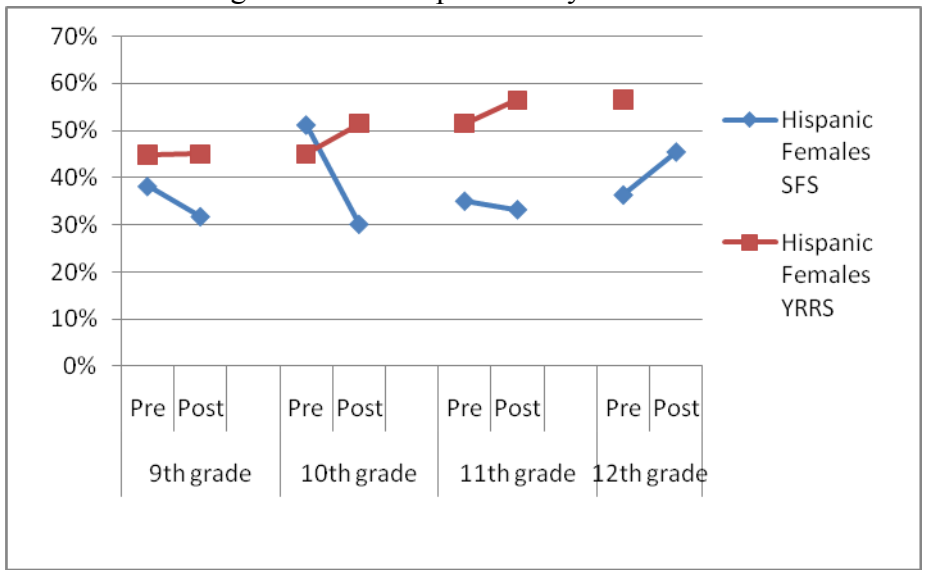


Figure 7: Percentage of 9th-12th grade Hispanic males who report binge drinking in the past 30 days

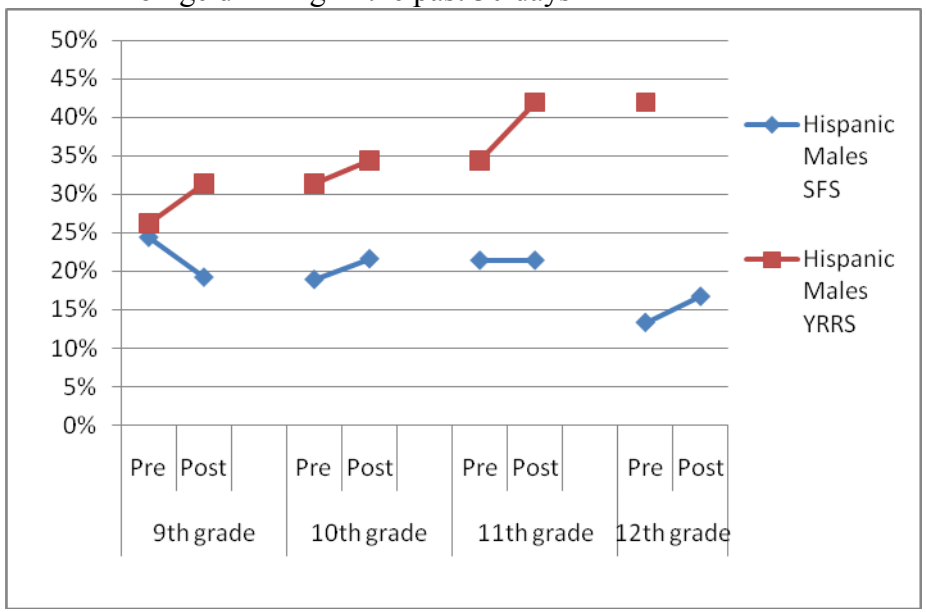


Figure 8: Percentage of 9th-12th grade Hispanic females who report binge drinking in the past 30 days

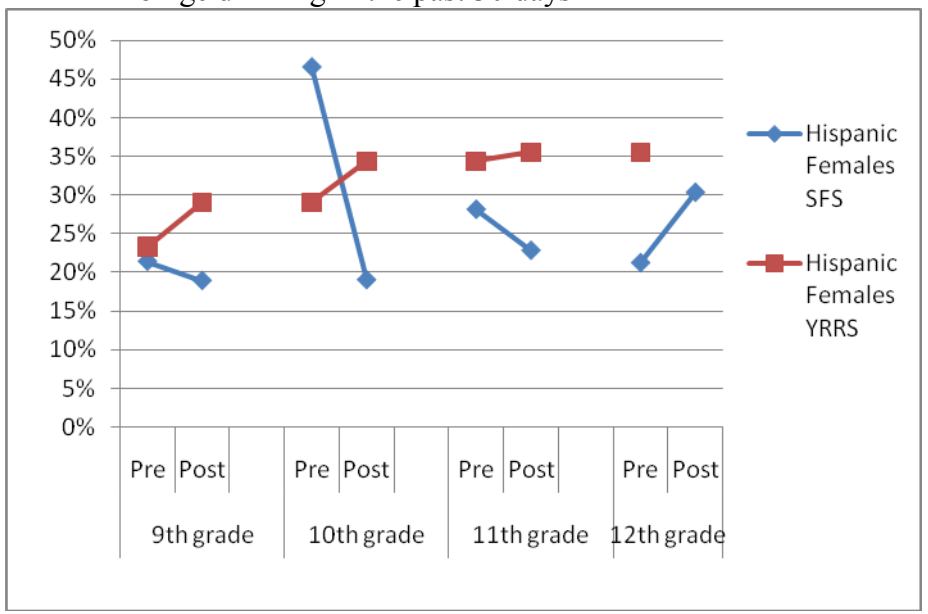


Figure 9: Percentage of 9th-12th grade Hispanic males who report marijuana use in the past 30 days

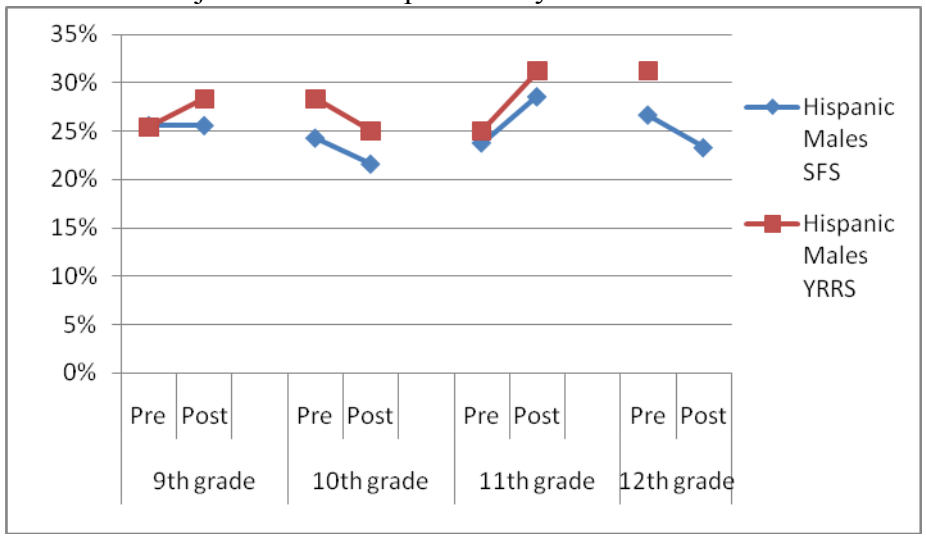


Figure 10: Percentage of 9th-12th grade Hispanic females who report marijuana use in the past 30 days

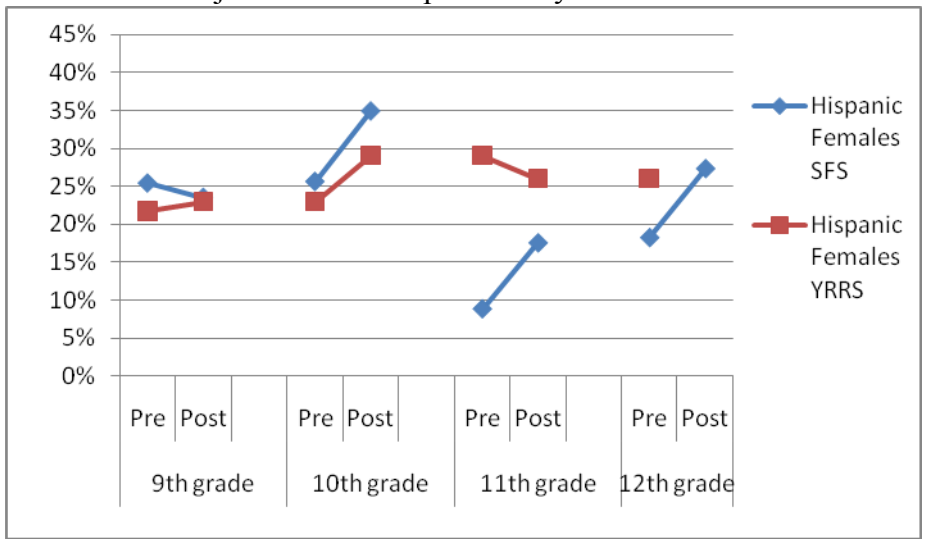


Figure 11: Percentage of 9th-12th grade Hispanic males who report cocaine use in the past 30 days

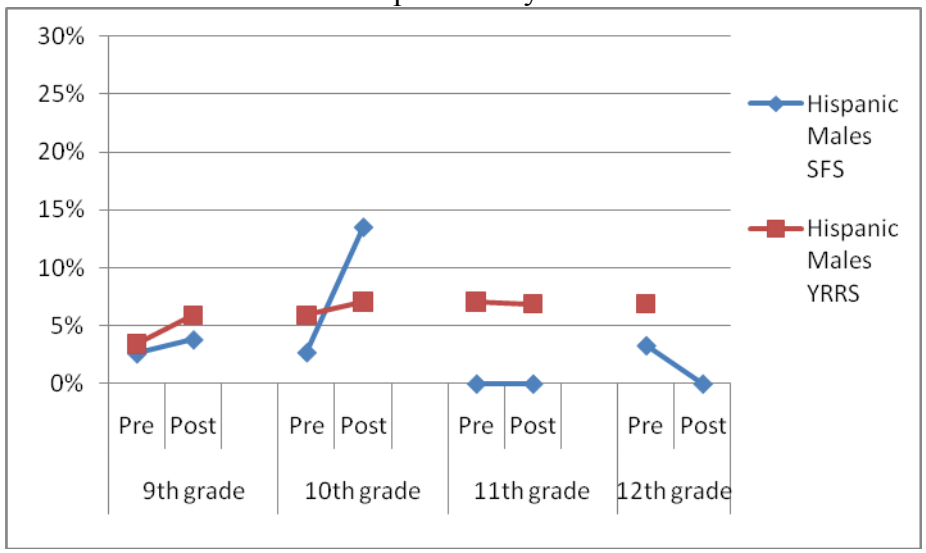


Figure 12: Percentage of 9th-12th grade Hispanic females who report cocaine use in the past 30 days

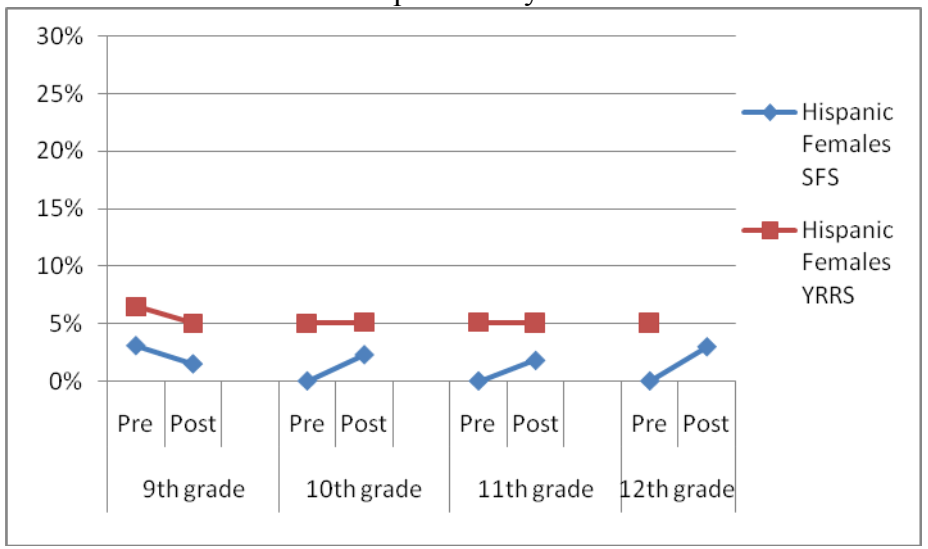


Figure 13: Percentage of 9th-12th grade Hispanic males who report sniffing glue in the past 30 days

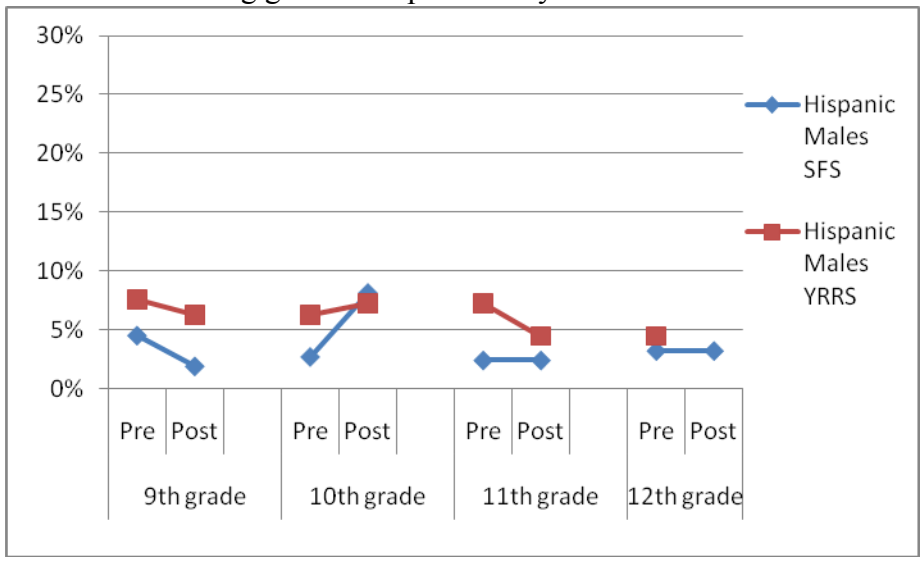


Figure 14: Percentage of 9th-12th grade Hispanic females who report sniffing glue in the past 30 days

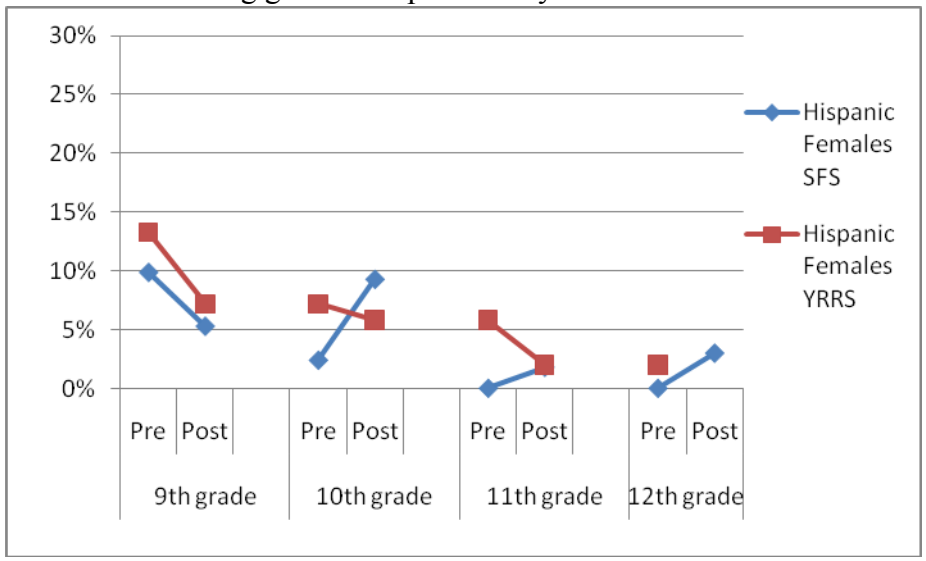


Figure 15: Percentage of 9th-12th grade Hispanic males who report using heroin in the past 30 days

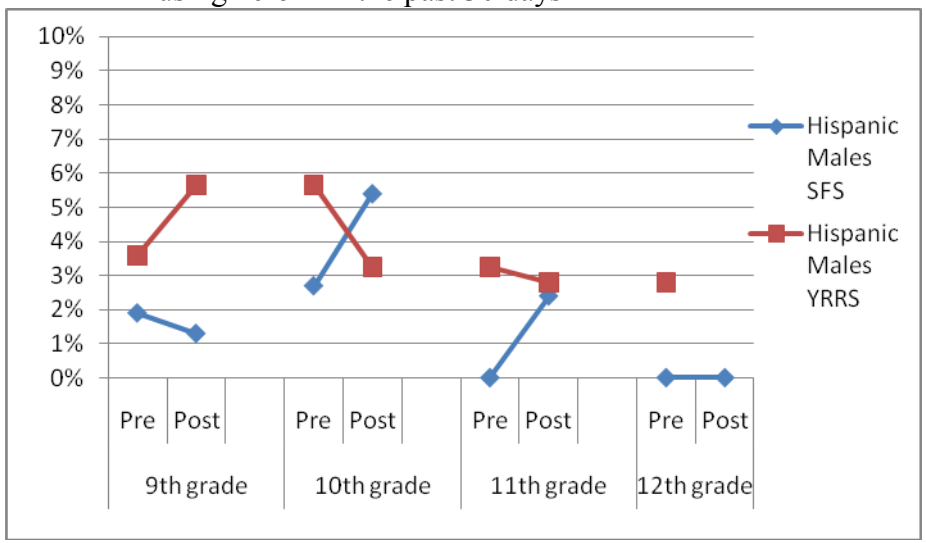


Figure 16: Percentage of 9th-12th grade Hispanic females who report using heroin in the past 30 days

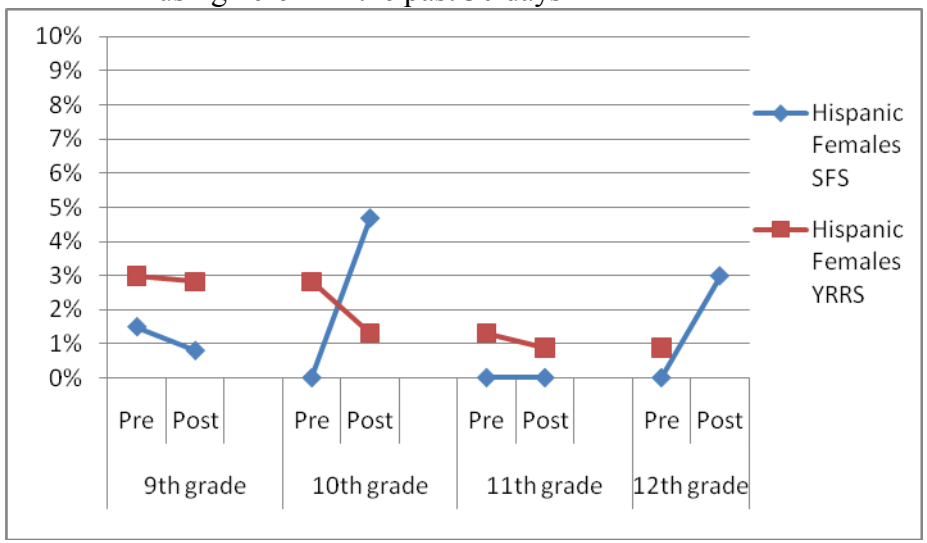


Figure 17: Percentage of 9th-12th grade Hispanic males who report using methamphetamine in the past 30 days

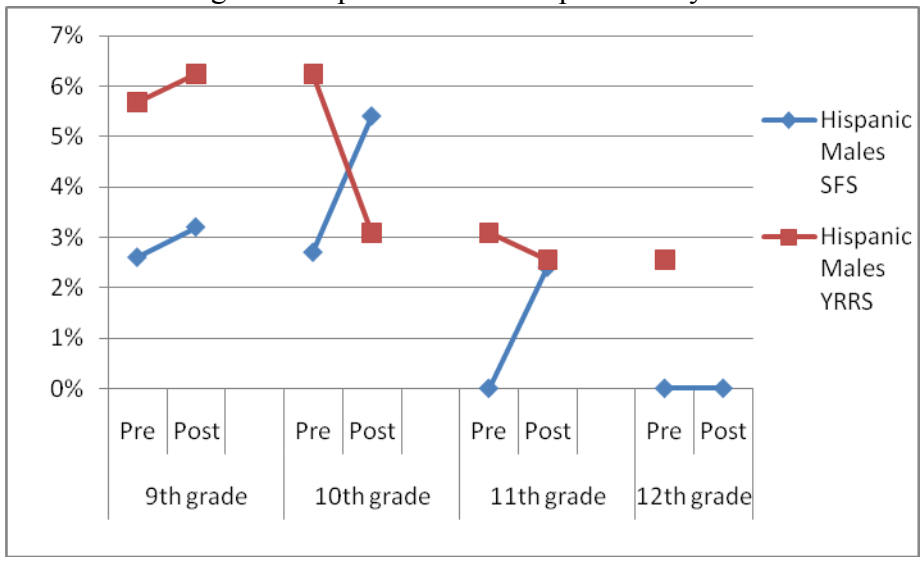


Figure 18: Percentage of 9th-12th grade Hispanic females who report using methamphetamine in the past 30 days

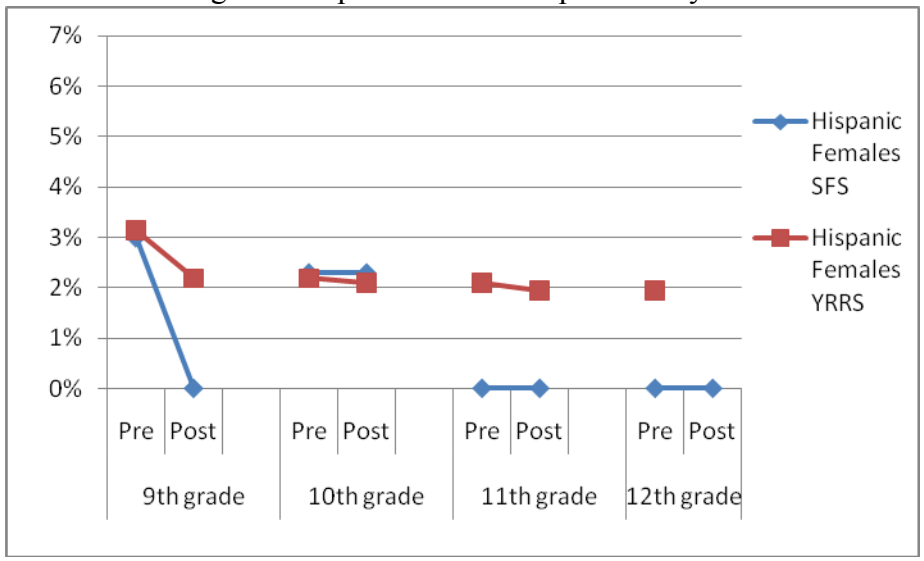


Figure 19: Percentage of 9th-12th grade Hispanic males who report using Ecstasy in the past 30 days

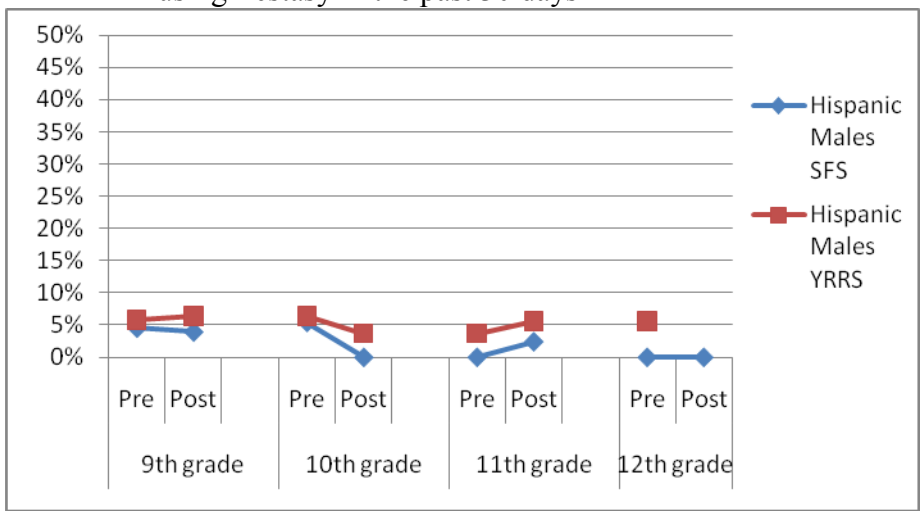


Figure 20: Percentage of 9th-12th grade Hispanic females who report using Ecstasy in the past 30 days

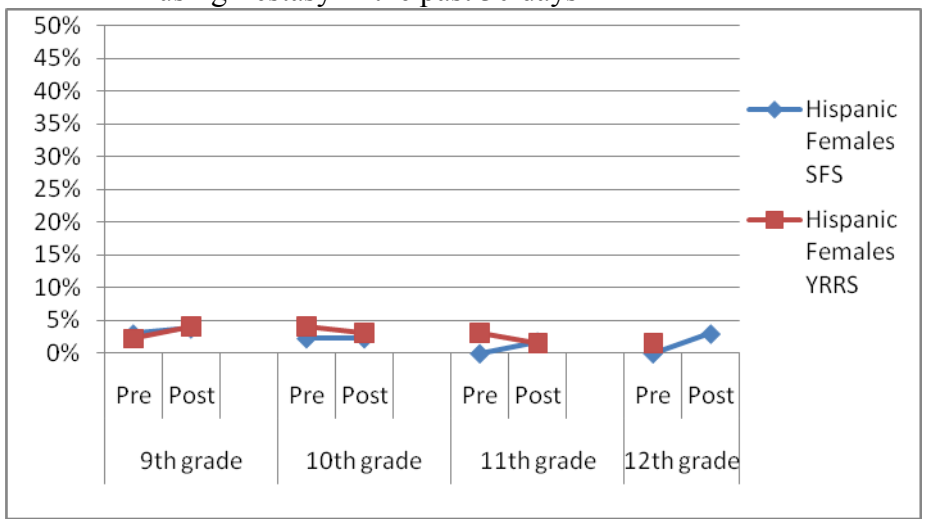


Figure 21: Percentage of 9th-12th grade Hispanic males who report use of pain killers in the past 30 days

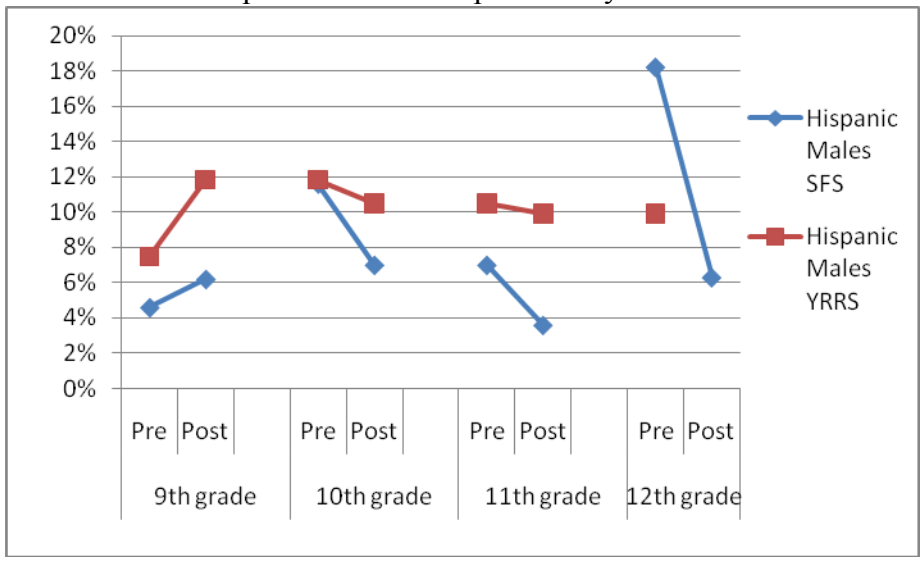


Figure 22: Percentage of 9th-12th grade Hispanic females who report use of pain killers in the past 30 days

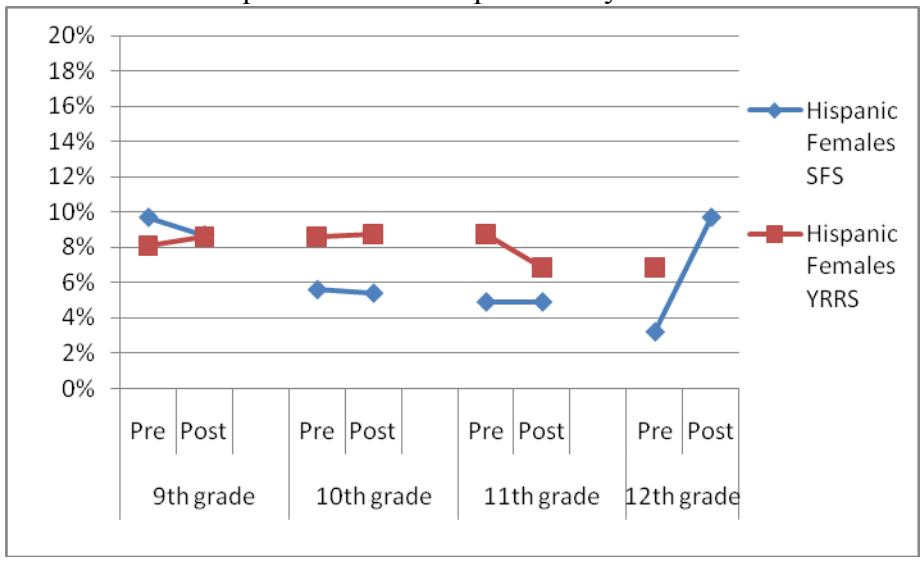


Figure 23: Percent of 9th-12th grade Hispanic males who think their parents feel it is "wrong" or "very wrong" for him/her to drink alcohol

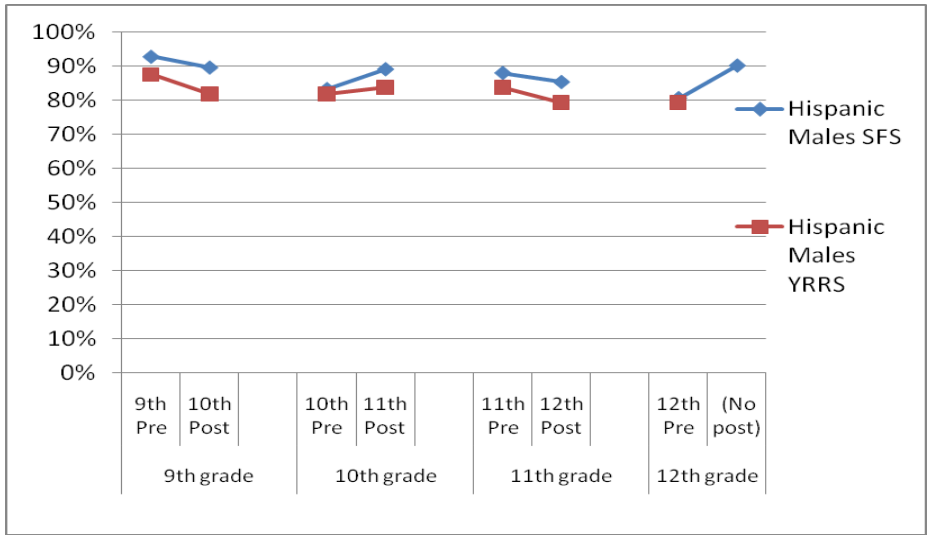


Figure 24: Percent of 9th-12th grade Hispanic females who think their parents feel it is "wrong" or "very wrong" for him/her to drink alcohol

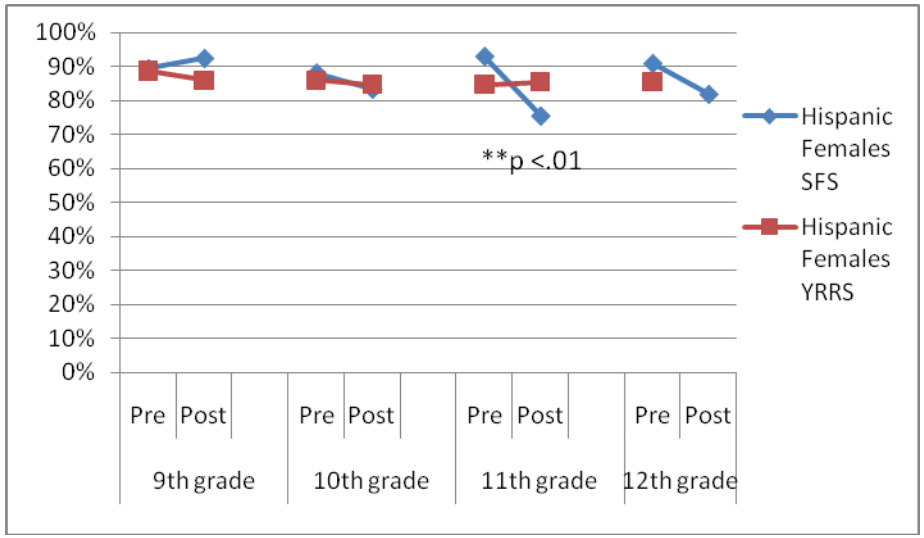


Figure 25: Percent of 9th-12th grade Hispanic males who think it is wrong for people their age to drink alcohol

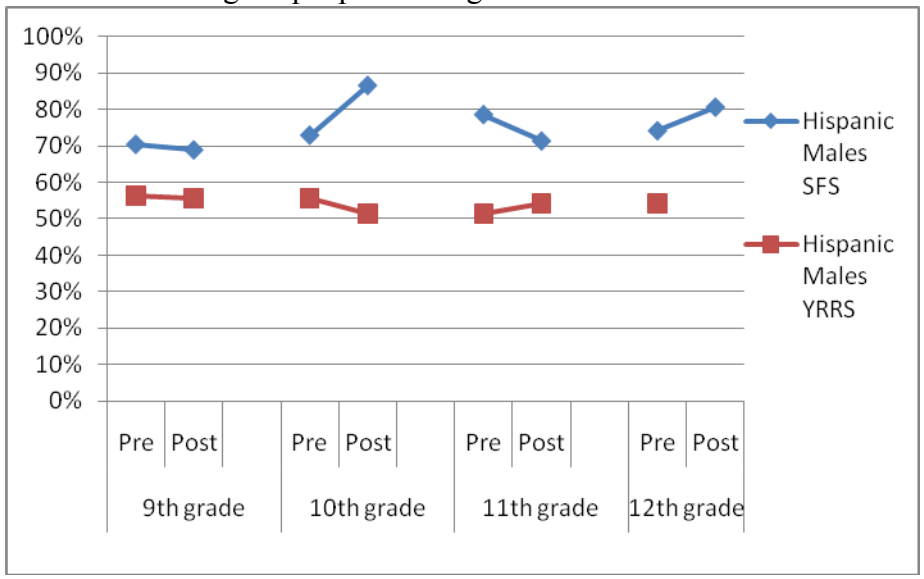


Figure 26: Percent of 9th-12th grade Hispanic females who think it is wrong for people their age to drink alcohol

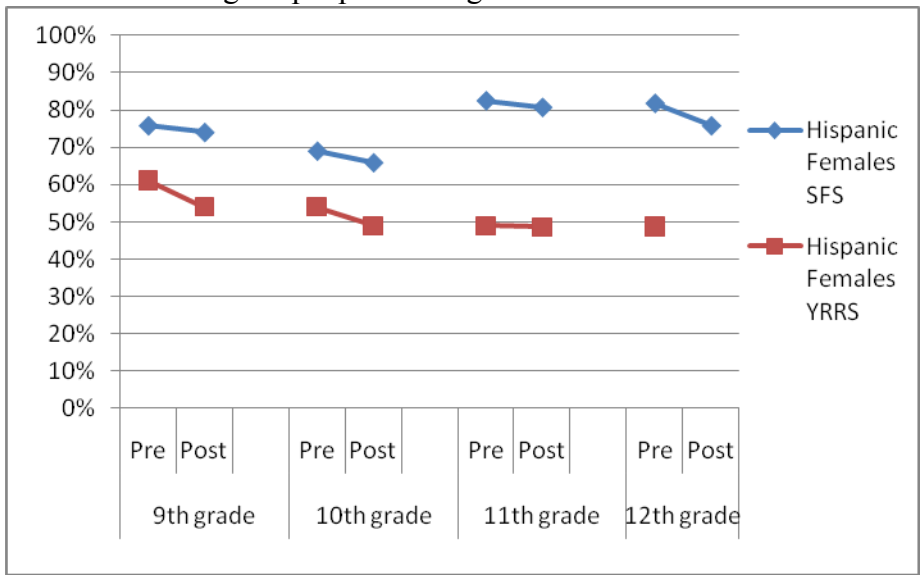


Figure 27: Percent of 9th-12th grade Hispanic males who reported most or all of their friends drink alcohol once a week or more

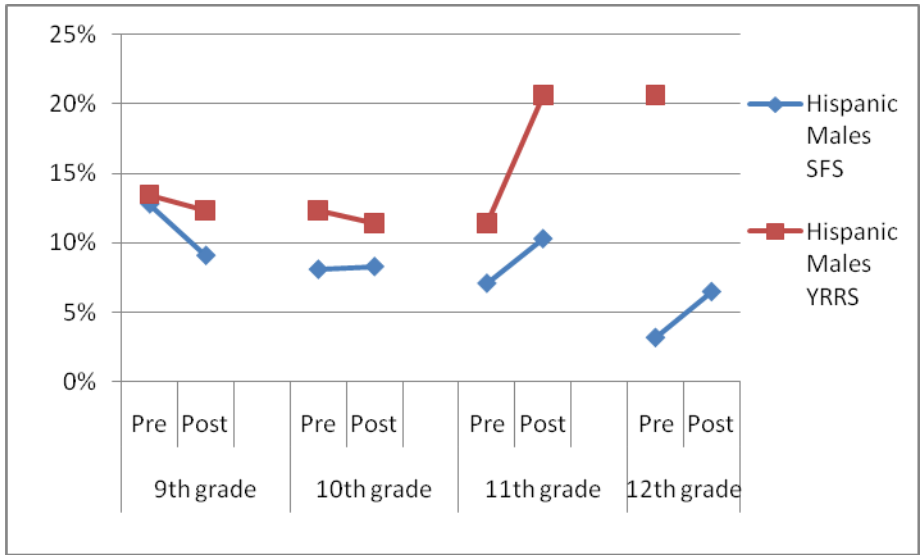


Figure 28: Percent of 9th-12th grade Hispanic females who reported most or all of their friends drink alcohol once a week or more

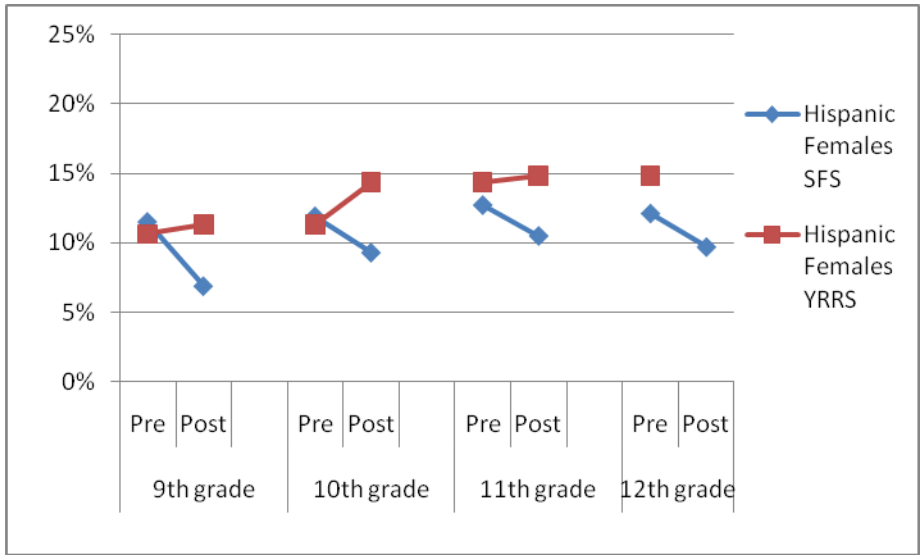


Figure 29: Percent of 9th-12th grade Hispanic males who report most or all of their friends have used drugs (such as marijuana or cocaine)

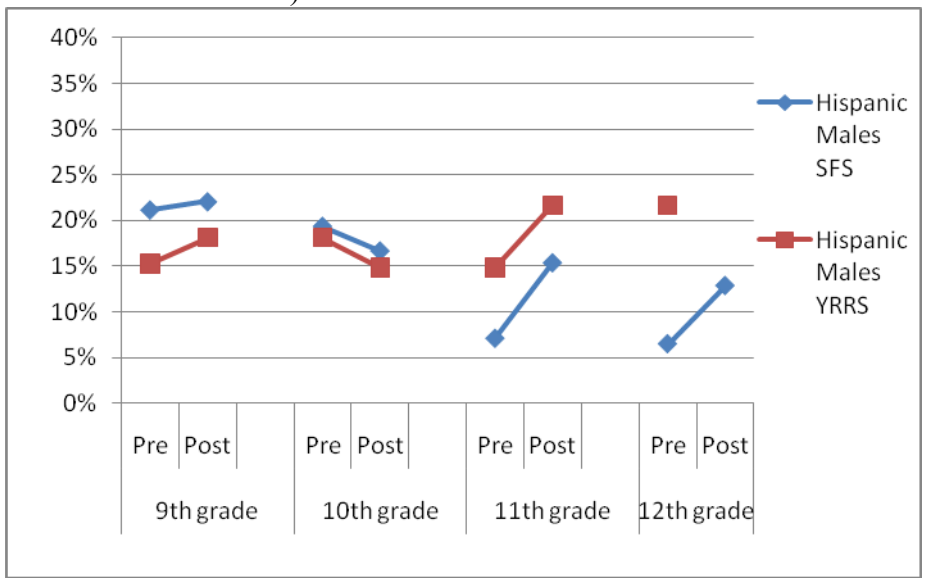


Figure 30: Percent of 9th-12th grade Hispanic females who report most or all of their friends have used drugs (such as marijuana or cocaine)

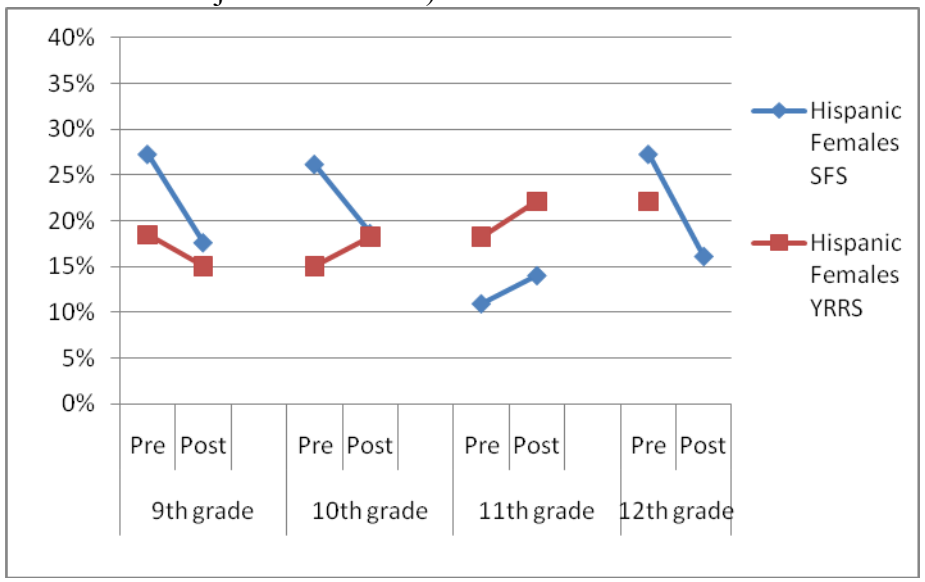


Figure 31: Percentage of 9th-12th grade Hispanic males reporting missing school at least once in the past 30 days because they felt unsafe

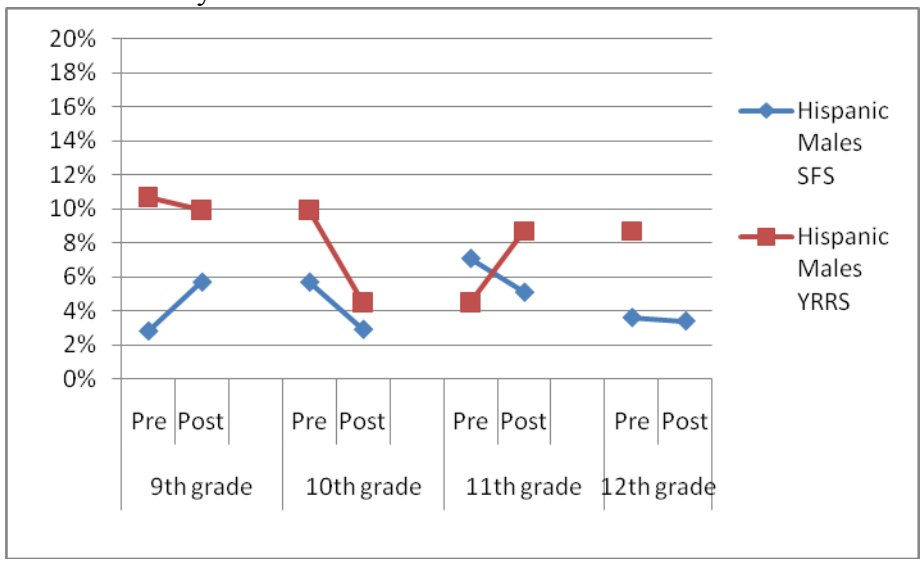
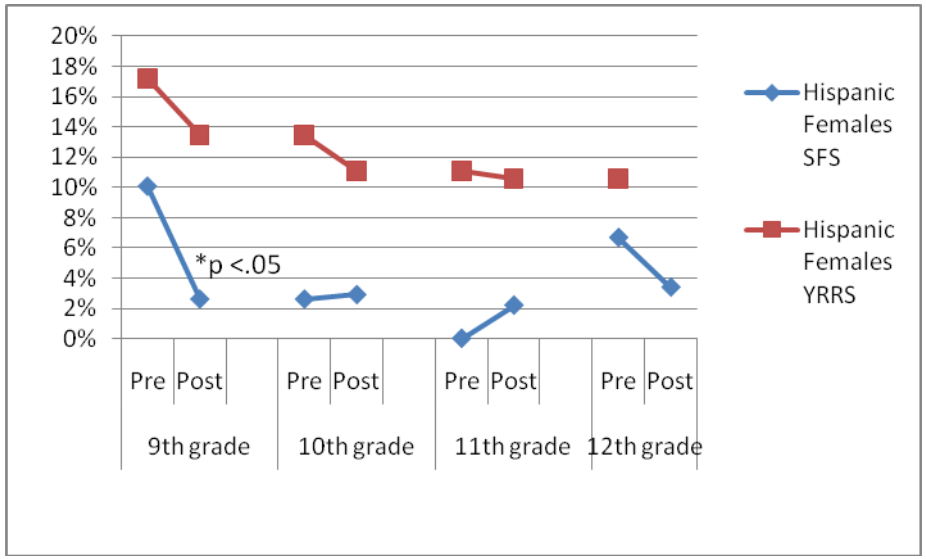


Figure 32: Percentage of 9th-12th grade Hispanic females reporting missing school at least once in the past 30 days because they felt unsafe



Appendix E8
SFS High School: Native American Sample Analysis Results

2009 Demographics for High School Native American SFS Program Participants

Mean Age for High School Native American SFS Program Participants: μ=15.58 sd=1.340

Table 1: Demographics for high school Native American SFS program participants at pre-test (N=103)

Demographic	N	% SFS Program Participants
Grade		
Not in school	0	0.0%
8th grade	3	2.9%
9th grade	57	55.3%
10th grade	19	18.4%
11th grade	13	12.6%
12th grade	11	10.7%
Biological Sex		
Male	55	53.4%
Female	48	46.6%
Language Other than English Spoken Most Often[a]		54.4%
Yes	60	58.8%

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

2009 Past 30-day Substance Use Rates for High School Native American SFS Program Participants

Tables 2-4 capture the percentage of High School SFS Program Participants self-reporting past 30-day substance use and frequency of substance use at pre-test and post-test along with tests of significance.

Table 2: Past 30-day ATOD use[a] differences from pre-test to post-test for high school Native American SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Cigarettes (n=102)	24.3	15.7	0.064
Chewing Tobacco (n= 103)	7.8	5.8	0.688
Alcohol (n=103)	33.0	28.2	0.424
Marijuana (n=103)	36.9	35.0	0.845
Binge Drinking (n=103)	21.4	18.4	0.678

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

Table 3: Frequency of ATOD use, differences from pre-test to post-test for high school Native American SFS program participants

Substance	Pre-test Mean	Post-test Mean	t-value
Marijuana (n=103)	0.92	0.73	1.544
Cocaine (n=103)	0.17	0.06	1.383
Inhalants (n=103)	0.19	0.09	1.735
Heroin (n=102)	0.07	0.05	0.315
Methamphetamines (n=102)	0.11	0.00	1.941
Ecstasy (n=102)	0.11	0.03	1.378

a 0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
*p≤.05, **p≤.01, ***p≤.001.

Table 4: Past 30-day prescription drug use, differences from pre-test to post-test for high school Native American SFS program participants

Substance	% Pre-test	% Post-test	McNemar
Any prescription medication not prescribed (n=100)	12.6	8.0	0.454
Any cough medication not prescribed (n=95)	18.0	14.3	0.481
Any prescription pain pills not prescribed (n=95)	8.0	7.1	1.000
Any Ritalin, Adderal, or Prozac not prescribed (n=93)	2.0	2.1	1.000
Any prescription sleep aids or tranquilizers not prescribed (n=94)	2.0	5.2	0.453
Any other medications not prescribed (n=95)	16.0	11.2	0.332

a Dichotomous substance use variable (yes or no).
*p≤.05, **p≤.01, ***p≤.001.

2009 Behavioral Outcomes, Scale Scores at Pre-test and Post-test

Scale scores and tests of significance for SFS Program Participants are provided below for the behavioral outcomes of interest.

Table 5: Mean scale scores, significance tests and reliability statistics for high school Native American SFS program participants

Sub-Scale	Range	Pre-test Mean	Cron-bach's ∞	Post-test Mean	Cron-bach's ∞	t-value	Desired Outcome
Perceived Risk of Harm of ATOD Use (n= 92)	5-20	2.6109	0.861	2.5859	0.925	0.252	↑ Is better
Peer ATOD Use (n=102)	0-12	1.1013	0.784	0.9346	0.791	1.633	↓ Is better

*p≤.05, **p≤.01, ***p≤.001.

Table 6: Attitudes toward alcohol use [a] for high school Native American SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Parental Attitudes Toward Alcohol Use (n=101)	3.27	3.39	-0.831	↑ Is better
Respondent Attitudes Toward Alcohol Use (n=101)	2.94	3.02	-0.612	↑ Is better

[a] Measures are one item only; 1=not wrong at all, 4=very wrong.
*p≤.05, **p≤.01, ***p≤.001.

Table 7: Impaired driving measures[a] for high school Native American SFS program participants

Outcome	Pre-test Mean	Post-test Mean	t-value	Desired Outcome
Rode with Someone who had been Drinking (n= 102)	0.70	0.63	0.605	↓ Is better
Drove after Drinking (n=102)	0.32	0.22	1.292	↓ Is better

[a] One item only; 0=0 times, 1=time, 2=2 or 3 times, 3=4 or 5 times, 4=6 or more times.
*p≤.05, **p≤.01, ***p≤.001.

2009 GLM Analysis on Measures

Table 8: Examining the effect of time on risk of harm post-test measures mean scores controlling for pre-test estimates (n=89)

Sub-Scale	Range		Baseline Mean Score	Post-Test Mean Score	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
	Min	Max					
Perceived Risk of Harm of ATOD Use	1-5		2.6337	2.5921	0.171	0.002	↑ Is better
Peer Use	0-3		1.1461	0.9663	2.503	0.028	↓ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 9: Examining the effect of time on post-test substance use measures mean scores controlling for pre-test estimates (n=89)

Substance	Baseline Mean	Post-Test Mean	F-test & sig. (indicated by asterisk[s])	effect size[a]	Desired Outcome
Cigarettes	0.2135	0.1348	3.353	0.037	↓ Is better
Chewing Tobacco	0.0674	0.0337	1.817	0.020	↓ Is better
Alcohol	0.3258	0.2584	1.509	0.017	↓ Is better
Marijuana	0.3596	0.3483	0.040	0.000	↓ Is better
Binge Drinking	0.2135	0.1573	1.321	0.015	↓ Is better
Any Prescription Medication Not Prescribed	0.1200	0.0900	0.597	0.007	↓ Is better

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*p ≤ .05, **p ≤ .01, ***p ≤ .001.