

D181 – Illinois Youth Survey Data Analysis

August 13, 2015

Peter Ji, PhD
Adler University

Overview of Today's Presentation

- Purpose of this analysis of the Illinois Youth Survey (IYS) data:
 - Determine if associations of survey variables provide useful information about the well-being and experience of our students.
- Goals of this presentation:
 - Present more nuanced results from the data for administrators, staff, and community.
 - Facilitate the use of the results for school improvement planning.
 - Encourage staff to consider how the results relate to their experiences of students in grades K–8.
- Data analysis involved analyzing associations among selected factors that were relevant to D181.
- Organization of presentation:
 - Highlight key findings.
 - Discuss what the findings mean to you.
- Overall discussion issues:
 - Do the results of this analysis provide information about the students that the school administrators do or do not already know?
 - Do the results have implications for how D181 views the adequacy of their current survey and student assessment efforts?

Key Findings – Strengths of D181 Schools

- Both D181 middle schools had strong school climates in 2014.
- Students' perceptions of school climate were strongest for the characteristics of *High Expectations*, *Caring Adults*, and *School Connectedness*, and weakest for *Meaningful Participation*.
- Students' positive perceptions of their school climates appeared to be associated with students who did not use alcohol.

Key Findings – Other Student Issues

- Parental monitoring was important. Results suggested that students who did not use alcohol also perceived that their parents would know about and disapprove of them if they used alcohol.
- Parents talking to their children about alcohol use appeared to have minimal impact on students' alcohol use.
- Students' alcohol use or their experiences with bullying may be associated with depression.
- Students' grades appeared to be generally high even if students reported experiencing bullying, alcohol use, or depression.

D181 School Climates Are Strong

1. The school climate range of scores is 1 to 4; higher scores indicate a better school climate. For both D181 middle schools, the highest score is *High Expectations* indicating that students perceive that their teachers have high expectations for them. The high score suggests that this perception is prominent and valued among students.
2. The scale *Meaningful Participation* is below 3, indicating that students report that they somewhat engage in meaningful participation.

Possible Discussion: What is meaningful participation and what encourages it? Improvements in meaningful participation could lead to improvements in what student outcomes? Are certain students participating more in class than others?

The scale *Meaningful Participation* consists of three questions:

- At school, I do interesting activities.
- At school, I help decide things like class activities or rules.
- At school, I do things that make a difference.

School Climate Scales	M	SD
High Expectations	¹ 3.48	.66
School Connectedness	3.36	.64
Caring Adults	3.26	.70
Meaningful Participation	² 2.47	.81

School Climate and Parent Monitoring Are Associated With Students Who Do Not Use Alcohol

1. Students who do not use alcohol had better (higher scores) impressions of school climate compared to those students who reported using alcohol.
2. Students who do not use alcohol reported that their parents would likely catch them at a party or drinking (3.01 = *Most of the time*) compared to students who do use alcohol (2.21 = *Sometimes*).
3. Parents talking to students about alcohol had no significant effect on students' alcohol use (non-significant t-test = 1.74^{ns}).

Possible Discussion: Why would students who have less positive impressions of school climate be more likely to use alcohol? Why would parent monitoring have a greater effect on student alcohol use than parent discussions about alcohol use?

School Climate (SC) and Parent Monitoring (PM)	Ever used alcohol in the past 30 days?	M	SD	t
<i>SC – High Expectations</i>	No	3.52	0.63	4.34**
	Yes	3.15	0.86	
<i>SC – Caring Adults</i>	No	3.29	0.68	5.09**
	Yes	2.84	0.86	
<i>SC – School Connectedness</i>	No	3.40	0.61	4.64**
	Yes	3.02	0.85	
<i>SC – Meaningful Participation</i>	No	2.50	0.80	3.82**
	Yes	2.11	0.82	
<i>PM – Parent caught you at party or drinking</i>	No	3.01	0.93	5.93**
	Yes	2.21	0.87	
<i>PM – Your parents feel it would be wrong to use substances</i>	No	2.95	0.18	8.12**
	Yes	2.74	0.38	
<i>PM – Parents talk about alcohol, marijuana, tobacco use in past year</i>	No	1.69	0.42	1.74 ^{ns}
	Yes	1.59	0.42	

Alcohol Use May Be Associated With Depression

1. Of the students who used alcohol, the ratio of the percentage of students who were depressed vs. not depressed was 36% ($n = 19$) to 64% ($n = 34$), respectively.
2. In contrast, of the students who did not use alcohol, the ratio of the percentage of students who were depressed vs. not depressed was 16% ($n = 64$) vs. 84% ($n = 327$), respectively.
3. Note: This result applies to only eighth graders as sixth graders did not answer questions about depression.

	Ever used alcohol in the past 30 days?	
During the past 12 months did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?	No	Yes
No	327 (84%)	34 (64%)
Yes	64 (16%)	19 (36%)
Total	391 (100%)	53 (100%)

Possible Discussion: What is the relationship between alcohol use and depression? Why would 64% of students who use alcohol not be depressed?

Bullying May Be Associated With Depression

The percentage of students who were bullied and depressed ($n = 52, 32\%$) was higher than the percentage of students who were not bullied and depressed ($n = 30, 11\%$).

	Ever bullied (reported at least 1 type of bullying)	
During the past 12 months did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?	No	Yes
No	250 (89%)	113 (68%)
Yes	30 (11%)	52 (32%)
Totals	280 (100%)	165 (100%)

Possible Discussion: Is bullying causing depression or do bullying and depression co-occur? What is occurring for those students ($n = 113, 68\%$) who experience bullying but are not depressed? Are they experiencing other emotions besides depression? Are they resilient and supported in their response to being bullied?

Bullying Has No Association with Student Grades

The percentage of students being bullied vs. not being bullied does not follow a consistent pattern across each of the student grades.

1. Of the total students who receive “Mostly A’s” or “Mostly A’s and B’s” more than one-third (33% and 40%) are bullied.
2. Of the total students who receive “Mostly B’s,” over half (57%) are bullied.
3. Of the total students who receive “Mostly B’s and C’s,” approximately one-third (39%) are bullied.

Grades	Ever bullied		
	No	Yes	Total
Mostly A	195 (68%)	94 (33%)	289
Mostly A and B	262 (60%)	174 (40%)	436
Mostly B	23 (43%)	31 (57%)	54
Mostly B and C	38 (61%)	24 (39%)	62
Mostly C	3 (38%)	5 (62%)	8
Mostly C and D	3 (50%)	3 (50%)	6
Mostly F	1 (100%)	0 (0%)	1

Possible Discussion: Is it fair to say that bullying has no association with students’ grades?

Depression Has No Association with Grades

The percentages of students who do not experience or do experience depression appear to be similar across those who receive “Mostly A’s” (86% vs. 14%) and “Mostly A’s and B’s” (81% vs. 19%).

Possible Discussion: Are there reasons that depression may not affect grades? Or if a student receives good grades, why might he/she be susceptible to depression?

Grades	During the past 12 months did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?		
	No	Yes	Total
Mostly A	114 (86%)	19 (14%)	133
Mostly A and B	182 (81%)	42 (19%)	224
Mostly B	26 (77%)	8 (24%)	34
Mostly B and C	26 (81%)	6 (19%)	32
Mostly C	3 (43%)	4 (57%)	7
Mostly C and D	3 (60%)	2 (40%)	5
Mostly F	1 (100%)	0 (0%)	1

Alcohol Use Has No Association with Grades

The percentages of students who do not use alcohol or do use alcohol appear to be similar across those who receive “Mostly A’s” (94% vs. 6%) and “Mostly A’s and B’s” (93% vs. 7%).

Possible Discussion: Are there reasons that alcohol use may not affect grades? Or if a student receives good grades, why might he/she be susceptible to alcohol use?

Grades	Ever used alcohol in the past 30 days?		
	No	Yes	Total
Mostly A	269 (94%)	17 (6%)	286
Mostly A and B	399 (93%)	31 (7%)	430
Mostly B	48 (91%)	5 (9%)	53
Mostly B and C	51 (85%)	9 (15%)	60
Mostly C	6 (75%)	2 (25%)	8
Mostly C and D	5 (83%)	1 (17%)	6
Mostly F	1 (100%)	0 (0%)	1

Discussion of Key Findings from IYS Analysis

- Increasing meaningful participation among the students and their teachers may be a goal to consider for the schools.
- Positive perceptions of school climate appear to be associated with students who do not use alcohol, but the reason for this effect is not clear. Nor do we know why students with low perceptions of school climate also engage in alcohol use.
- Parent monitoring of alcohol use (“My parents would catch me if I use alcohol”) appears to be more effective than having parents talk to their children about alcohol use in preventing students from using alcohol.
- Alcohol use and depression appear to be associated, but it is unclear if depression leads to alcohol use, alcohol use leads to depression, or if they are co-occurring issues.
- Students who experience bullying may experience depression. Students who experience bullying may not experience depression, but they may experience other emotional or psychological issues that are not assessed by the IYS.

The Limits of this Analysis

- The nature of student issues (bullying, depression, alcohol use) is not well understood based on the variables that are assessed by IYS.
 - Some of the results we already know – e.g., bullying and depression are related.
- Cannot infer causality, i.e., which issue preceded the other issue.
 - For example, does depression cause alcohol use, does alcohol use cause depression, or do they co-occur?
- Cannot infer if there is a third variable that accounts for these associations.
 - For example, could the pressure to achieve contribute to both students' depression and use of alcohol?
 - Could students be using alcohol as a means to affiliate with peers?
- Cannot determine if there are unique profiles of students who appear to have severe risk issues (e.g., suicide thoughts, use of illicit substances, receiving grades of C's, D's, and F's).

Discussion of D181 Student Assessment Efforts

- It is often said that all results and answers lead to more questions.
 - How do these results align with D181 staff's perceptions of their curriculum, practices, and social and emotional learning efforts?
 - Are some results more of a concern than other results?
 - Moving forward, what are our thoughts about the adequacy of current D181 survey and student assessment efforts?
 - Do these results match your perception of what is happening in the schools and with our students?
 - What would we like to know about? How would we go about finding out what we want to know?
 - What would a more sophisticated analysis and assessment effort look like?
- Exciting possibilities – Could we conduct longitudinal analyses? Can data from the elementary school students help us determine if students experience difficulties or success in elementary school, will they continue to have difficulties or success in middle school? We know that the prevalence of student issues increases at high school. Could the results from the middle school students predict if the students will experience problems or success in high school? If so, could these problems be prevented and the chances for success be promoted?

Connecting Data to School Improvement Planning (Kurt)

- What do you think this review of our IYS data means to your School Improvement Plan?
- What elements from the data are meaningful to you in the elementary schools? ...in the middle schools?
- What issues/opportunities does this data spotlight that you would like to address intentionally this school year?
- (DISCUSS in small groups and SHARE with all on poster paper.)