Emergency Safety Interventions: An Analysis of Seclusion and Restraint in Kansas Schools

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Seclusion and restraint in schools is a topic of high interest and importance across the nation. Reports, research, and advocacy groups heightened the issue with a call to action in order to decrease use of the practices in 2009. Two bipartisan bills introduced in the U.S. Senate and U.S. House of Representatives in 2009 developed out of an effort to respond to the growing concern for the safety of all students and teachers. In response to the federal bills, many states created or updated policies regarding the practices in schools. Kansas began taking steps to minimize seclusion and restraint in schools in 2013 when the Kansas State Board of Education ("State Board") passed K.A.R. 91-42-1 and K.A.R. 91-42-2. The new regulations defined emergency safety interventions and required reporting by all schools across the state. In 2015, the Kansas legislature passed the Freedom from Unsafe Restraint and Seclusion Act. Beginning in 2013 with the passing of the regulations by the State Board, the Kansas State Department of Education (KSDE) sought proactive steps to better understand seclusion and restraint in schools and ways to better prepare teachers to support students in the crisis cycle. The analysis conducted for the paper developed out of a need to further understand seclusion and restraint and support schools in reducing the practices. The goals of the analysis included understanding predictors of seclusion and restraint as well as areas needing targeted technical assistance at the building and district levels. The analysis will inform teachers, administrators, support personnel, and policy makers on the practices of seclusion and restraint in Kansas, and supports the development of staff training to reduce the practices.

Throughout the paper the following terms are used: emergency safety intervention, seclusion, and restraint. Their definitions come from the 2013 regulations that guided the data collection during the 2013-2014 and 2014-2015 school years. Although the definitions have

been updated in the 2015 statute, the definitions expressed in the paper are consistent with the data collected by schools. Updated information on current definitions used in Kansas can be found in 2016 K.A.R. 91-42-1. Emergency safety intervention means the use of seclusion or physical restraint when the student presents an immediate danger to self or others, and violent action that is destructive of property may necessitate the use of an emergency safety intervention (2013 K.A.R. 91-42-1(c)). Physical restraint is bodily force used to substantially limit a student's movement (2013 K.A.R. 91-42-1(f)), and is referred to as restraint throughout the paper. Mechanical and chemical restraints are prohibited in Kansas and therefore not included in the data analysis. Seclusion, when used with a student, means all the following conditions are met: (1) the student is placed in an enclosed area by school personnel; (2) the student is purposefully isolated from adults and peers; (3) the student is prevented from leaving, or the student reasonably believes that the student will be prevented from leaving, the enclosed area (2013 K.A.R. 91-42-1(h)).

The paper begins with a background on the history of seclusion and restraint, then describes research conducted on the practices, and examines the history of seclusion and restraint in Kansas. Next, a brief description of the methods and data are explained followed by the results. All tables referenced may be found in the appendix with definitions that are helpful when understanding the analysis conducted. The paper concludes with final thoughts, key points from the analysis, and recommendations on using the data to inform practice and reduce seclusion and restraint in schools.

History of Seclusion and Restraint

The use of seclusion and physical restraint has a long history beginning with Philippe Pinel in Paris, France in 1793 (Ryan & Peterson, 2004). The practices were used only when a

patient could not be safely calmed down and was a threat to him/herself or others. In the 19th century, England began documenting the use of seclusion and restraint because of increased controversy over the practices (Ryan & Peterson, 2004; Ryan, Peterson, Tetreault, & Van der Hagen, 2007). Parliament began requiring the use of logs with recommendations to find alternate treatment options, and the Lunacy Commission was established in order to protect the welfare of patients in asylums and hospitals in 1854.

During the same time in the United States, a population boom and increase in institutional placement for individuals with disabilities created a demand for more restrictive measures to manage behavior (Osgood, 2008). Although children were housed in institutions in the 19th century, there is no record of seclusion and restraint being used until the 1950s (Ryan and Peterson, 2004). The history on the topic is scarce as those housed in hospitals and asylums were treated with minimal dignity and respect.

Seclusion and restraint gained national attention in the United States in 2009 with the publication of a report titled *School is Not Supposed to Hurt: Investigative Report on Abusive Restraint and Seclusion in Schools* (National Disability Rights Network). The report documented deaths and injuries of students subjected to the aversive practices. Since that time, policies have been proposed at the local, state, and federal levels to restrict and document seclusion and restraint. No stand-alone federal policy has been signed into law, but 25 states have laws providing meaningful protection for all students, and 10 additional states provide meaningful protection by law for only students with disabilities from seclusion and restraint (Butler, 2015). The 2015 passage of the landmark reauthorization of the Elementary and Secondary Education Act (ESEA), included language addressing seclusion and restraint. In the law, State educational agencies must support local educational agencies in reducing bullying and

harassment, the overuse of discipline practices that remove students from classrooms, and the use of aversive behavior interventions that compromise safety and health (20 U.S.C. 6311(g)(1)(C)). A report released from the Senate Health, Education, Labor and Pensions (HELP) committee after passing the bill out of committee stated that the language in the law specifically relates to seclusion and restraint, and encouraged States to take proactive, meaningful steps towards reducing these practices. As States begin to release their plans required by the Every Student Succeeds Act (ESSA), they must be thoughtful about reduction of the practices.

Seclusion and Restraint Research

Although articles on the use of seclusion and restraint in schools are limited, there are clear trends that have emerged from the extant literature. Restraint and seclusion were originally intended as methods to enact during an emergency situation in which a child is violent, out of control, or an immediate threat to others or him/herself (LeBel, Nunno, Mohr, & O'Halloran, 2012). In a school, there is an expectation of safety when entering the building for all staff and students (Turnbull, Stowe, & Huerta, 2007). Due to this expectation of safety, many educators feel the need to use seclusion and restraint in order to keep others safe (Ryan, Peterson, & Rozalski, 2013; Westling, Trader, Smith, & Marshall, 2010).

Use of the procedures has been under scrutiny, yet continues to increase. However, most schools do not report a decrease in behaviors associated with using seclusion and restraint (Ryan et al, 2013). The ineffectiveness of seclusion and restraint can be linked to the way schools use the practices, which are often focused on punishment when there is no credible research demonstrating that seclusion and restraint are effective forms of reducing problem behavior

(Ryan & Peterson, 2004). However, many of the incidents made public have resulted from staff using seclusion and/or restraint as a form of punishment or coercion.

Another problem found in the literature on seclusion and restraint in schools is the detrimental effects occurring from the aversive procedures. A problematic detrimental effect is the reinforcement of undesirable behavior. Reinforcement occurs for unwanted behaviors from students subjected to seclusion and restraint by removing them from a difficult or displeasing situation (Magee & Ellis, 2001). Often students will increase behavior that leads to a seclusion incident, rather than decrease the undesirable behavior (Magee & Ellis, 2001; Ryan et al., 2007). Further, there are general understandings and beliefs that physical restraint may result in physical injuries such as broken bones, but also may cause psychological damage (Peterson, Albrecht, & Johns, 2009). Research, reports, and lawsuits have clearly demonstrated that prone and supine restraints should no longer be used in schools due to increased probability of death (Council for Exceptional Children, 2009; LeBel et al. 2012; Magee & Ellis, 2001; Peterson et al., 2009; Ryan & Peterson, 2004; Westling et al., 2010).

Seclusion and Restraint in Kansas

The state of Kansas has a 12-year history of developing guidance and legislation regarding seclusion and restraint. Between the years of 2004 and 2007, legislative educational planning committees and the State Board helped to develop guidelines for the use of seclusion and restraint in schools. KSDE began to collect data in 2009 in order to understand the practices in schools. In 2012, the State Board began to develop legally-binding regulations to reduce the practices of seclusion and restraint. At this time, the practices were designated Emergency Safety Interventions in order to further emphasize the practices should not be used as regular interventions to control behavior. The State Board regulations passed in February 2013 and were

officially implemented in schools during the 2013-2014 school year. At this time data collection became mandatory and resulted in the first year of required statewide data collection in all accredited schools. Throughout 2014, the State Board frequently discussed emergency safety interventions, seeking to further understand the practices and introduced several amendments to the regulations. On June 4, 2015, HB 2170, passed by the Kansas legislature and signed into law by Governor Sam Brownback, went into effect. The Freedom from Unsafe Restraint and Seclusion Act resulted in similar language to the regulations passed by the State Board, but also took additional steps to increase the communication with parents and guardians, as well as developed a more rigorous data collection process.

Data Analysis and Results

As described previously, the analysis developed out of a desire to understand seclusion and restraint in the state of Kansas including factors that increase or decrease the practices. The data used for the analysis was reported to KSDE by buildings and districts. Data included seclusion and restraint reports, demographics, teacher certification, attendance rates, graduation rates, drop-out rates, and discipline reports. The data was de-identified before the analysis to provide anonymous results ensuring the protection of the identities of students, teachers, buildings, and districts. The results cannot be traced back to individual buildings or districts and are intended to provide information to inform practices in all buildings. Throughout the analysis, Quarter 1 restraint and Quarter 1 seclusion from the 2013-2014 school year were not included. At the time the data was collected, an error in the computer system resulted in unreliable data, and therefore, Quarter 1 was dropped from the analysis.

Two types of data analysis were used for the purposes of this paper. The first was a logistic regression determining the probability of restraint and seclusion based on characteristics

of the school or district. The results of a logistic regression cannot be used to determine causality, but demonstrate relationships between various characteristics and the outcome variable. Although steps were taken to ensure reliability of the data, all results should be used as guidance. Table 1 shows the results of conducting the analysis determining the probability of restraint based on district-level characteristics during the 2013-2014 school year. Districts with students on free lunch and districts with social workers were more likely to have used restraint during that year. Table 2 shows the results of the logistic regression determining the probability of seclusion based on district-level characteristics during the 2013-2014 school year. Districts that had social workers and increased in-school suspension were less likely to use seclusion, while districts that had higher rates of certified teachers and used a variety of disciplinary actions including expulsion and out-of-school suspension were more likely to use seclusion. The same two analyses were used for the following school year, 2014-2015. Table 3 shows that the use of restraint the previous school year resulted in increased use of restraint during 2014-2015. The use of seclusion during this same school year also predicted the use of restraint in any given district. Similar results can be seen in Table 4 that examined the use of seclusion at the district level in 2014-2015. The use of restraint in the 2014-2015 school year increased the probability that seclusion would also be used in any given district.

Although there were less data points at the building level, similar results can be seen. Table 5 shows the logistic regression examining the probability of restraint at the building level during the 2013-2014 school year. Buildings that had students on free lunch, increased in-school suspension, and increased out-of-school suspension were more likely to use restraint. Buildings that had higher seclusion minutes or incidents in 2013-2014 also had higher rates of restraint. The use of seclusion in the 2013-2014 school year had similar results as the use of restraint at the

building level as can be seen in Table 6. Restraint in 2013-2014 across all quarters increased the likelihood of the use of seclusion at the building level. Tables 7 and 8 show the analysis of restraint and seclusion, respectively, at the building level during the 2014-2015 school year. Again, very similar results were found with previous instances of seclusion and restraint increasing the likelihood of future occurrences of seclusion and restraint. The number of students on free lunch also continues to increase the likelihood of restraint.

An ordinary least squares analysis was also conducted looking at correlations of variables and restraint or seclusion at the end of the year (quarter 4 reporting) at the district and building levels. As with the logistic regression, ordinary least squares regression does not demonstrate causality, but correlations between the variables. Tables 9 through 16 show the results of this analysis for each year of data examining the likelihood of restraint and seclusion at the district and building levels. Not surprisingly, very similar results were found as the logistic regression. The primary take away from these tables is that previous instances of seclusion and restraint increase future instances of seclusion and restraint. Demographic variables did not consistently show significance in this type of analysis. However, in order to fully understand how demographics, including race, influence seclusion and restraint, further analysis is needed to investigate individual instances of seclusion and restraint rather than data aggregated at the building and district level.

Conclusion

The results of the data analysis led to three key points: (1) buildings and districts that seclude and restrain students are more likely to do so in the future, (2) buildings and districts with higher rates of poverty are more likely to seclude and restrain, and (3) the use of seclusion and the use of restraint predict one another. These points are critical in working to develop

targeted technical assistance for reducing the use of seclusion and restraint. As described previously, in Kansas, seclusion and restraint are considered emergency safety interventions. However, the data analysis was clear: the practices increase the likelihood of future use of seclusion and restraint. There must be a stronger focus on training and preventative practices to reduce seclusion and restraint across the state. The second point demonstrates the need for more staff training in culturally-responsive practices and wrap-around supports for students. Buildings with high poverty rates often face various intersectional challenges including higher rates of teacher turnover and fewer resources. Professional development should focus on providing supports that meet the needs of the whole student including academics and social-emotional development. The final key point is that buildings and districts must focus on other strategies to reduce undesirable behaviors. The use of seclusion and the use of restraint increasing the likelihood of one another occurring is not a surprise as often restraint is used to move a student to seclusion. Buildings and districts must undergo a cultural shift to move away from the aversive practices and limit each of the practices from occurring.

KSDE does not promote the use of emergency safety interventions and recommends a focus on prevention due to the present dangers of using seclusion and restraint. Seclusion and restraint are not part of a tiered intervention and should not be written into a student's individualized education program or behavior intervention plan. Emergency safety interventions are ultimately reactive procedures that do not decrease the likelihood of the behavior from occurring. Focusing on proactive strategies such as positive behavior interventions and supports can begin to reduce the undesirable behaviors that lead to seclusion and restraint. District staff who understand the de-escalation or crisis cycle can also help to intervene before the situation escalates to an emergency. Targeted positive interventions focusing on increasing desirable

behavior lead to better outcomes and increased class time for students. Ultimately, increased class time and decreased removal due to behavior can help support student learning, increase academic outcomes, and create a safer learning environment.

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Appendix

Note: The appendix contains all tables referenced throughout the white paper. Below are key statistical definitions that may be helpful when reading the tables.

Logistic Regression: "uses predictor variables (of any sort) to compute a score on an underlying latent variable. The procedure is used to 'predict' which of two categories each individual's case will manifest, and in doing so creates a model based on the predictor variables" (Gorard, 2003, p. 219-220).

Ordinary Least Squares Regression: "The most common type of regression analysis; it uses the least squares criterion for producing parameter estimates" (Vogt & Johnson, 2011, p. 267). "It produces the 'best-fitting' regression line and the best estimates of the population Y-intercept and regression coefficients" (Vogt & Johnson, 2011, p. 204).

Odds Ratio: "The ratio of one odds to another. It is a measure of association, but unlike other measures of association, 1.0 means there is no relationship between the variables. The size of any relationship is measured by the difference (in either direction) from 1.0. An odds ratio less than 1.0 indicates an inverse or negative relation; an odds ratio greater than 1.0 indicates a direct or positive relation" (Vogt & Johnson, 2011, p. 267).

Regression Coefficient: "A number indicating the values of a dependent variable associated with the values of an independent variable or variables" (Vogt & Johnson, 2011, p. 331).

Standard Error: "The standard error is the standard deviation of the sampling distribution of a statistic. It is a measure of sampling error; it refers to error in our estimates due to random fluctuations in our samples. It goes down as the number of cases goes up" (Vogt & Johnson, 2011, p. 375).

Table 1. Logistic Regression Predicting Probability of Restraint at the District Level in 2013-14 School Year

Variable	Odds Ratio	Standard Error
Seclusion - Yes or No	1.221	0.673
White Students	1.008	0.007
Asian Students	0.982	0.023
Black Students	1.015	0.012
Hispanic Students	1.000	0.009
Native American Students	1.016	0.013
Hawaiian/Pacific Islander Students	0.990	0.099
Multiple Races Students	1.006	0.013
Male Students	0.989	0.013
English Learner Students	1.009	0.010
Students with Disabilities	1.008	0.009
Principle Certification	0.864	0.308
Special Education Certification	0.913	0.072
Pre-K Teacher Certification	0.952	0.223
Kindergarten Teacher Certification	1.351	0.412
Teacher Certification	0.948	0.036
Counselor Certification	1.639	0.477
School Psychologist Certification	0.643	0.427
Speech Language Certification	1.538	0.643
Social Work Certification	3.175*	1.765
Students on Free Lunch	42.358*	86.148
Students on Reduced Lunch	0.001	0.006
Attendance Rate	1.321	0.229
Drop Out Rate	0.956	0.195
Graduation Rate	1.034	0.029
Total In-School Suspension	1.028	0.067
Total Out-of-School Suspension	1.260	0.422
Total Expulsion	1.044	0.248
Total Other Disciplinary Action	1.027	0.053

Note: 264 recorded observations, $p < .01$, Pseudo $R^2 = 0.448$

* represents $p < .05$

** represents $p < .01$

Table 2. Logistic Regression Predicting Probability of Seclusion at the District Level in 2013-14 School Year

Variable	Odds Ratio	Standard Error
Restraint - Yes or No	1.028	0.585
White Students	1.004	0.007
Asian Students	0.978	0.013
Black Students	1.009	0.008
Hispanic Students	1.003	0.008
Native American Students	0.992	0.013
Hawaiian/Pacific Islander Students	0.929	0.114
Multiple Races Students	1.017	0.012
Male Students	0.982	0.013
English Learner Students	0.997	0.007
Students with Disabilities	1.009	0.005
Principle Certification	1.184	0.326
Special Education Certification	1.077	0.063
Pre-K Teacher Certification	0.944	0.137
Kindergarten Teacher Certification	1.104	0.255
Teacher Certification	1.107**	0.038
Counselor Certification	0.835	0.193
School Psychologist Certification	0.622	0.241
Speech Language Certification	1.147	0.208
Audiologist Certification	0.026	0.059
Social Work Certification	0.554*	0.162
Students on Free Lunch	0.168	0.386
Students on Reduced Lunch	33996.920	259116.400
Attendance Rate	0.889	0.103
Drop Out Rate	1.287	0.249
Graduation Rate	1.025	0.037
Total In-School Suspension	0.852**	0.046
Total Out-of-School Suspension	1.138	0.296
Total Expulsion	0.551	0.217
Total Other Disciplinary Action	1.180**	0.055

Note: 277 recorded observations, $p < .01$, Pseudo $R^2 = 0.467$

* represents $p < .05$

** represents $p < .01$

Table 3. Logistic Regression Predicting Probability of Restraint at the District Level in 2014-15 School Year

Variable	Odds Ratio	Standard Error
Seclusion – Yes or No	8.646**	3.827
Students on Free Lunch	1.515	2.862
Students on Reduced Lunch	1.844	11.033
Attendance Rate	0.970	0.102
Drop Out Rate	0.861	0.180
Graduation Rate	1.003	0.025
Restraint Yes or No SY 13-14	3.930**	1.831
Seclusion Yes or No SY 13-14	1.030	0.677
Principle Certification	1.442	0.619
Special Education Certification	1.147	0.118
Pre-K Teacher Certification	0.748	0.248
Kindergarten Teacher Certification	1.358	0.405
Teacher Certification	0.935	0.035
Counselor Certification	1.076	0.313
School Psychologist Certification	1.795	1.976
Speech Language Certification	0.742	0.558
Social Work Certification	0.757	0.463
White Students	1.000	0.007
Asian Students	0.960	0.023
Black Students	0.995	0.010
Hispanic Students	1.006	0.009
Native American Students	0.996	0.013
Hawaiian/Pacific Islander Students	1.213	0.213
Multiple Races Students	1.033	0.017
Male Students	1.003	0.014
English Learner Students	0.991	0.010
Students with Disabilities	1.005	0.008
Total In-School Suspension	0.981	0.073
Total Out-of-School Suspension	2.139	0.999
Total Expulsion	1.001	0.213
Total Other Disciplinary Action	1.041	0.061

Note: 264 recorded observations, $p < .01$, Pseudo $R^2 = 0.474$

* represents $p < .05$

** represents $p < .01$

Table 4. Logistic Regression Predicting Probability of Seclusion at the District Level in 2014-15 School Year

Variable	Odds Ratio	Standard Error
Restraint - Yes or No	10.170**	4.529
Students on Free Lunch	0.157	0.318
Students on Reduced Lunch	371.875	2424.671
Attendance Rate	1.527*	0.285
Drop Out Rate	1.305	0.203
Graduation Rate	1.029	0.030
Restraint Yes or No SY 13-14	1.635	0.753
Seclusion Yes or No SY 13-14	2.627	1.536
Principle Certification	1.848	0.695
Special Education Certification	1.162	0.090
Pre-K Teacher Certification	0.887	0.236
Kindergarten Teacher Certification	1.319	0.295
Teacher Certification	1.039	0.027
Counselor Certification	0.669	0.159
School Psychologist Certification	0.405	0.212
Speech Language Certification	1.049	0.297
Social Work Certification	0.539	0.244
White Students	1.000	0.007
Asian Students	1.025	0.016
Black Students	0.998	0.009
Hispanic Students	1.000	0.009
Native American Students	1.025	0.015
Hawaiian/Pacific Islander Students	1.000	0.136
Multiple Races Students	0.993	0.016
Male Students	0.995	0.013
English Learner Students	1.000	0.011
Students with Disabilities	1.004	0.006
Total In-School Suspension	1.022	0.061
Total Out-of-School Suspension	0.852	0.178
Total Expulsion	0.795	0.279
Total Other Disciplinary Action	1.048	0.050

Note: 264 recorded observations, $p < .01$, Pseudo $R^2 = 0.465$

* represents $p < .05$

** represents $p < .01$

Table 5. Logistic Regression Predicting Probability of Restraint at the Building Level in 2013-14 School Year

Variable	Odds Ratio	Standard Error
Students on Free Lunch	4.376**	1.338
Students on Reduced Lunch	0.002**	0.002
Seclusion Incidents Quarter 2 13-14	1.059	0.036
Seclusion Minutes Quarter 2 13-14	1.006*	0.003
Seclusion Incidents Quarter 3 13-14	1.028	0.054
Seclusion Minutes Quarter 3 13-14	1.009*	0.004
Seclusion Incidents Quarter 4 13-14	1.114**	0.044
Seclusion Minutes Quarter 4 13-14	0.998	0.002
Total In-School Suspension	1.078**	0.020
Total Out-of-School Suspension	1.014*	0.006
Total Expulsion	1.100	0.102
Total Other Disciplinary Action	0.902	0.209

Note: 1,342 recorded observations, $p < .01$, Pseudo $R^2 = 0.183$

* represents $p < .05$

** represents $p < .01$

Table 6. Logistic Regression Predicting Probability of Seclusion at the Building Level in 2013-14 School Year

Variable	Odds Ratio	Standard Error
Students on Free Lunch	1.355	0.485
Students on Reduced Lunch	0.021*	0.035
Restraint Incidents Quarter 2 13-14	1.080**	0.028
Restraint Minutes Quarter 2 13-14	1.018**	0.006
Restraint Incidents Quarter 3 13-14	1.117**	0.043
Restraint Minutes Quarter 3 13-14	0.972**	0.008
Restraint Incidents Quarter 4 13-14	1.104*	0.050
Restraint Minutes Quarter 4 13-14	0.981*	0.009
Total In-School Suspension	1.080**	0.018
Total Out-of-School Suspension	0.996	0.005
Total Expulsion	1.161	0.107
Total Other Disciplinary Action	1.025	0.208

Note: 1,380 recorded observations, $p < .01$, Pseudo $R^2 = 0.142$

* represents $p < .05$

** represents $p < .01$

Table 7. Logistic Regression Predicting Probability of Restraint at the Building Level in 2014-15 School Year

Variable	Odds Ratio	Standard Error
Students on Free Lunch	3.980**	1.247
Students on Reduced Lunch	0.009**	0.012
Reporting Period 1, 14-15 Seclusion Incidents	1.083	0.052
Reporting Period 1, 14-15 Students Secluded	3.428**	0.795
Reporting Period 1, 14-15 Seclusion Minutes	0.998	0.001
Reporting Period 2, 14-15 Seclusion Incidents	1.056*	0.027
Reporting Period 2, 14-15 Students Secluded	2.210**	0.362
Reporting Period 2, 14-15 Seclusion Minutes	0.997**	0.001
Total In-School Suspension	0.932	0.070
Total Out-of-School Suspension	0.878	0.073
Total Expulsion	0.879	0.106
Total Other Disciplinary Action	0.831	0.182

Note: 1,271 recorded observations, $p < .01$, Pseudo $R^2 = 0.246$

* represents $p < .05$

** represents $p < .01$

Table 8. Logistic Regression Predicting Probability of Seclusion at the Building Level in 2014-15 School Year

Variable	Odds Ratio	Standard Error
Students on Free Lunch	0.715	0.252
Students on Reduced Lunch	0.187	0.285
Reporting Period 1, 14-15 Restraint Incidents	1.010	0.014
Reporting Period 1, 14-15 Students Restrained	1.722**	0.132
Reporting Period 1, 14-15 Restraint Minutes	0.997	0.003
Reporting Period 2, 14-15 Restraint Incidents	1.048**	0.019
Reporting Period 2, 14-15 Students Restrained	1.246**	0.090
Reporting Period 2, 14-15 Restraint Minutes	0.995	0.003
Total In-School Suspension	1.173*	0.076
Total Out-of-School Suspension	1.079	0.076
Total Expulsion	1.081	0.138
Total Other Disciplinary Action	1.036	0.269

Note: 1,271 recorded observations, $p < .01$, Pseudo $R^2 = 0.197$

* represents $p < .05$

** represents $p < .01$

Table 9. Ordinary Least Squares Regression Predicting Restraint Minutes at the District Level in the 2013-14 School Year

Variable	Coefficient	Standard Error
Restraint Minutes Quarter 3 2013-14	0.387**	0.116
Restraint Minutes Quarter 2 2013-14	0.162	0.085
Seclusion Minutes Quarter 4 2013-14	-0.053*	0.023
Seclusion Minutes Quarter 3 2013-14	-0.011	0.024
Seclusion Minutes Quarter 2 2013-14	0.001	0.019
White Students	0.041	0.088
Asian Students	0.114	0.106
Black Students	-0.003	0.091
Hispanic Students	-0.040	0.098
Native American Students	0.066	0.150
Hawaiian/Pacific Islander Students	-1.519	0.833
Multiple Races Students	0.196	0.131
Male Students	-0.134	0.167
English Learner Students	0.088	0.056
Students with Disabilities	0.211**	0.069
Total Pre-K Students	0.406**	0.156
Total Kindergarten Students	0.570*	0.273
Total 1st Grade Students	-0.154	0.337
Total 2nd Grade Students	-0.309	0.298
Total 3rd Grade Students	-0.247	0.323
Total 4th Grade Students	0.109	0.329
Total 5th Grade Students	0.344	0.287
Total 6th Grade Students	0.059	0.295
Total 7th Grade Students	-0.242	0.290
Total 8th Grade Students	0.067	0.331
Total 9th Grade Students	0.264	0.208
Total 10th Grade Students	0.390	0.278
Total 11th Grade Students	0.491	0.264
Total 12th Grade Students	-1.100**	0.255
Principle Certification	-3.819	3.807
Special Education Certification	0.097	0.643
Pre-K Teacher Certification	-3.231	2.032
Kindergarten Teacher Certification	0.599	2.714
Teacher Certification	-0.141	0.330
Counselor Certification	-1.199	2.754
School Psychologist Certification	1.533	5.359
Speech Language Certification	-2.772	2.425

Audiologist Certification	21.901	26.384
Social Work Certification	6.033	2.803
Students on Free Lunch	-13.301	25.248
Students on Reduced Lunch	-6.394	84.886
Attendance Rate	-0.977	1.486
Drop Out Rate	-0.753	2.163
Graduation Rate	0.165	0.292
Total In-School Suspension	-0.915	0.471
Total Out-of-School Suspension	-1.174	2.859
Total Expulsion	-0.591	3.014
Total Other Disciplinary Action	0.612	0.403

Note: 277 recorded observations, $R^2 = 0.745$, $p < .01$

* represents $p < .05$

** represents $p < .01$

Table 10. Ordinary Least Squares Regression Predicting Seclusion Minutes at the District Level in the 2013-14 School Year

Variable	Coefficient	Standard Error
Seclusion Minutes Quarter 3 2013-14	0.474**	0.063
Seclusion Minutes Quarter 2 2013-14	0.362**	0.050
Restraint Minutes Quarter 4 2013-14	-0.441*	0.188
Restraint Minutes Quarter 3 2013-14	0.271	0.342
Restraint Minutes Quarter 2 2013-14	-0.097	0.246
White Students	0.188	0.251
Asian Students	-1.213**	0.293
Black Students	0.380	0.260
Hispanic Students	0.256	0.281
Native American Students	0.929*	0.427
Hawaiian/Pacific Islander Students	-2.674	2.404
Multiple Races Students	0.689	0.374
Male Students	-0.052	0.482
English Learner Students	-0.014	0.161
Students with Disabilities	-0.466*	0.199
Total Pre-K Students	0.603	0.455
Total Kindergarten Students	-0.659	0.791
Total 1st Grade Students	0.324	0.969
Total 2nd Grade Students	-1.622	0.851
Total 3rd Grade Students	0.167	0.928
Total 4th Grade Students	-2.318*	0.933
Total 5th Grade Students	0.826	0.825
Total 6th Grade Students	0.553	0.847
Total 7th Grade Students	3.564**	0.802
Total 8th Grade Students	-0.999	0.948
Total 9th Grade Students	-2.255**	0.580
Total 10th Grade Students	-0.607	0.802
Total 11th Grade Students	1.310	0.759
Total 12th Grade Students	-0.026	0.763
Principle Certification	6.747	10.955
Special Education Certification	4.443*	1.823
Pre-K Teacher Certification	-11.257	5.824
Kindergarten Teacher Certification	33.360**	7.481
Teacher Certification	-1.534	0.944
Counselor Certification	3.582	7.915
School Psychologist Certification	2.435	15.403
Speech Language Certification	-14.263*	6.924

Audiologist Certification	31.600	75.910
Social Work Certification	-15.547	8.071
Students on Free Lunch	7.338	72.602
Students on Reduced Lunch	90.674	243.884
Attendance Rate	0.894	4.273
Drop Out Rate	-1.548	6.216
Graduation Rate	0.337	0.840
Total In-School Suspension	-3.019*	1.349
Total Out-of-School Suspension	-28.360**	8.002
Total Expulsion	-4.269	8.657
Total Other Disciplinary Action	2.131	1.156

Note: 277 recorded observations, $R^2 = 0.831$, $p < .01$
* represents $p < .05$
** represents $p < .01$

Table 11. Ordinary Least Squares Regression Predicting Restraint Minutes at the District Level in the 2014-15 School Year

Variable	Coefficient	Standard Error
Students Restrained 2014-15	8.355**	1.895
Incidents of Restraint 2014-15	2.513**	0.245
Minutes of Seclusion 2014-15	0.060**	0.020
Students Secluded 2014-15	-3.385	1.799
Incidents of Seclusion 2014-15	-0.757**	0.283
Students on Free Lunch	150.977*	61.142
Students on Reduced Lunch	-310.328	220.399
Attendance Rate	-2.137	3.912
Drop Out Rate	2.889	5.378
Graduation Rate	0.242	0.717
Principle Certification	-8.088	11.171
Special Education Certification	3.579*	1.600
Pre-K Teacher Certification	7.964	6.712
Kindergarten Teacher Certification	0.981	4.108
Teacher Certification	1.521**	0.571
Counselor Certification	-8.052	6.826
School Psychologist Certification	30.465*	12.741
Speech Language Certification	-33.888**	7.260
Audiologist Certification	-19.864	38.706
Social Work Certification	-21.887**	7.702
White Students	-0.207	0.209
Asian Students	0.249	0.255
Black Students	-0.393	0.227
Hispanic Students	0.004	0.219
Native American Students	-0.615	0.373
Hawaiian/Pacific Islander Students	-0.399	1.710
Multiple Races Students	-0.595	0.313
Male Students	0.382	0.406
English Learner Students	-0.457**	0.134
Students with Disabilities	-0.126	0.157
Total In-School Suspension	6.225**	1.095
Total Out-of-School Suspension	10.191	6.786
Total Expulsion	6.268	7.765
Total Other Disciplinary Action	-5.517**	0.930

Note: 277 recorded observations, $R^2 = 0.950$, $p < .01$

* represents $p < .05$

** represents $p < .01$

Table 12. Ordinary Least Squares Regression Predicting Seclusion Minutes at the District Level in the 2014-15 School Year

Variable	Coefficient	Standard Error
Students Secluded 2014-15	37.588**	5.156
Incidents of Seclusion 2014-15	7.948**	0.744
Minutes of Restraint 2014-15	0.596**	0.199
Students Restrained 2014-15	-9.856	6.163
Incidents of Restraint 2014-15	-1.519	0.919
Students on Free Lunch	-441.753*	192.618
Students on Reduced Lunch	-345.384	695.650
Attendance Rate	6.950	12.302
Drop Out Rate	-7.608	16.916
Graduation Rate	1.050	2.254
Principle Certification	29.659	35.118
Special Education Certification	3.570	5.079
Pre-K Teacher Certification	88.043**	20.393
Kindergarten Teacher Certification	25.340*	12.817
Teacher Certification	-6.404**	1.773
Counselor Certification	-33.339	21.421
School Psychologist Certification	-89.643*	40.131
Speech Language Certification	36.494	23.731
Audiologist Certification	92.856	121.649
Social Work Certification	-0.813	24.626
White Students	-0.898	0.657
Asian Students	-0.297	0.803
Black Students	-1.429*	0.711
Hispanic Students	-0.723	0.686
Native American Students	0.828	1.179
Hawaiian/Pacific Islander Students	-21.696**	5.193
Multiple Races Students	-0.854	0.992
Male Students	1.763	1.276
English Learner Students	-0.003	0.432
Students with Disabilities	-0.638	0.493
Total In-School Suspension	8.205*	3.629
Total Out-of-School Suspension	50.173*	21.195
Total Expulsion	-41.178	24.310
Total Other Disciplinary Action	-6.365*	3.104

Note: 277 recorded observations, $R^2 = 0.925$, $p < .01$

* represents $p < .05$

** represents $p < .01$

Table 13. Ordinary Least Squares Regression Predicting Restraint Minutes at the Building Level in the 2013-14 School Year

Variable	Coefficient	Standard Error
Restraint Minutes Quarter 3 2013-14	0.854**	0.012
Restraint Minutes Quarter 2 2013-14	0.085**	0.029
Seclusion Minutes Quarter 4 2013-14	0.055**	0.007
Seclusion Minutes Quarter 3 2013-14	-0.081**	0.009
Seclusion Minutes Quarter 2 2013-14	0.011	0.008
Students on Free Lunch	8.317**	2.537
Students on Reduced Lunch	-9.154	10.465
Total In-School Suspension	0.178	0.562
Total Out-of-School Suspension	0.017	0.609
Total Expulsion	0.406	0.972
Total Other Disciplinary Action	0.328	1.638

Note: 1,340 recorded observations, $R^2 = 0.922$, $p < .01$

* represents $p < .05$

** represents $p < .01$

Table 14. Ordinary Least Squares Regression Predicting Seclusion Minutes at the Building Level in the 2013-14 School Year

Variable	Coefficient	Standard Error
Seclusion Minutes Quarter 3 2013-14	0.651**	0.032
Seclusion Minutes Quarter 2 2013-14	0.231**	0.033
Restraint Minutes Quarter 4 2013-14	0.920**	0.109
Restraint Minutes Quarter 3 2013-14	-0.784**	0.105
Restraint Minutes Quarter 2 2013-14	-0.044	0.120
Students on Free Lunch	-5.254	10.410
Students on Reduced Lunch	-38.261	42.777
Total In-School Suspension	3.166	2.294
Total Out-of-School Suspension	1.545	2.491
Total Expulsion	-2.177	3.972
Total Other Disciplinary Action	3.584	6.695

Note: 1,340 recorded observations, $R^2 = 0.481$, $p < .01$

* represents $p < .05$

** represents $p < .01$

Table 15. Ordinary Least Squares Regression Predicting Restraint Minutes at the Building Level in the 2014-15 School Year

Variable	Coefficient	Standard Error
Reporting Period 1 Restraint Minutes 2014-15	0.123**	0.011
Reporting Period 1 Seclusion Minutes 2014-15	0.018**	0.007
Reporting Period 2 Seclusion Minutes 2014-15	0.028**	0.006
Students on Free Lunch	6.662	5.086
Students on Reduced Lunch	-17.856	20.647
Restraint Yes or No 2013-14	15.947**	2.811
Seclusion Yes or No 2013-14	6.998*	3.294
Total In-School Suspension	-0.725**	0.265
Total Out-of-School Suspension	0.075	0.077
Total Expulsion	0.895	1.515
Total Other Disciplinary Action	1.322	2.837

Note: 1,270 recorded observations, $R^2 = 0.224$, $p < .01$

* represents $p < .05$

** represents $p < .01$

Table 16. Ordinary Least Squares Regression Predicting Seclusion Minutes at the Building Level in the 2014-15 School Year

Variable	Coefficient	Standard Error
Reporting Period 2 Restraint Minutes 2014-15	0.602**	0.130
Reporting Period 1 Restraint Minutes 2014-15	-0.036	0.053
Reporting Period 1 Seclusion Minutes 2014-15	0.452**	0.031
Students on Free Lunch	-0.712	23.647
Students on Reduced Lunch	10.865	95.955
Restraint Yes or No 2013-14	17.466	13.216
Seclusion Yes or No 2013-14	54.099**	15.256
Total In-School Suspension	1.201	1.232
Total Out-of-School Suspension	-0.364	0.359
Total Expulsion	-12.925	7.032
Total Other Disciplinary Action	-5.011	13.182

Note: 1,270 recorded observations, $R^2 = 0.249$, $p < .01$

* represents $p < .05$

** represents $p < .01$