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Final Report: Evaluation of Anchorage School District's Second Order Change Project

Subgrant to the Cook Inlet Tribal Council's Strategic Prevention Framework State/Tribal Incentive Grant

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Executive Summary

ASD's Second Order Change project aimed to promote better outcomes for Anchorage youth—particularly less alcohol and drug use, and particularly for Native Alaskan students—by improving the social and emotional interactional skills of adults in the education system.

Data for this evaluation showed that the inputs for this project were delivered with both quantity and quality. Over three years, almost 70 professional development opportunities were offered, and these reached nearly 2,000 educators. In a district with 3,500 teachers and roughly 7,000 total staff members, these efforts represent a respectable start.

Not only were a large number of professional development opportunities offered, but they were very well-received by the attendees. Comparison of responses to knowledge, practice, and attitude items from pre to post-class showed some significant improvements for every class, and for some classes, significant gains on a majority of items. These changes are particularly notable given that many of the classes were of relatively short duration; only a few days or weeks.

More enduring changes for participants in the training were tested using an annual follow-up survey that measured interpersonal values, authoritarianism, and mindfulness. This is a much more stringent test of effects than the pre- post-surveys. The Circumplex Scales of Interpersonal Values showed that participants in Second Order Change activities significantly reduced their distance with students (for teachers and other school staff) and with staff (for principals). Although they did not improve in friendliness overall, they were already at quite high levels at baseline. Although there were no changes in authoritarianism, mindfulness did improve significantly for teachers and other staff across both waves of follow-up. Principals improved also, but the statistical tests were not significant.

Based on anonymous student surveys, we found that student-reported respectful climate improved steadily over time in ASD schools. Respectful climate includes being treated fairly and respectfully, and reporting that "teachers here are nice people." The results showed that the trends in respectful climate did not appear to be "interrupted" by the onset of the Second Order Change grant starting in the 2009–10 school year. Instead, there was already a trend toward improvement that appeared to continue. It appears that in middle schools, improvement was somewhat greater than at baseline, however.

The caring adults scale reflects a more personal sense of connection to the adults at school This scale also appeared to improve somewhat for middle schools (and to a lesser extent in elementary schools), but scores for high schools were flat. The timing of improvements overlaps with the period of the Second Order Change grant. Although there are many plausible competing explanations for this, the data are consistent with an effect of the program.

Findings for Native Alaskan students on these school variables showed that these students reported the highest scores for respectful climate at school, but until 2012 trailed other groups in reporting the presence of caring adults.

Rates of both student-reported and staff-reported drug and alcohol use have been declining sharply over the past six years. The trends are too steady to show an effect of the Second Order

Change project. Reports of drug and alcohol use by Native Alaskan students have consistently been lower than those for students overall.

The Second Order Change project achieved modest but significant effects on an already high-scoring group of staff. Because participants volunteered for the courses, there was likely some bias toward more interest in and more capacity for social and emotional skills among participants.

Outcomes for schools and students were already moving in a positive direction before the beginning of the Second Order Change project, which makes it difficult to attribute effects simply to the grant. More likely, the effects observed in this evaluation are a cumulative effect of years of ASD's investments in the promotion of social and emotional learning for all students; combined with broader cultural trends toward less drug and alcohol use nationwide (rates of alcohol use and all drugs except marijuana are decreasing nationally, CDC, 2012).

Although there is not an apparent causal connection between the Second Order Change project and improved youth indicators, the work ASD has done through this effort has kept it on a course toward continuously more positive outcomes for youth.

Acknowledgements

The American Institutes for Research (AIR) thanks the many individuals who contributed to this project to examine outcomes of the Anchorage School District's (ASD's) Second Order Change project.

First, I thank Ann McKay Bryson, whose leadership of this initiative over the past two years has been both visionary and tireless. I have learned so much from her and had a wonderful time doing so. I also thank Michael Kerosky, her predecessor as the leader of the project, for his commitment to positive youth development and his work building the resilience of all youth in Anchorage. I also thank him for the bunny boots.

I would also like to thank the staff members of the Anchorage School District who sat with me to talk about their work, and who provided me with documents and data. The enthusiasm that many of them feel for building a strong foundation for social and emotional learning in ASD is palpable.

I would also like to recognize the contributions of other staff members at AIR who contributed to this effort. In particular, Elizabeth Spier and Olivia Padilla for their work on the School Climate and Connectedness Survey and Brian Lundgren for his research support with the many pre- and post-tests. Finally, I thank David Osher for introducing me to ASD, and for his many years of masterful mentorship.

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Introduction

Context

Anchorage is the urban hub of Alaska and home to more than 290,000 people (including about 40 percent of all Native Alaskans). The city is challenged by rapidly changing demographics: a large inflow of immigrants from Asia, Latin America, the Pacific Islands, Eastern Europe, and Africa, as well as a growing influx of Alaska Natives from remote communities. Anchorage is also home to two major military bases, and Anchorage schools serve a large number of students from military families.

The Anchorage School District (ASD) is the 93rd-largest district in the United States, serving about 50,000 students in 100 schools in a 100-square-mile enrollment area. The student body is culturally, economically, and intellectually diverse. Of the district students, 48.1 percent are White, 12.6 percent are Multi-racial, 10.2 percent are Asian, 9.9 percent are Latino/Hispanic, 9.0 percent are Alaska Native/American Indian, 6.3 percent are African American, and 4.0 percent are Native Hawaiian or other Pacific Islander. ASD students speak 91 different languages at home. The five most common foreign languages spoken at home are Spanish, Hmong, Samoan, Tagalog, and Yup'ik.

For the past 15 years, the Anchorage School District (ASD) has been actively promoting, teaching and implementing a positive youth development-based approach to the prevention of risk behaviors. Rather than focusing on risk factors, this approach acknowledges that youth do not just need to move away from risky behaviors, they need to actively develop competencies that enable them to successful and make good life choices (Pittman & Cahill, 1991). The common refrain among those engaged in youth development is: "problem free is not fully prepared" (Pittman, Irby, Tolman, Yohalem, & Ferber, 2003).

In the late 1990s, ASD's approach was organized around the Search Institute's Developmental Assets Framework (Benson, 2003; Scales, Benson, Leffert, & Blyth, 2000). In 2006, ASD embraced a social and emotional learning framework and formally adopted standards that specify what all students should know and be able to do with respect to self-awareness, self-management, social awareness, and relationship skills. Beginning in 2006, ASD began annual measurement of school climate and student connectedness using a survey that included both risk behavior and social and emotional learning scales.

Second Order Change Project

After about a decade of work to reduce risk and improve resilience, ASD noticed that a persistent challenge in getting to the outcomes they envisioned related less to student behavior and more to the behavior of adults in the system. ASD decided to work on improving the quality of adults' interactions with students in schools. The rationale was that if a student's interactions with the adults in a school could be truly strengths-based, then the quality of all facets of his/her learning, feelings about self, and interaction with others would improve.

ASD hypothesized that there are a good number of adults in schools that do their best to offer high quality interactions to each student, and notice/reflect and self-correct on the interactions that do not work. However, there are many adults who are not fully conscious of how their own behavior affects students, and who could do more to model, recognize, and reinforce positive social and emotional skills.

Consequently, ASD's project under the Cook Inlet Tribal Council's block grant targeted what they termed "second order" systems change for prevention and intervention programming. Rather than focusing on students directly, this project would focus on adults and help them change the way they interact with young people.

The logic model for the Anchorage School District component of the initiative (Exhibit 1Exhibit 1) shows the hypothesized steps between training teachers, principals, and other school staff to improve the ways they interact with students and students' risk behaviors, including substance use. Ultimately, the desired outcome is reduced substance use, particularly for Native Alaskan students.

Exhibit 1. Logic Model for the Second Order Change Project
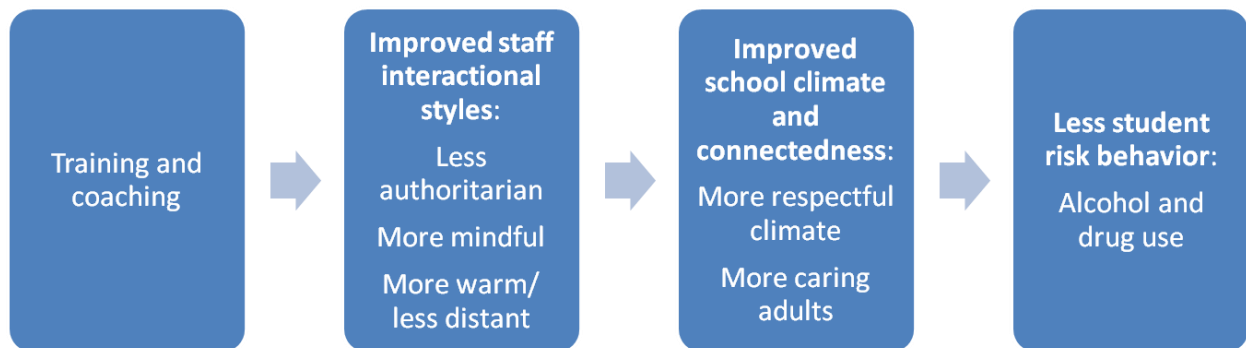
A recent meta-analysis of hundreds of studies of school-based SEL interventions for students (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011) has established that student SEL is malleable (the effect size for this outcome domain was a strong 0.61). A smaller body of research has shown that outside of therapeutic settings, adults' emotional competencies can also be improved through intervention. In two studies, groups participated in a workshop focused on social and emotional skills. Scores on the post assessment for the first sample ranged from .02 standard deviations to .75 standard deviations higher than the pre-assessment scores, with an average effect of .33, which corresponds to approximately an 11% improvement. In a second sample, the effect size was .70, or approximately a 24% improvement (Sala, 2002).

A large body of research has documented a strong relationship between "school climate" and student health outcomes, including alcohol, tobacco, and other drug use (Catalano et al., 2004;

Kuperminc et al., 1997; 2001; Loukas & Robinson, 2004; Maddox & Prinz, 2003; Roeser & Eccles, 1998; Roeser et al., 2000; Simons-Morton et al., 1999; Welsh, 2001) . Mayberry, Espelage, and Koenig (2009) reported that a positive school climate and a positive sense of community were associated with less adolescent substance use. Coker and Borders (2001) reported that relationships with positively influencing adults (e.g., teachers) in the eighth grade fostered the formation of positive relationships with peers and inhibited binge drinking behavior in the tenth grade. Henry and Slater (2007) showed that regardless of a student's own level of school attachment, students who attended schools where the pupils overall were attached to school were less likely to use alcohol, had lower intentions to use alcohol, and perceived that fewer of their peers used alcohol. Research using data from the National Longitudinal Study of Adolescent Health showed that school connectedness (which included indicators such as students' perceptions that teachers care about them and their feeling close to others at school) was associated with lower levels of violence, tobacco, marijuana, and alcohol use, and delay in sexual intercourse (Bonny et al., 2000; Resnick et al., 1997).

LaRusso, Romer, and Selman (2008) used structural equation modeling to examine the specific mechanisms through which school climate relates to improved student health outcomes. They found that students who perceived their teachers to be supportive and sensitive to their needs were more likely to experience favorable climates of respect and to feel a sense of social belonging in their school. In addition, students' experience of a respectful climate was related to lower rates of school drug use, fewer friendships with risky peers, and stronger perceptions of healthy school norms. Overall, schools that promote respect in relations between students and adults were more likely to engender healthy norms of behavior than schools that focus on control of behavior without regard for student needs and perspectives.

The findings from the LaRusso et al. (2008) study also reinforced the idea that the way teachers, as well as other school authority figures, relate to students and respond to their problems can be a powerful factor in producing a favorable school climate for adolescents. Empirical support for respect as a pathway from climate to student health outcomes also includes Ryan and Patrick's (2001) finding that teacher encouragement of mutual respect was the strongest predictor of changes in academic efficacy and self-regulation in middle schools, and Welsh's (2001) report that perceptions of respect for students was the most important predictor of perceived safety and risk behavior in middle school. Such findings suggest that teachers who cultivate a climate of respect in high schools would do a better job of creating health-enhancing norms of behavior than teachers who primarily focus on enforcing rules. In addition, respectful climates may engender less risk taking, not only by encouraging adherence to healthy school norms of behavior, but also by discouraging attraction to peers who engage in health-risk behavior (Loukas et al. 2006). Studies based on the Monitoring the Future Project, a nationally representative study of health risk behavior, additionally support the importance of school norms for risk behavior (Kumar et al., 2002). Results from those data showed that individual cigarette use, heavy drinking, and marijuana use were more likely when school-level norms reflected approval of substance use.

Methods

Participants

As of September 30, 2012, ASD's Second Order Change grant provided professional development to 1,946 individuals. Some of them participated in multiple events, so the total enrollment in all PD offerings was 2,670. Participants worked at a total of 99 schools, which represents 98% of all ASD schools, plus many departments in the Administration Building.

Exhibit 2. Participants in ASD Second Order Change Professional Development Events

Role	Number
Pk–12 classroom teachers	1,257
Principals & assistant principals	480
Supervisors, directors and cabinet	69
Specialist teachers (e.g., Music, Art, ELL, Gifted, Librarians)	96
Special education teachers	86
Counselors	115
Teacher experts / content specialists	127
Teacher assistants / tutors	94
Security	35
Administrative assistants & clerical staff	38
Noon (playground) supervisors	83
Nurses	28
Other (e.g. custodians, union representatives, graduation support coaches, psychologists, parents & community members)	162

Training for Teachers, Principals, and Other Staff

The training activities spanned a variety of programs that varied in the strength of their scientific evidence but which all represent best practices in strengthening teacher-student relationships and building respectful school climates. Trainings included the following programs.

Resolving Conflict Creatively Program

Resolving Conflict Creatively Program (RCCP) is a universal, school-based intervention involving violence prevention and intergroup understanding that was developed collaboratively by Educators for Social Responsibility and the New York City Board of Education. The main goal of RCCP is to change the mental and behavioral strategies that lead children to engage in aggression and violence by teaching them constructive conflict resolution strategies and promoting positive intergroup relations. Specific program objectives are to (a) make children aware of the different choices they have besides passivity or aggression for dealing with conflicts, (b) help children develop skills for making those choices real in their own lives, (c) encourage children's respect for their own culture and those of others, (d) teach children how to identify and stand against prejudice, and (e) make children aware of their role in creating a more peaceful world. The intervention has two major components: (a) training and coaching of teachers to support them in implementing a curriculum in conflict resolution and intergroup understanding (*teacher training and coaching*) and (b) the delivery of that curriculum via

classroom instruction for children provided by the trained teachers (*classroom instruction*). Additional features of RCCP include peer mediation, principals' training, and parent training (see Aber, Brown, Chaudry, Jones, & Samples, 1996; Brown, Roderick, Lantieri, & Aber, 2004). RCCP is listed as an "effective" program in the Office of Juvenile Justice and Delinquency Prevention's 2007 Model Programs guide.

National Coalition Building Institute

The National Coalition Building Institute (NCBI) is a non-profit leadership development network dedicated to the elimination of racism and other forms of oppression. Rooted in an understanding of individual, community, and systemic change, NCBI leaders work with public and private organizations to further cultural competence, collaboration and partnerships, and effective relationships within and across group identities (see Brown & Mazza, 1991, 1996). Although there have not been research studies done on the NCBI program, the principles around which it is organized are consistent with best practices in human relations training (Karp & Sammour, 2000; Roberson, Kulik, & Pepper, 2001).

Life Space Crisis Intervention

Life Space Crisis Intervention (LSCI) is a competency-based approach to intervening with students who are experiencing emotional pain, psychological distress, or behavioral disruption in their personal lives (Forthun, McCombie, & Freado, 2006). LSCI is used to help classroom teachers, guidance counselors, administrators, and other school staff to promote positive development and reduce the likelihood of negative consequences due to poor decision making. The skills encourage educators to focus on the specific pattern of self-defeating behavior rather than get bogged down in attempts to determine who is at fault and who should be disciplined. The overall goal of LSCI is to encourage more adaptive problem-solving behaviors among students (Long, Fecser, & Wood, 2001). Forthun, Payne, and McCombie (2009) documented positive effects of LSCI on both student behaviors and educators' attitudes.

Response Ability Pathways

Response Ability Pathways (RAP) methods are grounded in resilience, brain science, and positive psychology (Brendtro, Brokenleg, Van Bockern, 1990) and offer methods for positive behavior support and creating climates of respect in schools. Rather than enforcing obedience, RAP sets high expectations for youth to take responsibility and show respect for themselves and others. RAP intends to develop the strength and resilience of young persons.

Conscious Discipline

Conscious Discipline (CD) is a comprehensive classroom management program and a social-emotional curriculum. It is designed to make changes in the lives of adults first, who, in turn, effect improved outcomes for students. CD teaches adult the "Seven Powers for Self Control" that help them to change their perception of and relationship with conflict, and be proactive instead of reactive during conflict. Additionally, "Seven Basic Skills of Discipline" help adults respond to conflict in such a way as to transform conflict into teaching moments for students. Hoffman, Hutchinson, and Reiss (2009) found that early childhood teachers who participated in a Conscious Discipline program reported improved perceptions of school climate and better knowledge and use of classroom management techniques.

Discipline with Dignity
Discipline with Dignity (Curwin & Mendler, 1988) is a flexible program for effective school and classroom management that teaches responsible thinking, cooperation, mutual respect, and shared decision-making. It is based on teaching students *responsibility* rather than on punishment. The notion is that more students change their behavior when they are given instruction on how to behave in the future, rather than simply being admonished for behaviors in the past. In addition, educators can benefit from watching their own behavior; in dealing with students, other faculty, and administrators, teachers should model the behavior they want from students. For example, when teachers are angry with students, they need to express that anger in the same way they want students to express anger with their classmates.

Breaking Ranks in the Middle/Middle School Matters
Breaking Ranks in the Middle (BRIM) training (NASSP, 2006) offers participants the tools and strategies to address and deal with the unique challenges facing middle level leadership including personalization, advisories, teaming, transition from elementary and transition to high school, use of data and other critical topics. The training program's design includes an interactive format for small and large group discussions, problem-solving assignments, as well as analysis and reflections necessary for meaningful comprehension and learning. The goal of this training program is to facilitate reform efforts by school leadership teams for the improvement of student learning and development of successful schools.

Additional Classes
The ASD Social and Emotional Learning Department created several of their own courses to better meet local needs. Among these were:
- Social and Emotional Learning Inquiry Class
- Building Resilience in Trauma-Impacted Youth and Families
- Secondary Principals Listening Circle
- Reinforcing Social and Emotional Learning
- SEL Training for Noon Duty Staff

Measures

Training-Specific Pre- and Post-Course Inventories. For each of the courses offered, the evaluator worked with the course instructor and ASD SEL Department staff to create brief assessments of the knowledge, behaviors, and attitudes that each course aimed to affect. These inventories were administered using the Survey Monkey platform. Email addresses of all course registrants were supplied by the instructor and/or the SEL department, and invitations to complete the online measures were sent via email. Non-respondents received up to three email reminders to complete the measure.

Over the three years of the project, 59 separate online instruments were created. A total of 2,726 (non-unique) respondents completed the various pre and post measures.

Adult Interactional Style Inventory (AISI). The AISI was composed of the three component surveys listed below. Registrants in any Second Order Change course (at any time over the course of the three year project period) were invited to take the AISI at pre-test. All participants who completed an AISI at least once were invited to participate in a 1-year follow up during

February 2011, and a second follow-up in February 2012. Participants in the follow up AISI waves of measurement were offered an incentive: two iPads were raffled off to respondents with completed surveys at each wave of follow up measurement.

The three measures composing the AISI are as follows:

- *Interpersonal style* was measured using Locke's Circumplex Scales of Interpersonal Values (Locke, 2000). The interpersonal circumplex is structural model for representing interpersonal dispositions. It is typically defined with reference to the orthogonal dimensions of dominant/yielding and friendly/distant (see Exhibit 3Exhibit 3). The interpersonal circumplex has been used to describe, organize, and compare interpersonal adjectives, personality measures, interpersonal transactions, interpersonal problems, and personality disorders. The Circumplex Scales of Interpersonal Values have been found to be reliable and valid in multiple samples (Locke, 2000).

Exhibit 3. The Interpersonal Circumplex Model
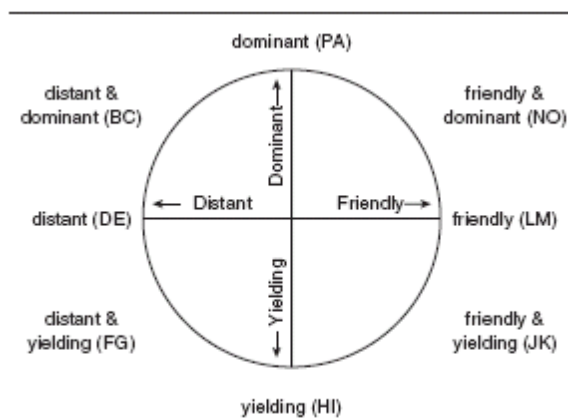
Figure 1   The interpersonal circumplex.

- *Authoritarianism*. The commonly used circumplex dimensions have also been used to identify types of parenting (Baumrind, 1966), with "authoritative" parenting being in the dominant and friendly quadrant, "authoritarian" parenting being in the dominant and distant quadrant, and "permissive" parenting being in either of the yielding quadrants (with "neglectful" parents in the distant/yielding quadrant and "indulgent" parents in the yielding/friendly quadrant; Lamborn, Mounts, Steinberg, & Dornbush, 1991). Thus, we sought to strengthen our assessment of approaches to students with a measure of authoritarianism. The *Parental Modernity Scale* (originally developed by Shaffer & Edgerton, 1985) is used to measure authoritarian (traditional) beliefs and has been adapted for use by teachers in multiple studies, including the NICHD Study of Early Child Care and Youth Development and the national study of Early Head Start. In unpublished research, Dr. Bridget Hamre of the Center for the Advanced Study of Teaching and Learning (CASTL) at the University of Virginia stated that it is "a measure of authoritarian/authoritative teaching that we've used in lots of studies that actually

relates quite highly to observed [teaching]. Some of the items seem quite dated, but it works."

- *Mindfulness* is a construct common across multiple training programs offered through the Strengths-Based Prevention project, as it is an underlying strategy for adults' own self-control and social-emotional competence in interactions with students. Jennings and Greenberg (2009) developed a measure of teachers' mindfulness that is hypothesized to underlie the maintenance of supportive teacher-student relationships, effective classroom management, and successful social and emotional learning program implementation. Although this measure does not have its own evidence base yet, it is in use in two research projects funded by the US Department of Education's Institute for Education Sciences.

Alaska School Climate and Connectedness Survey (SCCS). The schools' learning environment was assessed using the Alaska School Climate and Connectedness Survey (SCCS) (Kendziora, Osher, & Spier, 2005). This survey was originally developed as part of a statewide study for the Alaska Association of School Boards. The student version measures three school climate scales: High Expectations, School Safety, and School Leadership; as well as four connectedness scales (Respectful Climate, Peer Climate, Caring Adults, and Community Involvement). An additional SEL scale was written to directly assess the 15 Anchorage Social and Emotional Learning Standards, and further items collect perceptions of the frequency of Delinquent Behaviors and Drug and Alcohol use. The staff version of the survey supplies an overall climate factor that is the mean of six scales: School Leadership, Respectful Climate, Staff Attitudes, Parent and Community Involvement, Student Involvement, and School Safety, plus reverse-coded Student Delinquency and Drug and Alcohol Use scores.

The SCCS was first administered in 2005 to 38 schools in 12 districts across Alaska, including eight schools in Anchorage (with a valid sample size of 456 staff and 4,092 students). In 2006 and 2007, Anchorage administered the survey district-wide (with all staff and students in grades 5–12), significantly increasing the sample size. In all, 148 schools in 15 districts across Alaska completed the survey, with a sample of 3,453 school staff and 24,732 students. In 2007, some districts took the survey in the fall as baseline for a multi-site digital learning initiative, and in the spring 150 schools in 14 districts (3,315 school staff and 22,411 students) completed the survey. The history of administering this survey district-wide in Anchorage for the past two years provides a helpful baseline for assessing change in school climate (and students' SEL skills) as a function of the intervention, allowing us to examine each principal's building in a single-subject time series analysis.

After years of development, the SCCS has been refined and has demonstrated solid reliability. The average internal consistency across the staff scales is 0.87 (range=0.78 to 0.94) and for the student scales is 0.77 (range=0.64 to .87). Additionally, the SCCS has shown not only strong cross-sectional correlations with school-wide student achievement and schools' Adequate Yearly Progress status, but also *positive change* in school climate and connectedness is related to significant gains in student scores on statewide achievement tests (Spier, Cai, Kendziora, & Osher, 2007).

The SCCS includes a 3-item scale in which students rate their perceived frequency of drug and alcohol use at school or school events (including seeing students under the influence of drugs, alcohol, or inhalants; $\alpha = .76$). This scale score will be complemented by results from the Youth Risk Behavior Survey, which is administered in Anchorage every two years (including 2005, 2007, and 2009). These data are also available by subgroup.

Native Alaskan Subgroup. The SCCS includes a demographic section in which basic student data are recorded (e.g., grade, gender, ethnic group). All data will be reported separately for Native Alaskan students as long as there are 10 or more students per group. Results will be suppressed when there are 9 or fewer students to protect student privacy.

Data Analysis

Basic descriptive statistics were used to examine outcomes on all measures administered. Scoring was as follows:

- **Pre and post tests** for training classes: means across all respondents were presented for each item in the reports to ASD. Results in this report summarize only the paired t-tests that were done comparing the pre- and post-training event responses for only those individuals who took the instrument both times. Pre- and post-test responses were matched using email addresses.
- The 64 questions on the **interaction style** survey were scored according to the developer's instructions (available at http://www.class.uidaho.edu/klocke/csiv.htm). Although personality researchers may be interested in scores for each X, Y, and diagonal axis, for this report we focused on scores for the four major poles: dominant, friendly, yielding, and distant. Separate forms were created for teachers (using the phrase, "with my students"), other school staff ("with students"), and principals ("with my staff").
- **Authoritarianism** was computed as the mean of the 16 items; scored on a scale of 1 to 5 (strongly disagree to strongly agree). The same form was used for all roles.
- **Mindfulness** was scored as the mean of the 22 items, with responses on a scale of 1 (never true) to 6 (almost always true). Separate forms were created for teachers (using the phrase, "with my students"), other school staff ("with students"), and principals ("with my staff").
- **School Climate and Connectedness Survey** scales were scored and reported by Dr. Elizabeth Spier as part of a separate task. Data from her report that show the means for each relevant scale over time (2006 to 2012) are shared here. Results from both the student and the staff surveys are presented. In addition, means for just the Native Alaskan subgroup were computed and are presented in this report.

Beyond the descriptive statistics just mentioned, a simple two-level hierarchical linear model (HLM) was used to estimate the change over time in outcomes for participants in Second Order Change training events. Time was the level one variable, and respondents were level two. Only the 480 respondents who completed the measure on at least two occasions were included in the HLM analyses.

Results

Effectiveness of Training

For the large majority of training events, participants were asked to complete online pre- and post-tests. After the post-course data were completed, the evaluator prepared reports that described the respondents, presented descriptive data for pre- and post-test scores, and shared results of paired t-tests for just those respondents who took the measure at both pre and post. A total of 47 reports were submitted over the course of the project (some of these had only post-test feedback and no significance testing).

Pre-post testing showed at least some significant improvement in every instance. The average proportion of items showing significant improvement from pre to post is listed in Exhibit 4 by class type. In addition, comments provided by course participants tended to be quite positive.

Exhibit 4. Average Pre- to Post-test Item Differences by Training Type

Course	Number of pre-post item set analyses	Number of items in each analysis	Average percentage of items showing significant change
Resolving Conflict Creatively Program, Connected & Respected	18	12	55%
Life Space Crisis Intervention	4	10	80%
Response Ability Pathways	1	17	53%
Breaking Ranks in the Middle	3	12	61%
Discipline with Dignity	1	17	53%
Conscious Discipline	1	11	73%
SEL Inquiry	2	4	88%
Trauma-Informed Education	3	8	91%
Noon Duty Staff	1	24	46%

Interaction Style

The logic model for the Second Order Change project posited that participating in training events sponsored through the grant should result in participants being more friendly and less distant with student (and for principals, with their staffs). We did not hypothesize that there would be any effects for dominance. The results were partially borne out: for teachers and other school staff, friendliness did not increase over time, but distance did decrease significantly. Means for all respondents are shown in Exhibit 5.

Exhibit 5. Circumplex Scale of Interpersonal Values: Teachers & Other School Staff
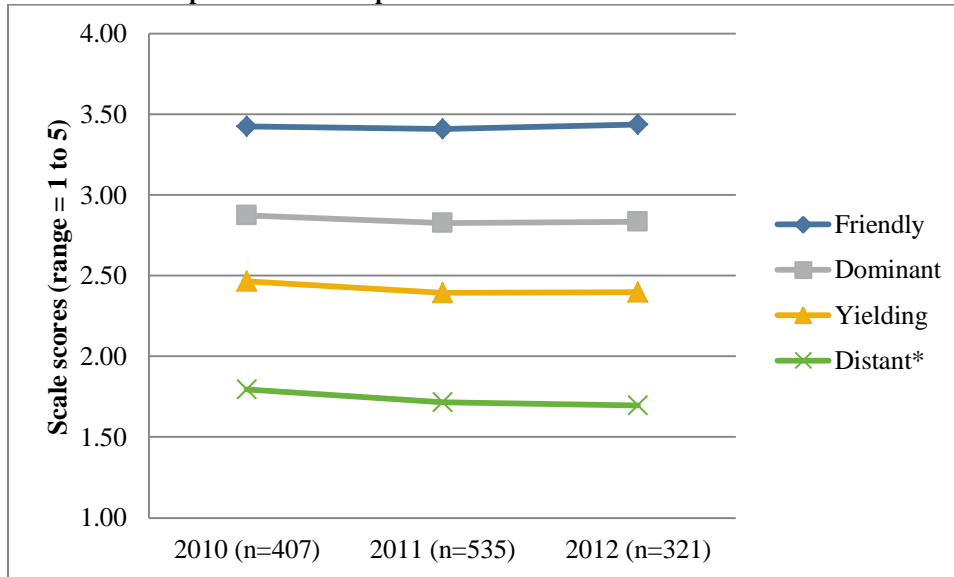
The results of the hierarchical linear models testing the intercepts and slopes of friendliness and distance for teachers and other school staff are shown in Exhibits 6 and 7.

Exhibit 6. HLM Results: Friendliness, Teacher and Other School Staff

Fixed Effect	Coefficient	Standard error	T-ratio	Approximate d.f.	P-value
Intercept	3.416008	0.056109	60.882	413	0.000
Slope over time	0.003104	0.025023	0.124	855	0.902

Exhibit 7. HLM results: Distance, Teachers and Other School Staff

Fixed Effect	Coefficient	Standard error	T-ratio	Approximate d.f.	P-value
Intercept	1.817814	0.047035	38.648	413	0.000
Slope over time	-0.048631	0.020924	-2.324	855	0.020*

The results for principals are shown in Exhibit 8. There were many fewer principals who participated, and so there was less power to detect effects if they existed. Although friendliness did increase and distance did decrease, these changes were not statistically significant, as shown in Exhibits 9–10.

Exhibit 8. Circumplex Scale of Interpersonal Values: Principals
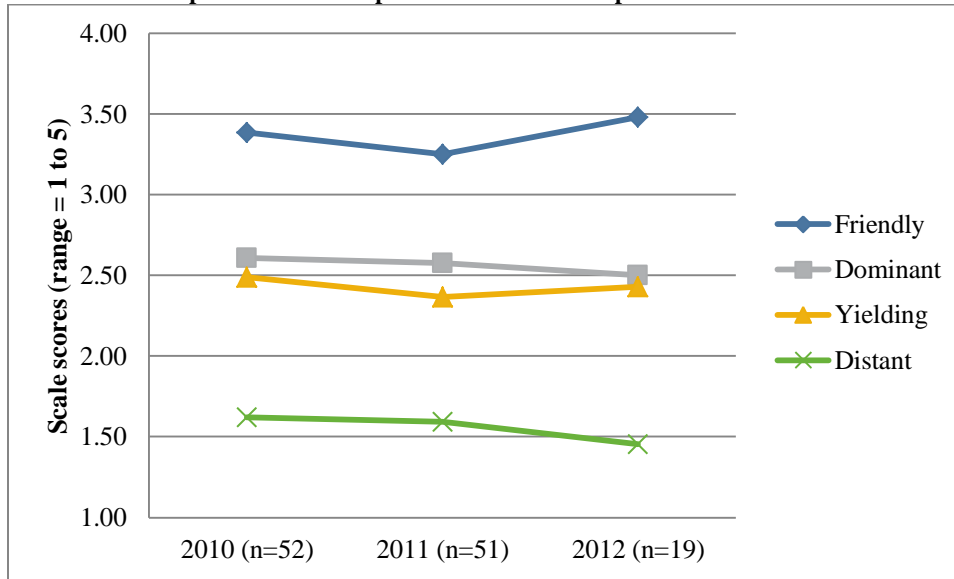
Exhibit 9. HLM Results: Friendliness, Principals

Fixed Effect	Coefficient	Standard error	T-ratio	Approximate d.f.	P-value
Intercept	3.269360	0.107779	30.334	63	0.000
Slope over time	0.040728	0.053688	0.759	144	0.449

Exhibit 10. HLM Results: Distance, Principals

Fixed Effect	Coefficient	Standard error	T-ratio	Approximate d.f.	P-value
Intercept	1.688724	0.095052	17.766	63	0.000
Slope over time	-0.007957	0.048978	-0.162	144	0.872

We did test the change for the other scores over time as well, and found that there were no changes in dominance or yielding.

One of the advantages of a circumplex model is the opportunity to represent findings in a two-dimensional space. Exhibit 11 shows the space defined by the dimensions of yielding-dominance and distance-friendliness. Results show that teachers clustered in the upper right quadrant in each of the three years, moving slightly up (more dominant) and to the right (more friendly) each year. Principals' results were much less stable, with relatively wide variation in dominance each year, and some movement toward greater friendliness over time.

Exhibit 11. Circumplex Scale of Interpersonal Values: Findings for Teachers & Staff and Principals by Year
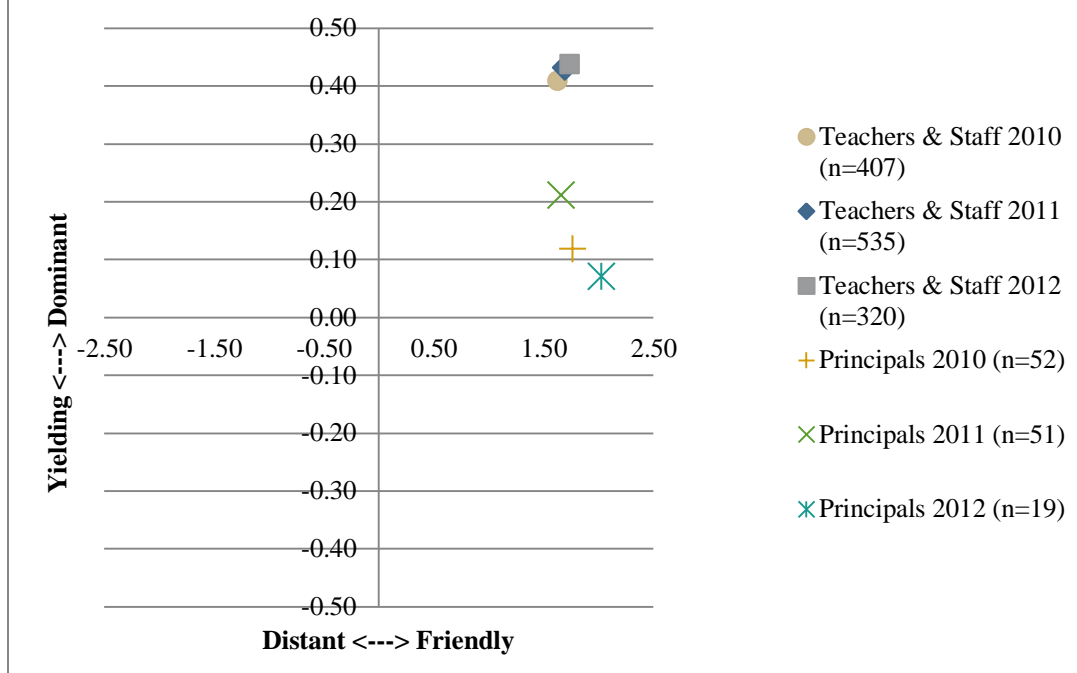
Authoritarianism

No significant change over time was observed for authoritarianism (see Exhibits 11 and 12). Authoritarian styles are generally both dominant and distant; the fact that we saw decreases in distance and, as hypothesized, no changes in dominance are consistent with no overall shift for this measure.

Exhibit 12. Authoritarianism Over Time

Note: changes are not statistically significant
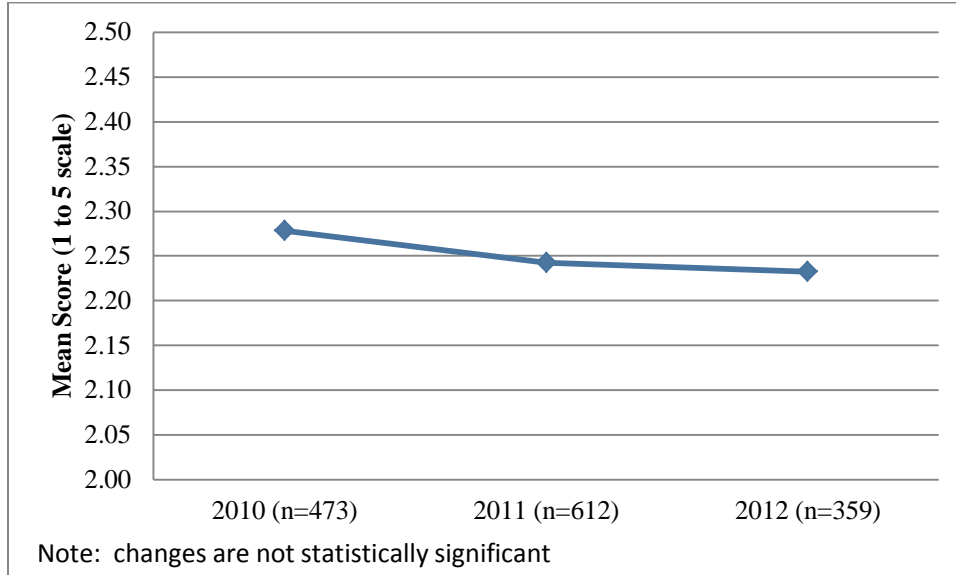
Exhibit 13. HLM Results: Authoritarianism, All Respondents

Fixed Effect	Coefficient	Standard error	T-ratio	Approximate d.f.	P-value
Intercept	2.230836	0.049143	45.395	477	0.000
Slope over time	0.000651	0.022008	0.030	1042	0.977

Mindfulness

Mindfulness is perhaps a less familiar construct than the others, but improvements in reflective practice were an important hypothesized outcome for the Second Order Change participants. Sample items on the mindfulness measure include:

- When I am teaching it seems I am running on automatic without much awareness of what I'm doing.
- I try to be understanding and patient towards those aspects of my class I don't always like.

Results (Exhibits 13–15) showed significant improvement for teachers and other school staff, but once again, not for principals. Once again the numbers of principals was much lower than the other groups, which gives us less power to detect effects where they might exist. Descriptively, we see that mindfulness improved for all groups over the course of the project.

Exhibit 14. Mindfulness Scores by Group
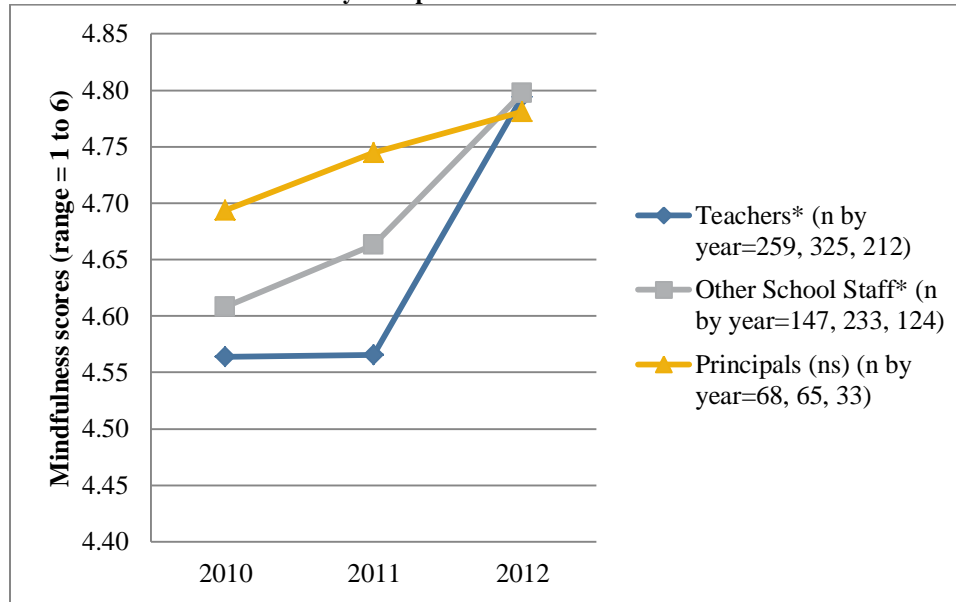
Exhibit 15. HLM Results: Mindfulness, Teachers and Other School Staff

Fixed Effect	Coefficient	Standard error	T-ratio	Approximate d.f.	P-value
Intercept	4.401024	0.046804	94.031	419	0.000
Slope over time	0.128839	0.020804	6.193	916	0.000

Exhibit 16. HLM Results: Mindfulness, Principals

Fixed Effect	Coefficient	Standard error	T-ratio	Approximate d.f.	P-value
Intercept	4.727399	0.122670	38.537	63	0.000
Slope over time	-0.004282	0.060753	-0.070	138	0.944

Student School Climate and Connectedness Survey

Participants

All students in grades 5 through 12 in participating ASD schools were invited to take part in the survey. Participating schools included elementary, middle, high, charter and alternative schools. See Exhibit 17 for information regarding the numbers of schools and participants each year.

Exhibit 17. Anchorage Student Participants by Year

Year	Number of Schools	Students Grades 5–12 with Valid Surveys
2006	92	20,812
2007	92	18,162
2008	95	18,508
2009	96	18,813
2010	96	19,212

2011	95	13,531
2012	90	15,363

In 2012, the overall participation rate among Anchorage students in grades 5 through 12 was 53 percent.

Because surveys were completed anonymously, we are not able to compare scores from one year to the next using traditional repeated-measures statistics (although there is likely substantial overlap in respondents from one year to the next). We can, however, with a certain degree of confidence, ascertain whether observed differences in scores from year to year represent real shifts in responses among participants rather than chance fluctuation. We calculated an effect size (Cohen's d) to determine whether the differences in two mean scores and differences in the distribution of scores around those means (such as scale scores for Caring Adults from 2010 and from 2011) were substantial enough for us to be confident that there really has been a significant change in scores. Where differences were significant, changes are marked with an asterisk.

Student-Reported Respectful Climate
This scale reflects students' feelings about fairness of rules and respect for students' contributions. This scale is also included as part of the Overall Connectedness summary scale. The items comprising this scale (and the scale's reliability) are as follows *(α = .84)*:

44. Teachers here are nice people
46. My teachers treat me with respect
47. When students break rules, they are treated fairly
50. My teachers are fair
53. Our school rules are fair
54. It pays to follow the rules at my school

Students selected responses between 1 and 5, where 1 indicates a lack of a respectful climate and 5 indicates a highly respectful climate for students. Exhibit 18 shows that respectful climate has climbed steadily over time in all school types.

Exhibit 18. Student-Reported Respectful Climate Over Time by School Type

School Type	2006	2007	2008	2009	2010	2011	2012
ASD Elementary School Average	3.61	3.70	3.70	3.79	3.82	3.89	3.91
ASD Middle School Average	3.17	3.29	3.26	3.35	3.42	3.59	3.65
ASD High School Average	3.09	3.17	3.19	3.24	3.26	3.37	3.34
ASD Charter School Average	3.43	3.61	3.72	3.77	3.64	3.79	3.92
ASD Alternative School Average	3.56	3.72	3.66	3.75	3.74	3.84	3.98*
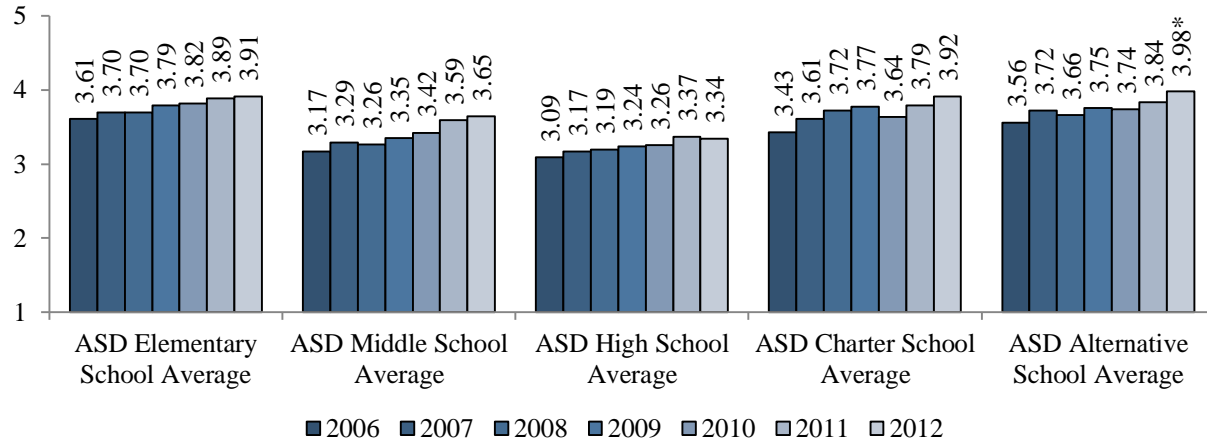
Student-Reported Caring Adults

This scale reflects students' feelings about how close they feel to adults in the school. This scale is also included as part of the Overall Connectedness summary scale. The items comprising this scale (and the scale's reliability) are as follows *(α = .72)*:

15. There is at least one adult at this school whom I feel comfortable talking to about things that are bothering me
16. At school, there is a teacher or some other adult who will miss me when I'm absent
17. There are a lot of chances for students in my school to talk with teachers one on one
26. I can name at least five adults who really care about me
27. Other adults at school besides my teachers know my name

Students selected responses between 1 and 5, where 1 indicates a lack of caring adult relationships and 5 indicates a high number of caring adult relationships at the school. Exhibit 19 shows that scores for Caring Adults have improved somewhat in 2011 and 2012 in elementary and middle schools, but have been flat in high schools.

Exhibit 19. Student-Reported Caring Adults Over Time by School Type

Legend: ■ 2006 ■ 2007 ■ 2008 ■ 2009 ■ 2010 ■ 2011 ■ 2012

ASD Elementary School Average: 3.73, 3.69, 3.69, 3.72, 3.75, 3.82, 3.83
ASD Middle School Average: 3.33, 3.34, 3.33, 3.31, 3.38, 3.54, 3.55
ASD High School Average: 3.35, 3.37, 3.36, 3.34, 3.36, 3.41, 3.38
ASD Charter School Average: 3.56, 3.69, 3.73, 3.69, 3.76, 3.76, 3.80
ASD Alternative School Average: 3.58, 3.75, 3.74, 3.74, 3.73, 3.77, 3.83
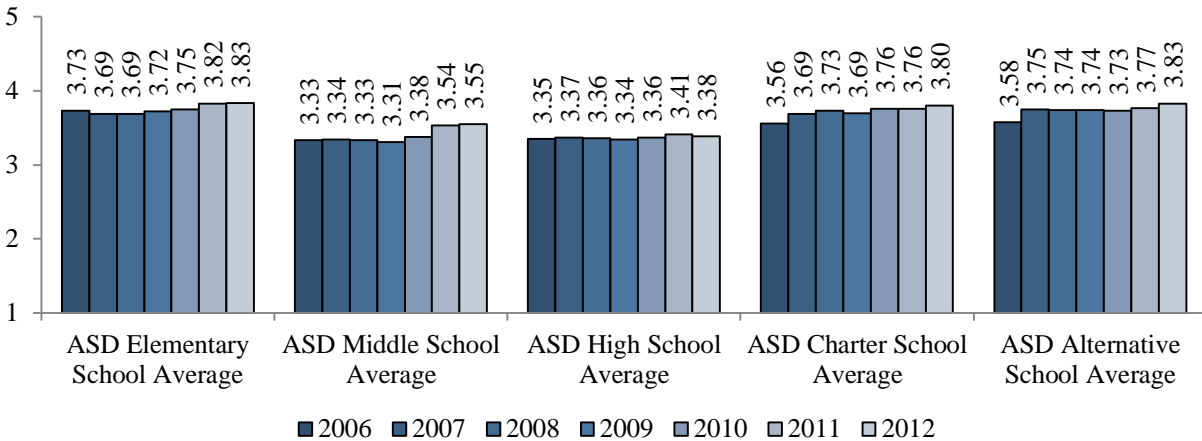
In addition to examining trends for all students over time, we also examined respectful climate and caring adult scores for three groups of students:

1. A weighted statewide average[i] of students in grades 5–12 who completed the survey (participation details are included in the endnote)
2. ASD results for students in grades 5–12
3. ASD Native Alaskan students in grades 5–12

Exhibit 20 shows that for students in grade 5 (and 6, where 6 is in an elementary school), ASD (the lines with circle markers) tended to have higher respectful climate and caring adult scores than the state overall. Native Alaskan student in ASD have reported the highest scores for respectful climate at school, but until 2012 trailed other groups in reporting the presence of caring adults. In 2012, Native Alaskan students scored the same as ASD students overall.

Exhibit 20. Elementary SCCS Scale Scores: Statewide, Anchorage, and Anchorage Native Alaskan Students
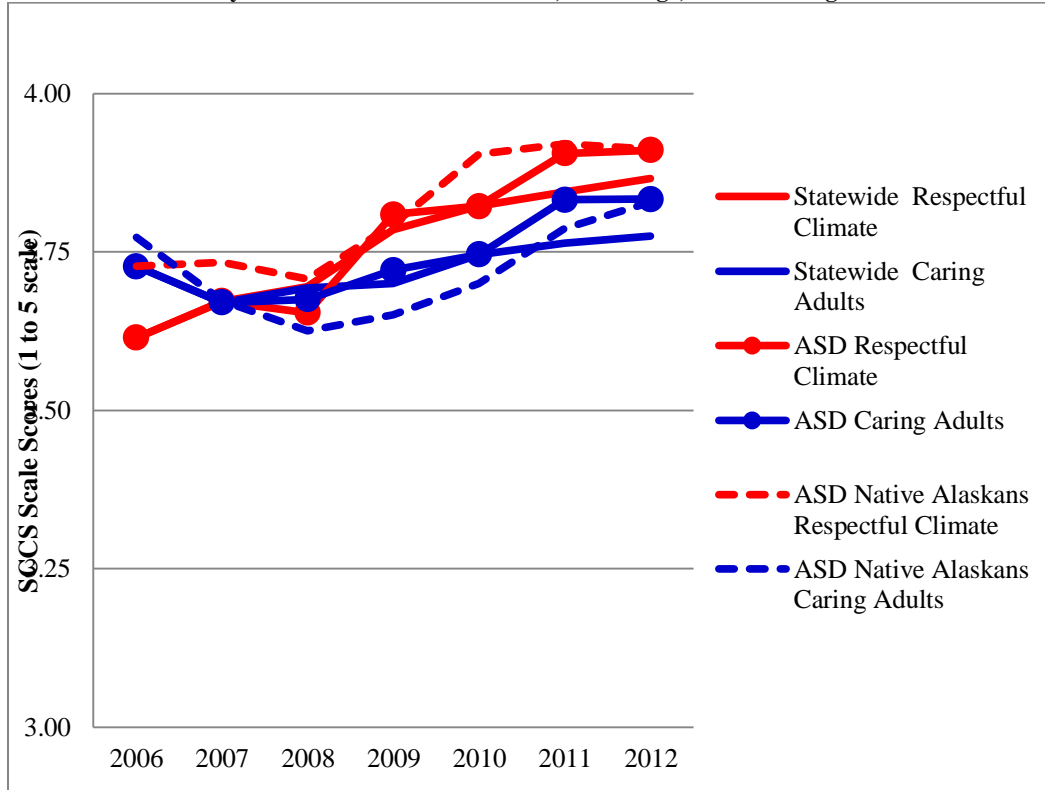
Exhibit 21 shows that for middle grade students, the patterns are similar, with ASD out-scoring the state for both scales, and ASD Native Alaskan students reporting the highest levels of respectful climate at school, but more moderate levels of caring adults.

Exhibit 21. Middle School SCCS Scale Scores: Statewide, Anchorage, and Anchorage Native Alaskan Students
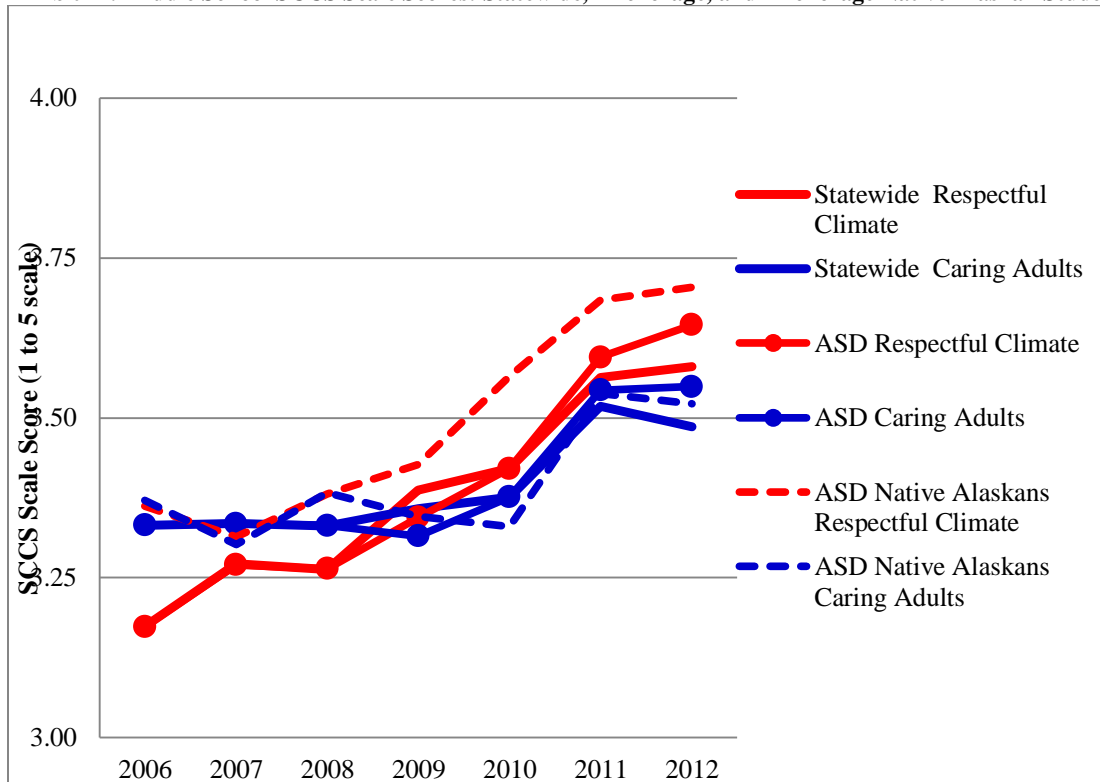
Among high school students (Exhibit 22), the patterns are different. At earlier grade levels, respectful climate scores tended to be higher than caring adult scores. The reverse is true in high school: caring adult scores tend to be higher than respectful climate at school. ASD no longer out-scores the state for these variables. Within ASD, Native Alaskan high school students did still report the highest levels of respectful climate, but had lower ratings for caring adults compared to students overall.

Exhibit 22. High School SCCS Scale Scores: Statewide, Anchorage, and Anchorage Native Alaskan Students
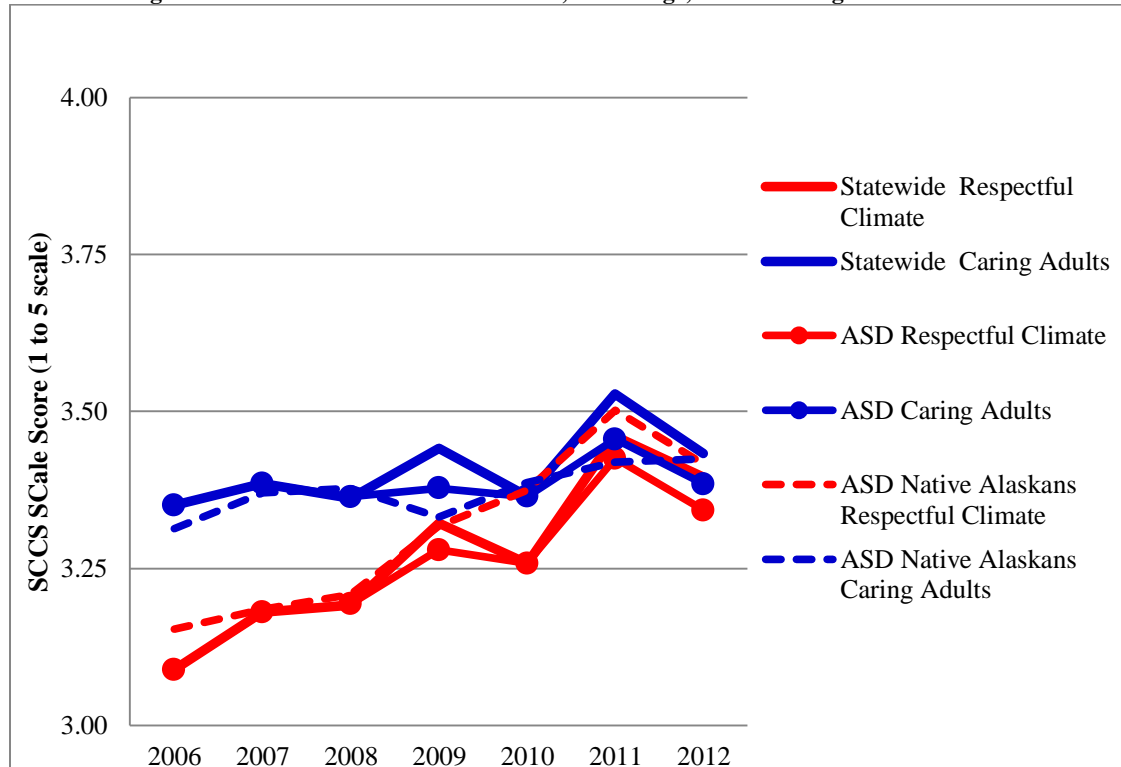
Student-Reported Risk Behaviors

This scale reports the number of times students reported observing other students' drug and alcohol use. The items comprising these scales (and the scales' reliabilities) are as follows.

Response categories are:
- 1 = 0 times
- 2 = 1–2 times
- 3 = 3–6 times
- 4 = 7–12 times
- 5 = More than 12 times

Student Drug and Alcohol Use (α =.73)
    56. Under the influence of drugs (marijuana, coke, crack)
    57. Under the influence of alcohol (beer/wine/liquor)
    62. Under the influence of inhalants (sniffing glue, paints, or aerosol sprays)

Student-reported levels of drug and alcohol use were quite low overall, with notable jumps in frequency across elementary, middle, and high school (Exhibit 23). Rates have been decreasing steadily over time.

Exhibit 23. Student-Reported Drug and Alcohol Use Over Time by School Type

Legend: ■ 2006 ■ 2007 ■ 2008 ■ 2009 ■ 2010 ■ 2011 □ 2012

ASD Elementary School Average: 1.15, 1.27, 1.25, 1.22, 1.22, 1.17, 1.16
ASD Middle School Average: 1.61, 1.66, 1.64, 1.52, 1.52, 1.37, 1.33
ASD High School Average: 2.52, 2.21, 2.13, 2.06, 2.03, 1.91, 1.96
ASD Charter School Average: 1.42, 1.43, 1.34, 1.28, 1.25, 1.23, 1.10*
ASD Alternative School Average: 2.01, 1.52, 1.49, 1.45, 1.49, 1.41, 1.43
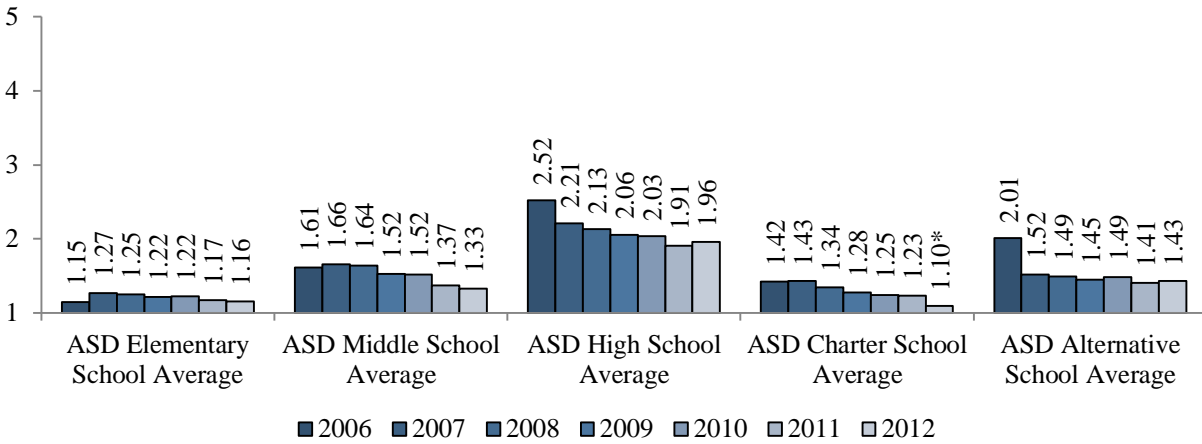
Exhibit 24 shows that for middle school students, statewide rates of drug and alcohol use have been similar in ASD and statewide, but rates for Native Alaskan students have consistently been lower. Both for Native Alaskan students and ASD students overall, rates of drug and alcohol use appear to have been decreasing more sharply than in the state overall.

Exhibit 24. Student-Reported Drug & Alcohol Use: Anchorage Middle Schools and Statewide Grades 5–12
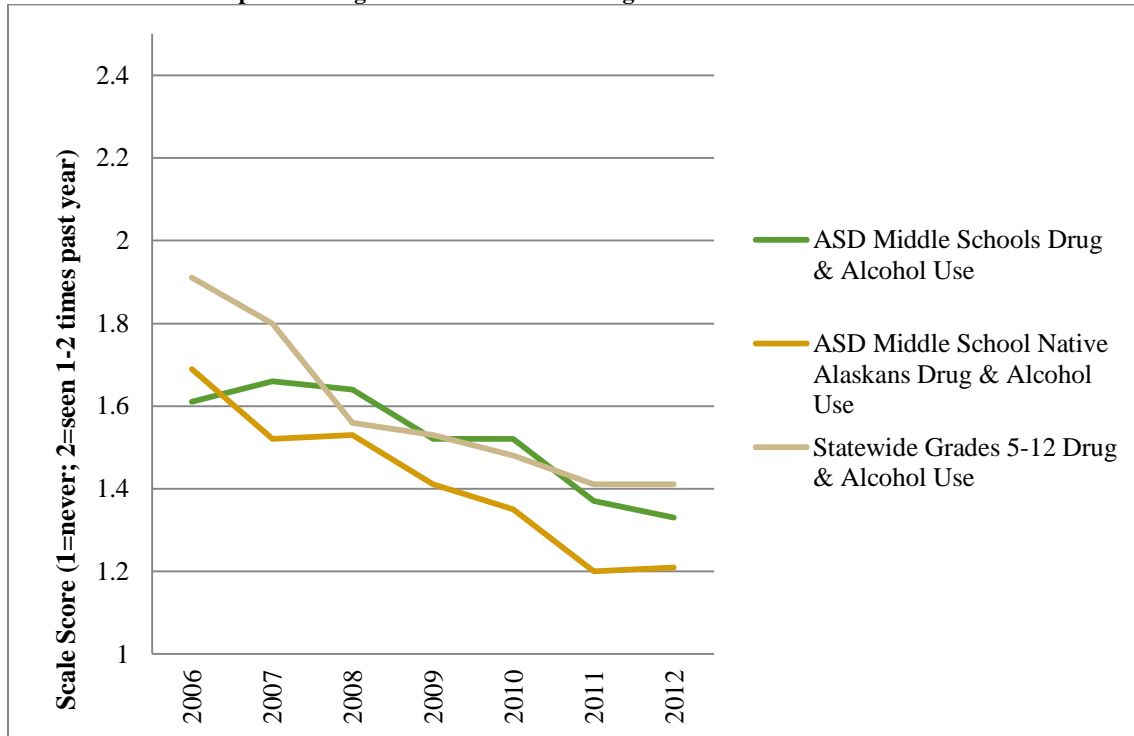
Exhibit 25 shows that for high school students, rates of drug and alcohol use have actually increased statewide between 2010 and 2012, with students across the state "catching up" to the relatively higher rates of drug and alcohol use among ASD high school students. In ASD, after years of decreasing usage, rates ticked up slightly in 2012. Rates for Native Alaskan students did show a steady and quite marked decline over time, with no increase in recent years.

Exhibit 25. Student-Reported Drug & Alcohol Use: Anchorage High Schools and Statewide Grades 5–12
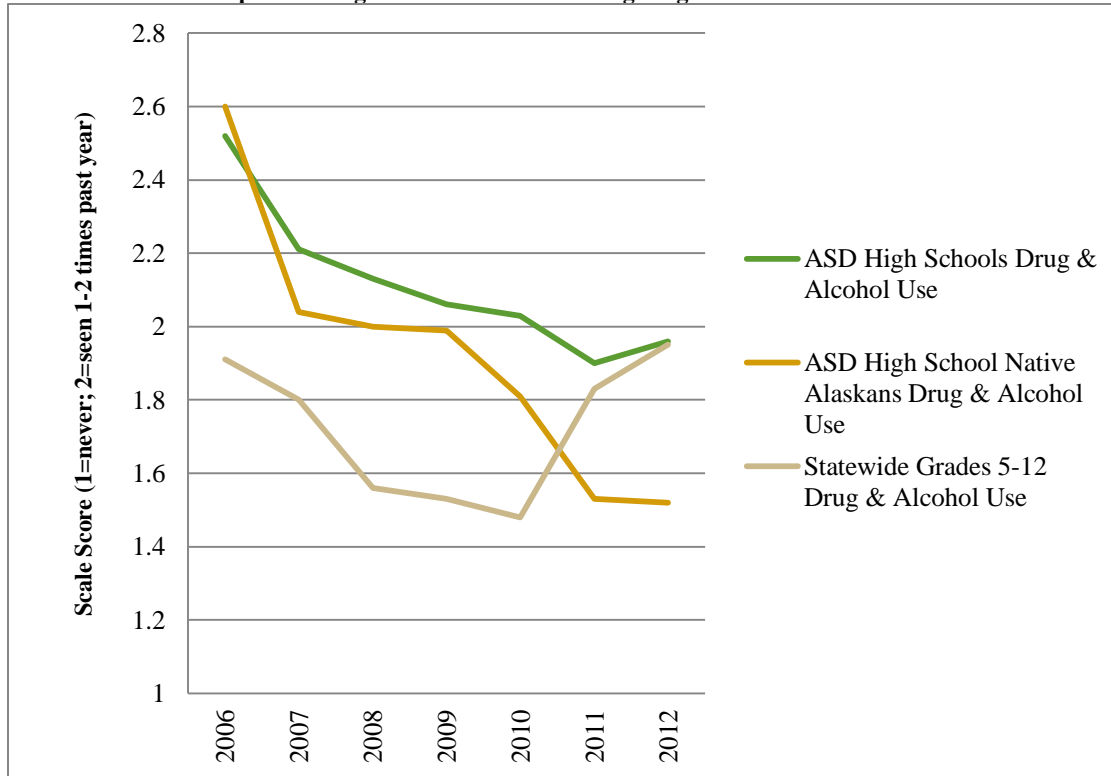
Staff School Climate and Connectedness Survey

Participants
All staff in participating Anchorage School District schools was invited to take part in the survey. Participating schools included regular primary schools, charter schools, and alternative schools. See Exhibit 26 for more information regarding the numbers of schools and participants each year.

Exhibit 26. Anchorage Staff Participants by Year

Year	Number of Schools	Total Staff with Valid Surveys	Teachers with Valid Surveys
2006	92	2,995	1,681
2007	92	2,905	1,644
2008	95	2,968	1,557
2009	96	3,437	1,845
2010	96	3,070	1,693
2011	95	2,675	1,525
2012	94	2,744	1,522

In 2012, the overall participation rate among Anchorage staff was 49 percent.

Staff-Reported Respectful Climate
This scale reflects staff members' feelings about how students treat each other and how well students and staff members treat one another. The items comprising this scale (and the scale's reliability) are as follows *(α =.86)*:

6. At this school, students and teachers get along really well
7. Students in this school help each other, even if they are not friends
11. Teachers and students treat each other with respect in this school
14. Students in this school treat each other with respect
16. The students in this school don't really care about each other (reverse scored)

Staff members selected responses between 1 and 5, where 1 indicates a low level of respect and 5 indicates a high level of respect. According to staff reports, ratings for respectful climate have been relatively flat overall, with a slight uptick for middle schools in 2011 and 2012.

Exhibit 27. Staff-Reported Respectful Climate Over Time by School Type
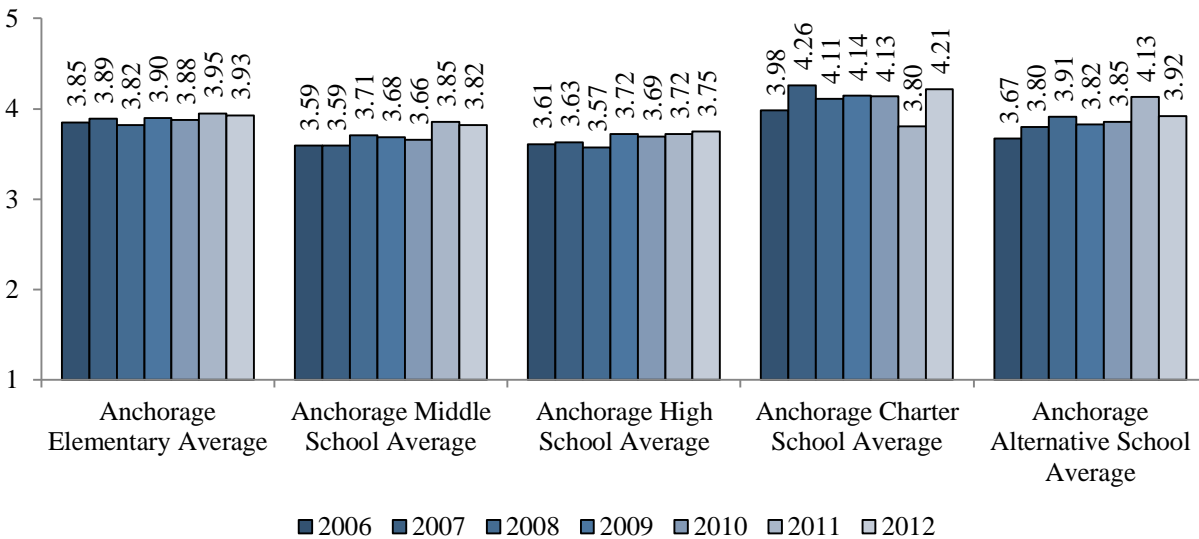
Staff-Reported Risk Behaviors
School staff responded to the same set of items pertaining to Risk Behaviors that the students were presented with:

Response categories are:
- 1 = 0 times
- 2 = 1–2 times
- 3 = 3–6 times
- 4 = 7–12 times
- 5 = More than 12 times

Student Drug and Alcohol Use (α =.64)
    39. Under the influence of drugs (marijuana, coke, crack)
    40. Under the influence of alcohol (beer/wine/liquor)
    45. Under the influence of inhalants (sniffing glue, paints, or aerosol sprays)

According to staff report, there is virtually zero use of drugs or alcohol in elementary schools (note that students reported higher rates of usage). Staff reports also show a generally downward trend over time, but not as dramatic a drop as seen in the student-reported data (Exhibit 28).

Exhibit 28. Staff-Reported Student Drug and Alcohol Use Over Time by School Type
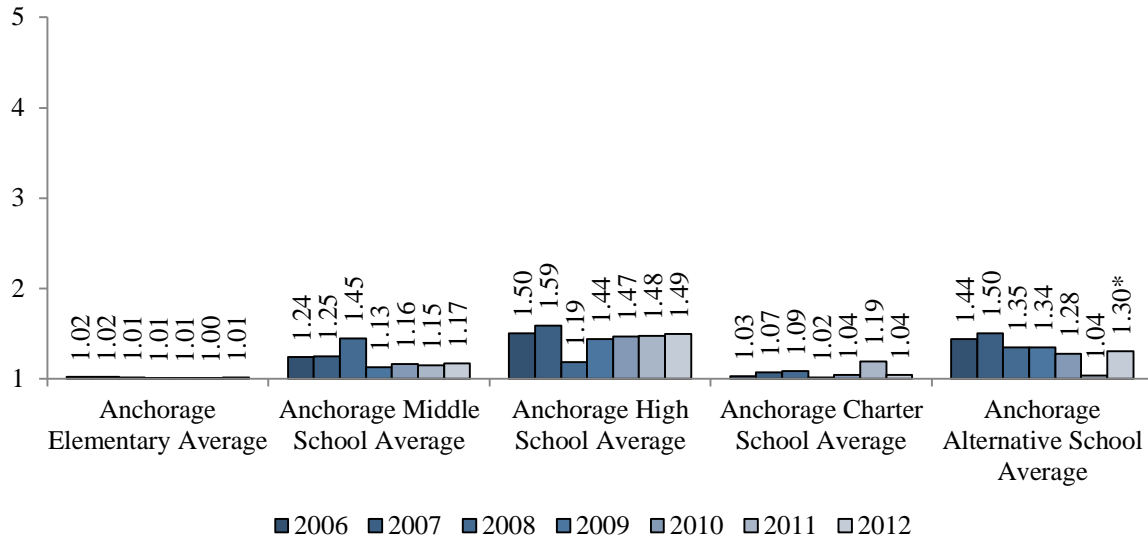
Discussion

ASD's Second Order Change project was both an ambitious and a forward-looking project. The project embedded a vision of promoting social and emotional skills for all—students and staff alike into an ambitious program of ongoing professional development. In this discussion, the evaluation will examine the logic model for this project one element at a time and relate the results to whether the model was borne out. The model is repeated in Exhibit 29 for the reader's convenience.

Exhibit 29. Logic Model for the Second Order Change Project

Training and coaching	→	**Improved staff interactional styles:** Less authoritarian / More mindful / More warm/less distant	→	**Improved school climate and connectedness:** More respectful climate / More caring adults	→	**Less student risk behavior:** Alcohol and drug use

Training and Coaching

Data for this evaluation showed that the inputs for this project were delivered with both quantity and quality. Over three years, almost 70 professional development opportunities were offered, and these reached nearly 2,000 educato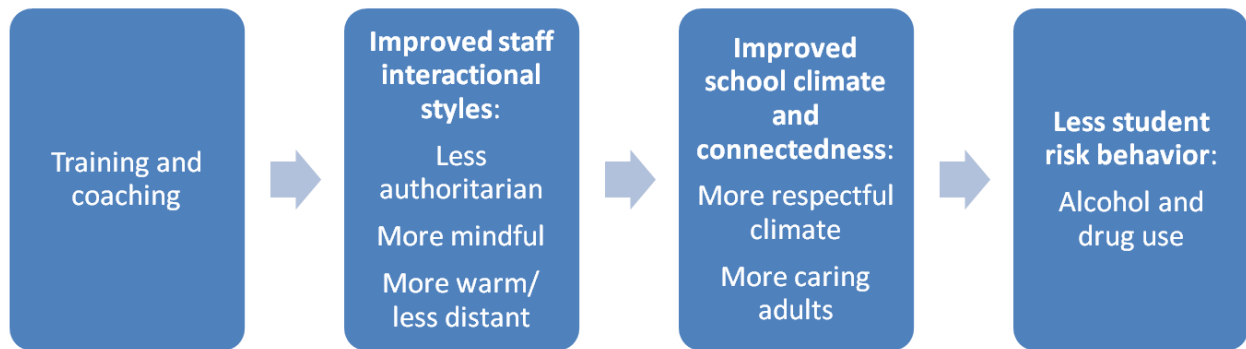rs. In a district with 3,500 teachers and roughly 7,000 total staff members, these efforts represent a respectable start.

Not only were a large number of professional development opportunities offered, but they were very well-received by the attendees. Comparison of responses to knowledge, practice, and attitude items from pre to post-class showed some significant improvements for every class, and for some classes, significant gains on a majority of items. These changes are particularly notable given that many of the classes were of relatively short duration; only a few days or weeks.

Comments from attendees were generally quite positive. Examples from three classes selected at random are presented here in their entirety, edited only for clarity.

Participants in the **Oceanview SEL Inquiry** class wrote:

- The class was more than I ever anticipated. It is my hope and desire what I learned in this class will remain permanently part of my daily "radar." I believe the students I serve will be positively impacted and this is my goal but the self-benefit has been above and beyond. How lucky I am to have such an opportunity!
- The inquiry method and the length of time of the class offered an opportunity for deeper self-reflection at a level a shorter period of time would not have provided.
- I enjoyed the collegial interactions. It was a great opportunity to reflect on my practice and needs that individual students in my classroom have.
- It was a great resource for a first year teacher!

Participants in a **Middle School Matters** course wrote the following:

Was there anything about the class that you found particularly helpful or useful to you in your work?
- I enjoyed getting to hear about how things run at other schools; how other teams operate, etc. Having time to discuss issues that come up.
- I thought the book we used was VERY insightful. I also enjoyed working with and collaborating with the members in the class.
- All of it; the book, discussions, expertise of the instructor.

Do you have any other comments about the class you took?
- I wish it lasted longer! I would love to continue the dialog.
- I think that Jan Davis is exceptional at introducing classes and topics that benefit teachers and students. I look forward to doing another follow up class again with this material and exploring the book a little more in depth. I hope to use the information at the start of next school year and collaborate even more with the members of my team and with Jan.
- I am glad I took it and would like to take another!

Participants in the **Trauma-informed Educational Practices** class reported the following comments:

Was there anything about the Trauma-Informed Effective Educational Practices class that you wish had been different, or that could have been done better?

- No, it was excellent
- More "move around time" and visual aids.
- It would have been nice to have some small group breakout sessions to process the information, but there probably wasn't enough time.
- I think a little more time on interventions would be helpful. Not sure, in survey, what is meant by "I know more about interventions that I can use *when* (my emphasis) a student has a strong emotional reaction". *During* the outburst, what can you do? When the child

is in a calmer state, one can take some measures, and those were presented. But *when* a child is melting down? Nada.

- A more comfortable room/seats/setting, but no complaints about the content of the presentation.
- More practice or role playing of interventions
- It would be nice to have a list of some samples of books, games, websites, and/or activities we can use with students, or maybe a list of catalogues or websites for the orders.
- It is always nice to leave with specific tools to try.
- I personally cannot do a full day of heavy PowerPoint presentation. Breaking it up with more engaged activity and dialogue would help a lot! I did appreciate the few small group discussions that occurred.
- No; the session was purposeful and interesting.
- More strategies, offer strategies earlier in the class as people start to lose focus after lunch. Maybe thread strategies in with brain/background info.
- Since it was the first class with basic information, I think it was excellent. A follow-up session may include small group work with each small group examining the possible triggers and interventions either for case examples or from our own personal cases (using fictitious names).
- I was very pleased with it as it was.
- I program would not let me click my strongly agree answers to the post questionnaire...all my answers would have been strongly agree.
- I would like to know if there is any research in regards to cultural responses to trauma. Are there children who are brought up to respond to trauma differently?
- I wish that all teachers had to participate in a shortened version of the "class" before students started. I also would like to explore how RCCP, Conscious Discipline, etc. fit in. Schools need strategies or to develop procedures to help students and support school personnel that work with these students so we can keep them in school and out of special education with a label if possible. The class was helpful and not a waste if time.
- The workshop was informative and practical.
- It would have been great if Kagan Cooperative Learning strategies were used to get us to process more interactively. They could have also gotten us up and moving.
- I would have liked to have more intervention strategies or teacher practices that would help teach these students.
- Perhaps pairing the clinical presentation with an experienced classroom teacher with concrete examples of interventions.
- Too much sitting
- I think the presenter used the time very well. Perhaps a second session focusing on specific interventions that could be applied in the school setting would be helpful, with role playing?

Was there anything about the class that you found particularly helpful or useful to you in your work?

- Absolutely—further validates need for SEL!! Gained some strong background knowledge to support the students and teachers of these students.
- Regulating students through art, movement...giving students wait time.

- Scenarios and talk time with table.
- The idea that being cool and calm and aware of how I am reacting is sometimes more important than what the child is doing. Behavior is a form of communication, not an insult.
- I especially liked the ideas for regulations of emotions that could be used in a classroom setting.
- Validation. Earnestness of presenter and audience. Sharing of techniques. A few leads on resources, and more effective ways to work with known resources. The peacock feather exercise.
- Validating earlier suspicions regarding dealing with symptomatic behaviors, and had always wondered what root causes had been underlying.
- Interventions, Interventions, Interventions!
- The detailed explanation and description of the emotional and behavioral reactions of traumatized children
- Handouts with data and outlines are always useful.
- The peacock feather activity.
- I found this very helpful in thinking about the students who present these challenging behaviors may be trauma impacted students. It reinforced what I knew about best practices about having predictable routines.
- I found it helpful to remember that all students are different and therefore have different needs. What works for one student may very well not work for another one.
- Great information
- The reminder that having students with extreme needs related to their life experience creates additional stresses and challenges for teachers is helpful. This will encourage me to search ways to support teachers, encourage them, and find training to build their knowledge base about ways to help or respond to kids who have experienced complex multiple traumas.
- The open interaction was great. I thought of many things I will do different when dealing with many kids......not just the multi traumatic.
- The case studies/amalgamations of children in our own community.
- Increased awareness and strategies that are helpful
- Yes, it was all helpful in understanding kids' (and adults') interactions and behaviors.
- Everything—the case histories were very helpful.
- I thought it was all useful and hopeful!
- The importance of communicating the effects of trauma on children to staff if it is suspected in a child's past.
- The information increased ones sensitivity and awareness regarding this very important issue impacting the lives of our students.
- More specific strategies might have been helpful. There were some specific strategies and lots of general strategies. For participants to have actually practiced some of the strategies with each other would have been helpful.
- Yes, it was all very relevant and I found all of it very useful for myself and how I perceive these students.
- The information provided during the class will help me as I work with parents on our Student Assistance Team.

- Case examples and examples of successful interventions.
- I found the information about how reactions can be misinterpreted and easily mishandled very useful. I know I will be looking more closely at my students and how I respond to them and paying close attention to triggers.
- It always nice to have more information about the students in the district. Also, it's good to be part of healthy and concerned dialogue about the trauma in our students' lives.

Do you have any other comments about the class you took?
- Excellent class - Helen did an outstanding job! Thanks for coordinating this Ann!! :-)
- Helen is excellent. Thank you for inviting me!
- Enjoyed, it was very informational.
- Very interesting.
- Great instructor. Nice setting. Important information.
- I think this workshop should have an intro aspect, for those unfamiliar with trauma and its effect, and a Part II with interventions and community-building development techniques for those who already understand the problems. The pre-test could spot which educators belong in which part. I would really have liked more emphasis on what to DO with our traumatized little people to help them.
- Needs to be broadcast to all districts and to all classrooms. I would even suggest that such information be presented in High School health classes for seniors, who will someday be parents; with the hopes of a preventative strategy.
- Great information, I wish more people could hear it.
- It is always good to know how important that we need to work together as a team to help students.
- Helen was a very engaged and dynamic person who brought great examples of cases to illustrate points. I think this was a very powerful topic and very useful in my work with students and staff.
- Very helpful class
- Thank you for making this information available to us.
- Need more on this topic
- Very well organized. Lots of handouts. PowerPoint copy is great; the graphs were not labeled though. Presenter very knowledgeable and engaging. All ASD staff should receive this training!
- This info needs to be part of August orientations/trainings for teachers and maybe all staff interacting with children and/or parents.
- It was extremely beneficial, and the presenter was very good.
- I hope that there are future opportunities for other ASD staff to participate in this class.
- Great presentation.
- I would like to have a list of online resources.
- The hand outs were good.
- It is definitely great and useful information to have.
- The class was informative and well worth the time.
- Great, knowledgeable, positive presenter. Lots of good information presented.
- It was great! I learned so much.

- This class was very complete and concise. I learned so much more than I had expected. Thank you!!
- It was excellent and very important for educators.
- Lots of good information
- This information is important for all educators and others working with children. The more we understand why children act the way they do, the better we can reach them and provide for them as learners.

Improved Staff Interactional Styles

Enjoying a class, writing positive comments about it, and even improving knowledge, practice, and attitudes in the short term are good outcomes, but they do not shed light on any potentially more enduring effects of having participated in such a professional development event. A much more stringent test of effects is a one-year follow up to determine whether enduring changes in interactional styles occurred.

The Circumplex Scales of Interpersonal Values showed that participants in Second Order Change activities significantly reduced their distance with students (for teachers and other school staff) and with staff (for principals). Although they did not improve in friendliness overall, they were already at quite high levels at baseline (see Exhibit 11).

Although there were no changes in authoritarianism, mindfulness did improve significantly for teachers and other staff across both waves of follow-up. Principals improved, but the statistical tests were not significant.

School Outcomes: Respectful Climate and Caring Adults

Based on anonymous student surveys, we found that student-reported respectful climate improved steadily over time in ASD schools. Respectful climate includes being treated fairly and respectfully, and reporting that "teachers here are nice people." If adults in ASD were improving their interactional style as predicted by the logic model, then respectful climate should improve. The results showed that the trends in respectful climate did not appear to be "interrupted" by the onset of the Second Order Change grant starting in the 2009–10 school year. Instead, there was already a trend toward improvement that appeared to continue. It appears that in middle schools, improvement was somewhat greater than at baseline, however.

The caring adults scale reflects a more personal sense of connection to the adults at school ("There is at least one adult at this school whom I feel comfortable talking to about things that are bothering me;" "At school, there is a teacher or some other adult who will miss me when I'm absent;" "Other adults at school besides my teachers know my name."). This scale also appeared to improve somewhat for middle schools (and to a lesser extent in elementary schools), but scores for high schools were flat. The timing of improvements overlaps with the period of the Second Order Change grant. Although there are many plausible competing explanations for this, the data are consistent with an effect of the program.

Findings for Native Alaskan students on these school variables showed that these students reported the highest scores for respectful climate at school, but until 2012 trailed other groups in

reporting the presence of caring adults. In 2012, Native Alaskan students scored the same as ASD students overall. These improvements are consistent with hypothesized effects of the Second Order Change project, but are too consistent with prior trend to attribute change to an initiative that began in 2009–10.

Student Outcomes: Drug and Alcohol Use

Rates of both student-reported and staff-reported drug and alcohol use have been declining sharply over the past six years. The trends are too steady to show an effect of the Second Order Change project. Reports of drug and alcohol use by Native Alaskan students have consistently been lower than those for students overall.

Conclusion

The Second Order Change project achieved modest but significant effects on an already high-scoring group of staff. Because participants volunteered for the courses, there may be some bias toward more interest in and more capacity for social and emotional skills among participants.

Outcomes for schools and students were already generally moving in a positive direction before the beginning of the Second Order Change project, which makes it difficult to attribute effects simply to the grant. More likely, the effects observed in this evaluation are a cumulative effect of years of ASD's investments in the promotion of social and emotional learning for all students; combined with broader cultural trends toward less drug and alcohol use nationwide (rates of alcohol use and all drugs except marijuana are decreasing nationally, CDC, 2012).

Although there is not an apparent causal connection between the Second Order Change project and improved youth indicators, the work ASD has done through this effort has kept it on a course toward continuously more positive outcomes for youth.

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[i] **Table E-1. District and School SCCS Participation Across Alaska by Year**

Year	Participating Districts	Participating Schools	Valid Student Surveys	Valid Staff Surveys
2006	15	148	24,732	3,453

2007	14	150	22,411	3,315
2008	33	242	30,124	4,730
2009	24	225	26,949	5,177
2010	34	268	33,413	5,931
2011	26	250	22,481	4,982