

NEW AMSTERDAM CONSULTING, INC.

Performance-based Standards for Youth Correction and Detention Facilities

2007 Research Report



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Executive Summary

Under a grant from the U.S. Department of Justice's Office of Juvenile Justice and Delinquency Prevention (OJJDP), the Council of Juvenile Correctional Administrators (CJCA) developed the Performance-based Standards for Youth Correction and Detention Facilities (PbS) system to help juvenile correction and detention facilities continuously improve conditions for their staff and the youth in their charge. In theory, these improvements are brought about by the "PbS Cycle" of collecting data related to juvenile facility operations, analyzing the data to identify areas of success and areas for improvement, and implementing plans to improve those areas identified in the analysis. This research aims to understand whether and how the PbS system impacts safety, order and security within juvenile facilities.

Every April and October, participating facilities submit to PbS general information about their populations; detailed information about every unusual incident that occurred during the month; information from the records of juveniles released during those periods; and surveys of current residents (youth climate surveys), staff (staff climate surveys) and residents released since the last data collection (youth exit interviews). Information from April and October data collection periods, 2004-2006, comprise this study's data. The anonymity promised to participating facilities by PbS currently makes it impossible to link survey, incident or record data to specific youth. Therefore, we can analyze how youth in a particular facility responded to the climate survey and to the exit survey, but we cannot compare any particular youth's responses across these two files, or to the youth record file.

To test the impact of the PbS system on safety, order and security within juvenile facilities, we adopted a multi-stage analysis strategy. The first stage consists of a series of multivariate Ordinary Least Squares (OLS) regression analyses to predict facility-level outcomes using facility-level independent variables. Using facilities as the unit of analyses over the course of six time periods results in a total sample of N=763. Because of the limitations of using facilities as the unit of analysis, we employed multi-level modeling in the second stage of our analysis to estimate the experiences of individual youth. This allowed us to estimate both group and individual-level variation in victimization into account; we use this technique to predict residents' scores on an aggregate victimization index. As a methodology, multi-level modeling is an advancement over OLS because it takes into consideration both individual-level and facility-level measurements. However, multi-level modeling by itself does not address the possibility that being the victim of one type of incident within a juvenile facility may be entirely independent from being the victim of another type of incident (though both are part of the same victimization index). As a result, the third stage of our analysis predicts the likelihood of each resident experiencing each type of incident. Since the dependent variables for these five models are dichotomous, indicating whether or not each event has happened, we estimated five logistic multi-level models using the SAS glimmix procedure. Following these analyses, we consider which facility-level factors are associated with the likelihood of suicide attempts, and we explore our measures of contraband within facilities.

The OLS regressions suggest that the type of facility (sex, function) matters, that facilities with higher rates of overall youth violence have higher rates of other negative outcomes, that facilities with contraband have higher rates of safety problems, and that facilities using punishments (especially restraints) more often also have higher rates of safety and order problems.

The multi-level analyses suggest that the experiences of individual youth are influenced by individual-level factors far more than by facility-level factors. Whether a youth understands facility rules, perceives the facility staff as helpful, and has ever been locked up contribute much more to the likelihood of being afraid, having something stolen, being abused, or getting in fights than most of the facility-level predictors used in the OLS analyses.





The analyses of suicide attempts largely coincide with prior work (see Gallagher and Dobrin 2005, 2006a) by finding that facilities with larger youth populations, private facilities, female-only facilities, and facilities that use restraints more often are more likely than other facilities to have a suicide attempt.

In interpreting these findings, it is important to acknowledge four limitations to the data. One, facilities choose to participate in PbS, rather than being randomly sampled from among all facilities nationwide. It is possible that participating facilities differ in important ways from non-participating facilities. Two, being forced to use facilities as the unit of analysis in the first stage of our analysis results in relatively small samples. Three, problems accounting for numbers of direct care staff make it difficult to interpret the complex relationship between staff-inmate ratio and negative outcomes. Four, our work suffers the same potential problem as any other analysis based on self-reported measures, in that we cannot discern between higher rates of misbehaviors and greater awareness of (or reporting of) misbehaviors.

Introduction

Under a grant from the U.S. Department of Justice's Office of Juvenile Justice and Delinquency Prevention (OJJDP), the Council of Juvenile Correctional Administrators (CJCA) developed the Performance-based Standards for Youth Correction and Detention Facilities (PbS) system to help juvenile correction and detention facilities continuously improve conditions for their staff and the youth in their charge. In theory, these improvements are brought about by the "PbS Cycle" of collecting data related to the seven areas of juvenile facility operations (i.e., safety, order, security, health/mental health, programming, justice and reintegration), analyzing the data to identify areas of success and areas for improvement, and implementing plans to improve those areas identified in the analysis.

At the heart of PbS is a set of standards that prescribe expected practices and processes, which, if properly implemented, propt to yield favorable outcome measures. These standards were drafted in 1996 by experts in each of the areas of juvenile facility operations using the best quantitative, qualitative and anecdotal data available at the time.

Unfortunately, our knowledge about the factors influencing safety, security, health, justice and programming within juvenile correctional and detention facilities in the U.S. is not very deep. The vast majority of existing studies on services within juvenile corrections is focused locally rather than nationally (see, e.g., Trulson 2007). Studies and evaluations tend to be commissioned by state agencies, and thus only consider institutions in individual states. Because of the existing disparity among how states deal with juvenile offenders, both in sentencing and treatment (Fagan and Forst 1996; Feld 1999), the dominance of state-level or institution-level case studies is problematic when trying to assess juvenile corrections as a national issue.

Furthermore, most of these local studies attempt to evaluate the outcomes of particular programs by measuring performance of incarcerated juveniles. Rather than asking about the quality of service delivery (e.g., educational, vocational, or social skills training), most studies seek to evaluate behavioral outcomes such as program completion, attainment of GRE, or recidivism among juveniles who receive institutional services (e.g., Sawicki, Schaeffer and Thies 1999). As a result we know a good deal about incarcerated juveniles' behaviors, but relatively little about the institutional climates to which they are exposed or the services offered to these juveniles.

An obvious and important exception to this lack of information is the Conditions of Confinement study from the early 1990s (Parent et al. 1994). The Conditions of Confinement study was the first nationally representative study of institutional climate and services within juvenile detention and correctional facilities. This research, based on the 1991 Census of Children in Custody, surveys mailed to 984





facilities, and 2-day site visits to 95 facilities, offers the best existing view of juvenile custodial facilities. In this study, Parent et al. (1994) find great disparities among the services and climates within facilities, and whether facilities conform to performance standards established by the researchers. The study finds that 50 percent or more of sampled facilities conform to these standards for only five of the 12 topic areas the researchers considered. Though most facilities meet standards on education, recreation, and treatment services, there are substantial deficiencies regarding overcrowding, security, health care, and the control of suicidal behavior.

With the Conditions of Confinement study, Parent et al. also perform multivariate regression equations to estimate the factors that predict rates of injuries, use of isolation, searches, suicidal behavior, and escapes. Their findings suggest that overcrowding, high staff turnover, and keeping juveniles in locked rooms or single cells may aggravate risks of violence within facilities. These results are consistent with other studies seeking to predict rates of disorder within juvenile correctional facilities. Most prior research finds that, in addition to individual juveniles' levels of violence prior to incarceration, correctional climate can have a significant effect on interpersonal violence within facilities. Overcrowding, heightened security, and abusive staff-juvenile interactions each are associated with reduced order and safety (Bottoms 1999; Feld 1977; MacDonald 1999; Peterson-Badali and Koegl 2002; Poole and Regoli 1983).

Though the above-described body of research on factors associated with safety, security and order is small, it dwarfs the existing literature on factors associated with institutional services such as health, justice, and programming. Some studies compare institutional services for juveniles across juvenile and adult correctional facilities (Forst, Fagan and Vivona 1989; Kupchik 2007; Lane et al. 2002), but there are few studies that consider the factors shaping service delivery within juvenile facilities. Most likely, this is a result of the dominance in the literature of single-state or single-site studies; since service delivery stems from state-level policies, there may be little variation to estimate within states or within facilities. Notable exceptions include qualitative studies (Bortner and Williams 1997; Miller 1991) that consider how facility administration shapes service delivery and the experiences of incarcerated juveniles. In general, these studies find that staff training and supervision and communication of program rules have substantial effects on service delivery. When juveniles feel fairly treated, rather than alienated by repressive controls, they are more likely to respond by refraining from violence and collaborating with facility staff to achieve programming goals (Miller and Ohlin 1985).

The lack of research in this area, and particularly the lack of nationally representative or even cross-state comparative research, highlights a substantial need for analysis of data to inform juvenile correctional facility administrators in their efforts to maintain safety, order, and service delivery. The conditions of confinement study alone is insufficient; as Parent et al. point out in their research summary, this study is limited by a reliance on overall conformance to standards rather than particular practices, the vagaries of self-reported data, and a focus on facilities rather than individual juveniles. Additionally, the study has very limited data on several important characteristics of facilities, such as provision of health care services, and the educational and treatment needs of incarcerated juveniles. Furthermore, it has been over 15 years since these data were collected.

At the heart of these problems is the fact that efforts to assess performance across correctional systems is severely limited by a lack of standardized data collection, data reporting, and operationalization of performance measures (Coe 1999; Kopczynski, and Lombardo; Wright 2005; see also Commonwealth of Massachusetts 2004). In response to this gap in our knowledge, other data have been collected since the conditions of confinement study, most notably the Census of Juveniles in Residential Placement (CJRP), the Juvenile Residential Facility Census (JRFC), and the Survey of Youth in Residential Placement (SYRP). Both the CJRP and JRFC collect aggregate level information about facilities. The CJRP counts the numbers of juveniles, by sex, age, and race/ethnicity, incarcerated in each state. The JRFC gathers information on facility characteristics, including size, security arrangements, deaths of juveniles in custody, and the numbers and types of programs offered. Both datasets gather very





important information, and they represent substantial advances over prior efforts to measure what happens within juvenile correctional and detention facilities. Yet these datasets need to be augmented by deeper investigations into individual juveniles' experiences within these facilities, since knowing what happens in state systems, overall, is insufficient. The SYRP, a relatively new data collection effort, should partially fill this gap in knowledge. Through interviews of youth, the SYRP measures the perceptions of individual juveniles concerning institutional disorder and programming. This, too, is a substantial improvement over prior data collection efforts, but it does not measure outcomes (other than by juveniles' perceptions), which could be used either as external validation of juveniles' perceptions or to better understand what shapes juveniles' perceptions.

In a series of recent publications, Catherine Gallagher and Adam Dobrin have used data from the JRFC and the CJRP to consider what characteristics of juvenile residential facilities are associated with higher likelihood of suicide attempts (Gallagher and Dobrin 2005, 2006a, 2006b). Specifically, they find that detention facilities, larger facilities, facilities that house relatively large populations of Black youth, and facilities that lock sleeping room doors have increased risks of either a suicide attempt or a suicide death. They also find that facilities that screen all youth within 24 hours of arrival have lower odds of serious suicide attempts. As we discuss below, we build on their research in this report.

In fall of 2005, New Amsterdam Consulting began analyzing the PbS data to address the need within the body of research on juvenile corrections. Our goal is to better understand how facilities can reduce unwanted incidents, such as injuries, assaults, suicidal behaviors, and escapes. In particular, we consider whether and how the PbS processes and expected practices, along with other covariates, are related to safety, order, and security outcome measures. The results of our first year of data analyses were reported in our 2006 report.

During the current fiscal year, we set out to replicate and extend this prior work by analyzing a much larger dataset. Additionally, we expand on our analyses from last year in three ways: 1) we have incorporated data from the Census of Juveniles in Residential Placement (CJRP) on residents' committing offenses; 2) we look more deeply at factors influencing the likelihood of suicide within PbS facilities; and 3) we explore our measure of "other" (non-drug/alcohol, non-weapon) contraband in greater depth. This document details the results of this work.

Methods

Data

Our first task was to assemble data from the PbS web-based facility reporting format into a dataset that could be analyzed using SPSS software. Given that the data reported by facilities are hierarchical rather than arranged as a "flat file" (which is necessary for a linear data analysis), this was a time intensive transformation. This process produced five files: (1) an overall facility file, including each facility's incident reports and administrative report, (2) a youth climate survey file, (3) a staff climate survey file, (4) a youth record file, and (5) a youth exit survey. Though we are able to aggregate youth and staff information to the facility level and append these aggregate data to the facility file, we do not have sufficient identifying information to link individual youth across these five files. That is, we can consider how youth in a particular facility respond to the climate survey and to the exit survey, but we cannot compare any particular youth's responses across these two files, or to the youth record file. It is important to note that our analyses would be strengthened by the ability to compare youths' responses across these different files. For example, this would allow us to gauge whether a youth's perceptions during his or her time in the facility (from the youth climate survey) have changed by the time the youth is released (from the youth exit survey). This might be an important indicator of a facility's success in helping youth develop prosocial attitudes and preparing them for their release.





We began the process of assembling the data in November 2006, using the Performance-based Standards data available at the time: the April and October reporting periods from 2004, 2005, and 2006. By using these six data collection periods, we are able to produce more robust and reliable analyses than in our 2006 report, for which we had access to only half as much data (three data collection periods). After assembling these datasets, we began the process of cleaning and coding the data. In sum, this process required us to inspect the data, remove “don’t know,” “refused to answer,” or other invalid responses as missing, and to search for outliers which may skew the results of our analyses.¹ Finally, where necessary we converted the measurements of facility, youth, and staff characteristics to the metrics established by the PbS standards. For example, rather than analyzing numbers of assaults, we consider the rate of assaults per 100 youth, as specified in the PbS standards.

Data Analysis Strategy

1. Ordinary Least Squares Analyses

We analyze the data in five stages. The first stage consists of a series of multivariate Ordinary Least Squares (OLS) regression analyses. OLS regression is used to predict a continuous dependent variable using several independent variables. The procedure results in regression coefficients, or slopes, which summarize the average effect of each independent variable on the dependent variable, while holding constant all other independent variables in the model. Since the outcomes specified in the PbS standards are continuous, this method is appropriate.² Thus, our OLS regression analyses allow us to predict facility-level outcomes using facility-level independent variables, thereby testing several of the relationships between expected practices and processes, and outcomes, that motivated the PbS standards.

We pool together data from the six time periods, which results in a total sample of N=763. To control for changes across time and to take into account the similarity of observations for each facility across the six time periods, we include fixed effects for the data collection period in all models.³

Unfortunately, though a sample size of N=763 is a substantial improvement over our prior analysis (N=318), it is still relatively small, which hinders our ability to include all potentially important predictors of safety, order and security outcomes. We are further limited by missing values on some of these variables, which results in the deletion of these cases from the regression analyses. In response to these issues, we trim our list of predictor variables by using stepwise regression procedures. This procedure adjusts each model to include only those independent variables that have a significant effect on our measured outcomes. We then replicate each model using only these variables. Though this produces several unique models, rather than having a consistent set of predictors, it also allows us to estimate more efficient and robust models.

With one exception, we model one equation for each safety, order, and security outcome measure listed in the PbS standards, with these outcomes as the dependent variables. The one exception is for the use of chemical restraints; with only seven reports of any use of chemical restraints across the 763 cases, there is insufficient variation on this measure to use in a regression equation. Appendix 1 lists these dependent variables, based on the safety, order and security outcomes listed in the PbS standards.

¹ Outliers can be especially problematic in a relatively small sample. Regression analysis procedures fit estimates to an entire sample, which means that a few extreme values can distort these estimates.

² The only exceptions to this are the outcomes that are expressed as proportions (e.g., proportion of days over residential capacity). Proportions are capped at a lower bound of 0 and an upper bound of 1, and are thus not continuous. However, since these measures can assume any value within this range, we treat them as continuous variables in our analyses.

³ As the data grow and a greater number of data collection periods are added to future analyses, a more rigorous time series analysis will be possible.





Our initial approach was to include as independent variables the practices and expected processes listed in the PbS standards. However, very few of the proposed indicators for safety, order, and security are actually measured in the data collection instruments. We are able to include only 3 listed predictors of safety: the proportion of youth who are assigned to housing based on a classification system, the proportion of youth who are screened for suicide risk within one hour of presentation for admission, and the proportion of youth who are involved in suicidal behavior that are assessed by mental health staff. We are able to include 2 listed predictors of order, the proportion of youth who have a behavior management system and the proportion of youth who claim to know the facility rules, but none of the listed predictors of security outcomes.

In addition to these independent variables, where appropriate we include a number of covariates that may be related to safety, order, and security within juvenile correctional facilities.⁴ These variables can be grouped into five categories (see Appendix 1 for a full list of independent variables):

1. Facility type and location (private/public, rural/suburban/urban, male/female/coed, correctional/detention/assessment);
2. Facility population characteristics (proportion of youth who are convicted of a person offense, size of youth population, proportion of staff and of youth who are racial/ethnic minorities, ratio of staff-to-youth);
3. Youth activities (overall youth violence, rate of weapon contraband incidents, rate of alcohol or drug contraband incidents, and rate of other contraband incidents);
4. Facility punishments (use of restraints, isolation, segregation, confinement); and
5. Other facility indicators (proportion of days over residential capacity, age of facility, length of participation in PbS data collection).

Along with the above listed practices and expected processes, we consider how each of these factors influences the safety, order and security outcome measures.

One of the variables listed above, the proportion of youth who are convicted of a person offense, is a variable we introduced this year. Since the proportion of youth who are violent prior to coming to a facility is presumably an important predictor of disorder within the facility (Trulson 2007), including this new variable was a priority of ours for the 2006-2007 data analysis. We produced this variable by importing data from the Census of Juveniles in Residential Placement (CJRP), with help from the National Center for Juvenile Justice. Once this data-sharing effort was approved by the OJJDP, the NCJJ staff supplied us with a list of all facilities included in the CJRP and the percentages of youth inmates within each facility that are incarcerated for a variety of offense types (person, property, drug, public order, technical violation, and status). We then matched the participating facilities with the facilities included in the CJRP data, and imported the offense category percentages into our facility-level file. In doing so, we found that we were unable to match some PbS participating facilities to the CJRP data, for two reasons. One reason was that the PbS facility was not included in the CJRP data, or at least not labeled in such a way that we could identify it (based on facility name, state, and address). The second was that some facilities are coded as a single facility in the CJRP data, but as two facilities in the PbS data. To resolve this problem, the NCJJ sent us a second dataset, this time separating out youth who are listed as detained and youth who are listed as in the correctional population. This solution helped substantially, but left some facilities that still did not match successfully to the PbS data. Of the 210 facilities that have participated in PbS at any time during the past 6 data collection periods, we were able to import CJRP data for 172 of them (81.9%). Given the importance of this variable, we use it despite the fact that we these facilities drop from our analysis as missing, leaving us a reduced sample size of N=650.

⁴ Covariates are withheld if they are inappropriate given any dependent variable. For example, youth violence and contraband are withheld when predicting rates of youth misconduct, and the use of restraints is withheld when predicting the use of facility punishments.





2. Multi-level Models: Victimization Scale

The above analyses allow a clear interpretation of how the expected practices and process, along with the covariates, predict outcome measures. Yet one important weakness of the OLS regression models is that they only consider measurements at the facility level, and none at the individual level. That is, these models only consider information about facilities as a whole, and not how the experiences of individual youth might differ within facilities.

In the following set of analyses we use variations of multi-level modeling procedures to estimate youths' experiences. When considering nested data, such as considering data from individual youth who are "nested," or grouped, within facilities, Ordinary Least Squares (OLS) regression is inadequate. OLS regression assumes independence of error terms, which is unlikely when one has groups of cases within the sample. Multi-level modeling procedures account for this problem by estimating separate regression equations for each facility and then an overall model that takes both group and individual level variation into account. Using this method,⁵ in the following analyses we include both individual-level and facility-level independent variables as predictors of individual youths' experiences in juvenile facilities. To avoid including multiple nesting levels, and to ease interpretation of the data, we use only the most recent data collection period included, October 2006.

The dependent variable in this stage of the analysis is a victimization scale that counts the number of affirmative responses each youth gave in the youth climate survey to the following questions:

- ⇒ Since you have been here, have you had personal property stolen directly by force or by threat?
- ⇒ Since you have been here, have you been beaten up or threatened with being beaten up?
- ⇒ Since you have been here, has anyone forced you to engage in sexual activity?
- ⇒ Since you have been here, have you been involved in any fights inside this facility?

To predict victimization, we include the facility-level covariates listed above as independent variables for the OLS analyses, as well as the following individual-level predictors:

- ⇒ whether the youth claims to understand facility rules;
- ⇒ whether the youth responds that the school in the facility is good;
- ⇒ whether the youth has ever been locked up for misbehavior; and
- ⇒ a scale measuring perceived staff helpfulness.⁶

We analyze this model in two steps. First, we include a baseline model excluding the independent variables. This model tells us the proportion of the variance in the victimization scale that is explained by variation among individuals, and the proportion explained by variation among facilities. In the second step, we include all of the independent variables. Since this procedure expands the data to include each youth surveyed, we have a much larger dataset. Of a total of N=3927, there are N=3639 cases included in the analyses (with the rest dropped due to a missing value on one of the included variables).

3. Multi-level Models: Discrete Disorder Outcomes

Though the multi-level analysis predicting victimization is an advance over the OLS models because it takes into consideration both individual-level and facility-level measurements, using the victimization index as a dependent variable may be problematic. The four incidents included – fighting, being beaten up, having something stolen, and being sexually assaulted – may be entirely independent events rather

⁵ Multi-level models are estimated using SAS (9.1) mixed proc.

⁶ This index has a cronbach's alpha of .884 in the full dataset. It was produced from a principal component factor analysis using varimax rotation. The variables included are youth responses to whether staff show residents respect, whether staff are good role models, whether staff seem to genuinely care about residents, whether staff use force only when they really need to, whether staff make more positive than negative comments, and whether staff are fair about discipline issues.





than accurately comprising a single victimization scale. As a result, we also estimate multi-level models where we predict the likelihood of each resident experiencing each of these separate events. We also include a model predicting whether respondents report being afraid for their safety. Since the dependent variables for these five models are dichotomous, indicating whether or not each event has happened, we cannot use standard multi-level modeling procedures, which assume a continuous dependent variable. Instead, we estimate five logistic multi-level models using the SAS glimmix procedure.⁷ This procedure mirrors the multi-level analyses for the victimization scale, in that we include the same independent variables, but is better suited for a dichotomous dependent variable.

4. Analysis of suicides in facilities

As we state above, in a series of recent publications, Gallagher and Dobrin (2005, 2006a, 2006b) make a substantial contribution to our understanding of the factors associated with risk of suicide attempts in juvenile facilities. We replicate Gallagher and Dobrin's analyses using the PbS data. Like Gallagher and Dobrin, we predict the likelihood of suicide attempt. Our list of independent variables includes most of the variables they include, as well as additional variables that control for important features of residential facilities. We use the same independent variables as listed above for the OLS regressions, but we also include variables for time until screening and who screens juveniles for suicide risk (coded as medical staff, non-medical staff, and other); these variables are taken from data in the youth records file. The only variables included in Gallagher and Dobrin's analyses that we are unable to include here are security level and whether the facility has on-site mental health care (which they find to be associated with a higher likelihood of suicide attempts).

5. Analysis of Contraband

In our 2006 report, we discussed the fact that "other" (non-drug/alcohol, non-weapon) contraband was significantly associated with a number of negative outcomes, though it was not entirely clear how to interpret this result. That is, we were (and are) unable to determine if this result is due to a surveillance artifact (whereby facilities with tighter police find more contraband and are more likely to detect and/or report other misbehaviors), a causal effect of contraband on other types of behaviors, or whether contraband is an indicator of lax security. To help clarify these questions, we conducted a supplemental survey of participating facilities using the Facility Survey feature of the PbS online data collection instrument. In it, we asked facilities about their procedures for discovering contraband, how contraband is documented, if contraband searches are routine, how "contraband" is defined, and the extent to which facilities believe they are successful at discovering contraband (see Appendix 8). Because Facility Surveys are supplemental to the regular data collections, they are not mandatory. A total of 87 staff from 77 facilities completed our contraband survey. In our fifth and final stage of analyses for this report, we discuss our preliminary investigation into what the contraband measure is likely to actually reflect.

Results

OLS Regression

Overall, most of the regression models predicting safety, order, and security outcomes are statistically significant, which tells us that they are valid predictors of the outcome measures. The only model that fails to reach statistical significance is the model predicting drug contraband incidents. The full results for all statistically significant models (at $p < .05$) are presented in Appendices 2 through 4.

⁷ We use a ridged Newton-raphson algorithm in estimating these models.





1. Safety Outcomes

Results for the safety outcome measure models are in Appendix 2.⁸ In these models, the only expected practices and process which are measured by the PbS data and included here are whether youths are classified upon arrival (SaEP1), the proportion of youth who are screened for risk of suicide within one hour of admission (SaEP7), and the proportion of youth who are involved in suicide attempts that are assessed by medical staff (SaEP12). Since only youth who are involved in suicide attempts have valid measurements on this last variable, we include it only in the models predicting suicidal behaviors – otherwise, we would be introducing too many missing values into our analyses. The only statistically significant relationship we find between any of these three expected practices and our safety outcome measures is for a classification system; facilities with relatively large proportions of youth who are classified have higher rates of assaults on staff and lower rates of fear among youth.

Among the covariates included in these models predicting safety outcomes, we find a number of statistically significant relationships. First, the type and location of facilities matter. Public facilities have lower rates of suicidal behaviors without injury than private facilities. Rural facilities have higher rates of youth injuries, youth injured by youth, and assaults on youth, but lower rates of abuse/neglect and lower staffing ratios than urban facilities. Facilities in suburban areas have higher rates of abuse/neglect, youth injured by youth, and assaults on youth and staff, and lower rates of suicidal behavior with injury, all relative to urban facilities. Relative to male-only facilities, female-only facilities have higher rates of youth injuries, suicidal behavior with injuries, high staffing ratios, higher proportions of youth and staff who are afraid for their safety, and lower rates of assaults on youth. Co-ed facilities have higher rates of youth injuries, higher proportions of days over residential capacity, and lower rates of staff injuries than male-only facilities. Also, correctional facilities have lower rates than detention centers or assessment centers of youth injured by youth, youth injured by staff, injuries through restraint application, and assaults on youth, and lower proportions of days over residential capacity.

Second, we find that facility populations matter. Facilities with larger populations have lower rates of staff injuries, youth injuries by staff, injuries by restraint application, and rates of assaults on youth and staff, as well as lower staffing ratios. Yet facilities with larger populations also have higher rates of suicidal behaviors with injury and of fear among youth and staff, as well as higher proportions of days over residential capacity. The proportion of staff who are racial/ethnic minorities is positively related to rates of youth injured by other youth, the proportion of days over residential capacity, suicidal behavior without injury, assaults on youth, and fear among both youth and staff. Facilities with larger proportions of youth who are racial/ethnic minorities have higher rates of youth injuries and assaults on staff.

Contrary to our expectations and to prior research (Trulson 2007), the variable we obtained from CJRP data regarding the proportion of youth in each facility who are incarcerated for a person offense was not a very good predictor of safety outcomes. This variable is significant in only two models, neither of which measures youth behaviors. That is, the proportion of youth who were convicted of person offenses is positively related to the proportion of days over residential capacity and the average staffing ratio, but does not seem to be strongly linked to inmate misbehavior.

Additionally, we find that staff-to-inmate ratios have a significant relationship with several safety outcome variables, in that higher staffing ratios are associated with higher rates of youth injured by other youth, assaults on staff, fear among both youth and staff, and lower rates of suicidal behavior with injury. Based on prior analyses (see 2006 report), we tested whether adding additional terms (the square and cube function of staffing ratio) improved our models. Adding the squared staff-to-youth ratio improved our prediction of youth injuries by youth and assaults on staff, suggesting that each of these relationships is non-linear and levels out as staffing levels increase. We diagram this relationship below, in Figure 1.

⁸ To conserve space, we do not report standard errors in Appendix 2 and Appendix 3.





The cubed staffing level did not improve any of our safety models. We discuss these results in greater detail below.

Third, negative youth activities are associated with negative facility outcomes. Facilities with relatively high rates of overall youth violence also have high rates of abuse/neglect, youth injured by staff, suicidal behavior without injury, fear among youth, and injuries from restraint application, as well as higher average staffing ratios. We also find that levels of non-drug, alcohol or weapon contraband incidents are positively related to rates of youth injuries overall, suicidal behavior with and without injury, and assaults on youth, and negatively related to over-crowding.

Fourth, we find that frequencies of punishments are positively associated with a variety of undesirable outcomes. Facilities with high numbers of restraint incidents have high rates of youth injuries, staff injuries, youth injuries by staff, suicidal behaviors with and without injuries, injury through restraint application, assaults on youth and staff, and fear among youth and staff, as well as higher average staffing levels. Facilities with high numbers of isolation incidents have higher rates of fear among youth and higher proportions of days over residential capacity. Facilities with high numbers of segregation incidents have higher rates of youth injured by other youth and of fear among youth, and yet lower rates of fear among staff.

Finally, with regard to other facility characteristics, our results are less clear. We find that older facilities have lower rates of suicidal behaviors without injury, lower proportions of days over residential capacity, and higher average staffing ratios. Additionally, facilities with relatively high proportions of days over residential capacity have lower rates of youth injuries and suicidal behaviors with injuries, yet higher rates of fear among staff.

2. Order Outcomes

In our analyses of order goal outcome measures, we are able to include two expected practices and processes: youths' reported comprehension of facility rules (OEP1), and whether the facility has a behavior management system with rewards and incentives (OP2). These results are displayed in Appendix 3. Importantly, we find that facilities with large proportions of youth reporting that they understand facility rules have lower rates of youth misconduct. The proportion of youth who are on a reward-oriented behavior management system is not significantly related to any of the order outcomes.

With regard to facility type and location, we find that public facilities have lower rates than private facilities of staff sanctions and higher rates of punishments ended within either 4 or 8 hours. Facilities in rural areas have lower rates than urban facilities of mechanical restraint incidents, isolation/confinement incidents, lower average idle times, and lower proportions of punishments ended within either 4 or 8 hours. Suburban facilities have lower rates than urban facilities of "other" restraint incidents, and isolation/confinement incidents, higher average isolation times, and lower proportions of punishments ended within either 4 or 8 hours. Relative to male-only facilities, coed facilities have higher rates of youth misconduct, mechanical restraint incidents, and isolation/confinement incidents, and lower rates of staff sanctions, "other" restraint incidents, and lower average isolation times. Relative to male-only facilities, female-only facilities have higher rates of "other" restraint incidents. Compared to detention or assessment centers, correctional facilities have lower rates of youth misconduct, physical restraint incidents, and "other" restraint incidents, higher rates of mechanical restraint incidents, and higher average isolation times.

Regarding facility population characteristics, we find that facilities with larger youth populations have higher rates of both mechanical and chair restraint incidents. Facilities with large proportions of staff who are racial/ethnic minorities have lower rates of youth misconduct, chair restraint incidents, mechanical restraint incidents, and isolation/confinement incidents, but they also have higher rates of staff sanctions,





higher average isolation times, and they end fewer punishment incidents within either four or eight hours. Facilities housing large proportions of youth who are racial/ethnic minorities have lower rates of isolation/confinement incidents and higher rates of mechanical restraint incidents. We find that staff-to-youth ratio again is positively related to rates of youth misconduct and physical restraint incidents, as well as to the proportion of punishments ended within either 4 or 8 hours. For two of these models, those predicting youth misconduct and physical restraint use, this relationship is non-linear (as illustrated by the improvement in predictive ability when adding staffing ratio squared and cubed).

Although the proportion of youth incarcerated for person offenses was not related to youth misbehaviors, it is related to four order outcomes. Facilities with larger proportions of youth incarcerated for person offenses have, on average, lower rates of staff sanctions, higher rates of mechanical restraints and chair restraints, and lower average isolation times.

Next, we again find that negative youth behaviors are related to undesirable outcomes. The overall level of youth violence is positively related to rates of physical restraint incidents, mechanical restraint incidents, and use of isolation/confinement. And, facilities with high rates of other (non-drug, non-alcohol, non-weapon) contraband have high rates of youth misconduct, mechanical restraint incidents, and isolation/confinement incidents, and lower average isolation times. We explore the significance of contraband further below.

With regard to other facility characteristics, we find that older facilities have higher rates of youth misconduct, chair restraint incidents, and isolation/confinement incidents. Facilities that have been participating in PbS data collection longer have higher rates of youth misconduct, staff sanctions, and chair restraint incidents, yet lower average idle hours. Additionally, the proportion of days a facility is over capacity is positively related to physical restraint incidents, chair restraint incidents, and the proportion of punishments ended within 4 hours, but negatively related to other restraint incidents.

3. Security Outcomes

Of the analyses discussed here, our models predicting security goal outcomes are by far the least robust. We list the results from these models in Appendix 4. We achieve a statistically significant model fit for six of the seven models (all but drug contraband incidents).

Regarding facility type and location, we find that suburban facilities have lower rates than urban facilities of attempted escapes, female-only facilities have higher rates than male-only facilities of attempted escapes, and co-ed facilities have lower rates than male-only facilities of lost tools. Compared to detention and assessment centers, correctional facilities have higher rates of escapes, attempted escapes, and weapon contraband incidents.

Relatively few facility population characteristics are significantly related to the security outcomes. Facilities with larger youth populations have lower rates of attempted escapes and other contraband incidents, but higher rates of lost keys. Facilities with higher proportions of racial/ethnic minority staff have higher rates of attempted escapes and lost keys. Facilities with higher proportions of racial/ethnic minority youth have higher rates of weapon contraband.

As with the results we report above, the proportion of youth who are incarcerated for person offenses does not display the expected relationship of predicting greater problems. In fact, facilities with larger proportions of youth incarcerated for person offenses have, on average lower rates of escapes and other contraband.





With regard to youth activities, the results indicate that attempted escape rates are higher when facilities have higher overall youth violence rates and higher rates of drug contraband. And, facilities with higher rates of youth contraband have higher rates of lost keys.

Facilities with large numbers of restraint incidents have relatively high rates of attempted escape incidents, facilities with large numbers of isolation incidents have relatively high rates of other contraband incidents, and facilities with large numbers of segregation incidents have lower rates of attempted escapes and higher rates of other contraband incidents. Facilities with larger numbers of confinement incidents also have higher rates of weapon and other contraband incidents.

Finally, we find that the proportion of days over residential capacity is negatively related to other contraband, and that older facilities have higher rates of attempted escapes as well as weapon contraband incidents.

In sum, then, the OLS regression models demonstrate some consistent and expected relationships between the process and expected practices and the outcomes, yet they also demonstrate some results that are inconsistent across models. The relatively consistent and expected results we see include:

- ⇒ Correctional facilities have lower rates than detention facilities or assessment centers of youth misconduct, injuries, and assaults on youth;
- ⇒ Facilities with larger aggregate youth violence problems are also more likely to see higher rates of several problems, such as abuse/neglect, youth injured by staff, youth injured by restraint application, fear among youth, and use of physical restraints;
- ⇒ Facilities with high rates of other contraband have higher rates of youth misconduct, youth injuries, suicidal behaviors, assaults on youth, and numbers of isolation/confinement incidents; and
- ⇒ Punishments for youth, and especially the use of restraints, are related to a variety of negative outcomes, including (but not limited to) youth injuries, suicidal behaviors, assaults on youth and staff, fear among youth and staff, and other contraband.

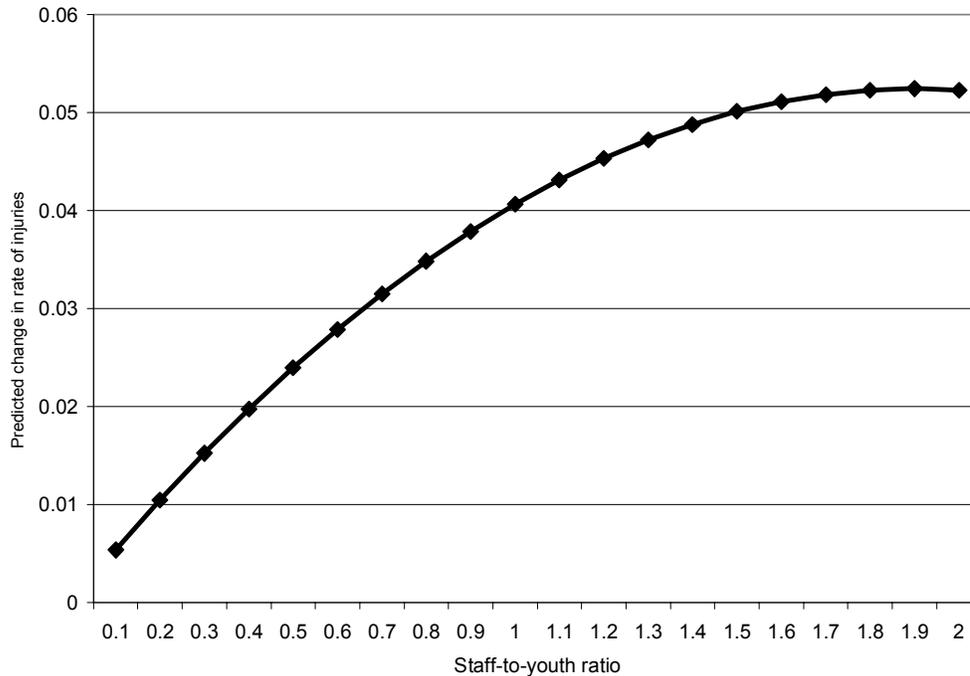
Additionally, some variables demonstrated inconsistent results across models:

- ⇒ Facilities with large youth populations have lower rates of staff injuries, youth injured by staff, injury by restraint application, and assaults on youth and staff, yet these facilities also have higher rates of suicidal behaviors without injury, fear among youth and fear among staff;
- ⇒ Facilities with larger proportions of staff who are racial/ethnic minorities have higher rates of youth injured by youth, suicidal behavior without injury, assaults on youth, fear among youth and staff, and staff sanctions, yet they have lower rates of youth misconduct;
- ⇒ Facilities with a larger proportion of days where they are over residential capacity have lower rates of other contraband, youth injuries, suicidal behaviors with injuries, and other restraint incidents, as well as ending more punishments within 4 hours, and yet they have higher rates of fear among staff, use of physical restraints, and use of chair restraints;
- ⇒ Facilities with higher staff-to-youth ratios have higher rates of youth injured by youth, assaults on staff, fear among youth and staff, youth misconduct, and physical restraint use, yet they have lower rates of suicidal behavior with injury and they end more punishments within either 4 or 8 hours. For four of these unexpectedly positive relationships between staffing levels and negative outcomes (youth injured by youth, assaults on staff, youth misconduct, and physical restraint use), we found that the relationship between staffing ratio and the outcomes is nonlinear. For these outcomes, increasing staffing ratios predict higher rates of negative outcomes to a certain point, at which the outcome rates begin to decline. We diagram this below, in Figure 1, for youth injured by other youth.





Figure 1. Staff-to-youth ratio and Injuries to youth by youth (per 100 residents)



Several of these unexpected and inconsistent results are based on data that seem to be incomplete. The PbS data certainly represent an important and significant step forward in our knowledge of juvenile correctional facilities, yet as we note in our summary and discussion, there is still room to improve on what data we collect and how we collect it. Our unexpected results highlight two such data collection issues. One, the PbS data may be inaccurate regarding measurements of race and ethnicity among both staff and inmates; this becomes apparent when the sum of the racial/ethnic breakdowns do not match other population data (i.e., end of day counts). Two, the data do not distinguish between different types of staff members, and thus they aggregate dissimilar groups such as security staff and treatment or counseling staff. It is possible that large numbers of security officers may impact rates of disorder (see Gaes and McGuire 1985) differently than large numbers of treatment and counseling staff, but we are unable to explore this issue further given the data.

Finding that facilities that house relatively large numbers of youth have lower rates of staff injuries, youth injured by staff, injury by restraint application, and assaults on youth and staff deserves mention here as well. This result contradicts the widespread belief that smaller facilities will help youth more than large facilities and will lead to less youth misbehavior. Yet evidence documenting this relationship is not easy to find. Although one prior study finds that youth in smaller facilities have more positive perceptions of correctional environmental quality (Armstrong and MacKenzie 2003), most studies of both juvenile and adult facilities that include facility size as an independent variable – including the initial Conditions of Confinement study (Parent et al. 1994) – fail to find a significant effect of facility size on assaults or other types of inmate misbehavior (Farrington and Nuttal 1980; Gaes and McGuire 1985; Harer and Steffensmeier 1996). Moreover, some studies find that larger facilities have less inmate-inmate violence than smaller facilities (e.g., McCorkle, Miethe and Drass 1995). We caution against a literal interpretation of this result for two reasons. One reason is that our results may be due to a surveillance artifact, whereby more inmate misbehavior goes undetected or unreported in larger facilities than in smaller facilities, and thus inmate misbehavior falsely appears to be more prevalent in smaller facilities. Given that some small facilities are very small (e.g., fewer than 10 youth), this seems likely. The second reason





is that facility size is important for reasons other than only inmate misconduct, especially for youth; one would expect smaller facilities to be better than larger facilities at helping youth successfully reintegrate into society upon their release, and one would expect larger facilities to have a greater depth of resources. As we continue our analyses using additional data collection periods, which will make our analyses more robust, we will continue to monitor the relationship between facility size and inmate misbehavior.

Multi-level Models: Victimization Scale

In Appendix 5, we list the results of the multi-level model using the victimization scale as the dependent variable. The first step in estimating individual level victimization was to estimate a base model with no independent variables. This model is helpful for estimating the within- and between-facility variance in the dependent variable. Here we find that the majority of variation in victimization is across individuals within facilities (82.2%), with 17.8% between facilities.

Appendix 5 lists the coefficients for all fixed effects variables in the model. Note that each individual-level variable is also included as a random effect, to account for variation within facilities. These results tell us whether the following variables help explain victimization. The only facility-level variables that significantly predict the victimization index are number of isolation incidents, aggregate youth violence in a facility, and drug / alcohol contraband incidents; each of these is positively related to victimization. Yet of the four individual-level variables, three are statistically significant predictors of victimization: understanding facility rules, the staff helpfulness scale, and having been locked up. That is, youth who claim to understand facility rules and who rate staff as helpful score significantly lower on the victimization scale. In contrast, youth who have been locked up in their facility for any misbehavior score significantly higher on the victimization scale. Thus, this model suggests that victimization experiences vary substantially among youth within facilities, and that those who perceive staff as more helpful, understand rules, and avoid punishments are less likely to be exposed to an array of negative experiences.

Multi-level Models: Discrete Disorder Outcomes

In our third set of regression models, we predict the likelihood of five discrete disorder outcomes that are reported by some youth: fear, theft, physical abuse, sexual abuse, and fights. These models, reported in Appendix 6, use both facility-level and individual-level variables to predict the likelihood of a particular youth reporting each of these outcomes.

To begin, we see that only three of sixteen facility-level variables are statistically significant facility-level predictors of fear. Youth who are in suburban facilities are less likely than youth in urban facilities to claim that they are afraid. Youth in facilities with higher overall violence rates and in facilities with higher uses of isolation are more likely than others to claim that they are afraid. Regarding the individual-level variables, three of four variables, all but rating the school as good, are significant predictors of fear. Youth who claim to understand the facility rules and who rate the staff as helpful are less likely to be afraid, while youth who have been locked up for misbehavior are more likely to be afraid.

In the next model, which predicts the likelihood of having had something stolen, we see youth in correctional facilities (relative to detention or assessment centers) and in facilities with higher overall youth violence rates are more likely than others to claim that they are afraid; youth in rural facilities are less likely than those in urban facilities to be afraid. Understanding the facility rules and rating the staff as helpful are associated with a decreased likelihood of having something stolen, while those who are locked up are more likely to have had something stolen.





The results for the third model, predicting physical abuse, are fairly similar. Here we see that the only significant facility-level predictor is overall youth violence rate; youth in facilities with more youth violence are more likely to be victims of physical abuse. Additionally, we find that youth who understand the rules, who rate the staff as helpful, and who haven't been locked up are less likely to be abused.

The model predicting the likelihood of sexual abuse also shows that the only significant facility-level predictor is overall youth violence, with youth in facilities with more violence more likely to suffer sexual abuse. And, youths' understanding of rules, as well as whether they have been locked up, influence the likelihood of sexual abuse.

Finally, in our model predicting likelihood of involvement in fights, we find that youth in co-ed facilities are less likely than those in male-only facilities to have been in a fight, and that the overall youth violence rate again predicts greater likelihood of problems, this time of being in a fight. Moreover, we again find that youth who rate staff as helpful are less likely to have been in fights, and youth who have been locked up are more likely to have been in fights.

Overall, there are several similarities across these five logistic multi-level models. Clearly, and as one would expect, youth in facilities with more overall youth violence are more likely to have experienced fear, abuse, theft, or fighting. No other facility-level variable was significant in at least two of the five models. In contrast, the individual-level variables appear far more influential in predicting discrete victimization experiences. Again, we consistently find that when youth understand facility rules, they view staff as helpful, and they do not get locked up for misbehavior, they are less likely to be afraid, to fight, or be the victim of theft or abuse.

Suicide Analysis

We report the results of our analyses on suicide attempts in Appendix 7, in six models. Models 1 and 2 include a series of variables indicating the proportion of youth in each facility that was screened prior to admission, within one day of admission, and within a range of 1 to 7 days of admission; models 3 and 4 replace this series of variables with a continuous variable of hours between admission and suicide screening (juveniles screened before admission or over a month after admission are removed); models 5 and 6 include a dummy variable indicating whether all youth are screened in each facility. Models 1 through 4 also include variables indicating the proportion of youth in each facility that were screened by each group of staff (we exclude medical staff as a contrast). Models 1, 3, and 5 conform the closest to Gallagher and Dobrin's analyses; in models 2, 4, and 6 we include additional variables, which we also use in the above analyses, that might be related to the likelihood of suicide attempts occurring in facilities.

Our results partially confirm the results found by Gallagher and Dobrin, since we also find that facilities with larger youth populations, private facilities, facilities with female juveniles, and facilities that use restraints more often have a greater likelihood of a suicide attempt. Like their analyses, we find that detention is positively related to the likelihood of a suicide attempt, but this result fails to reach statistical significance in any of our six models (in models 1, 3, and 5, it is significant at $p < .10$). We also confirm their results that the proportion of youth who are African American is positively related to the likelihood of a suicide attempt, but in only 1 of our 6 models (model 3).

Our results contradict their work in three ways. First, we find that overcrowding is negatively related to suicide attempts, a result which is surprising and contradicts prior research (e.g., Parent et al. 1994). It is possible that one consequence of overcrowding is that residents have fewer opportunities to attempt suicide. Another possibility is that staff in overcrowded facilities are overburdened (relative to staff in less crowded facilities) and have little time to document incidents, and thus some suicidal behaviors go unrecorded in overcrowded facilities. Second, we find no relationship between timing until screening and likelihood of suicide attempts. Third, we find that the training of the screening is significantly related to





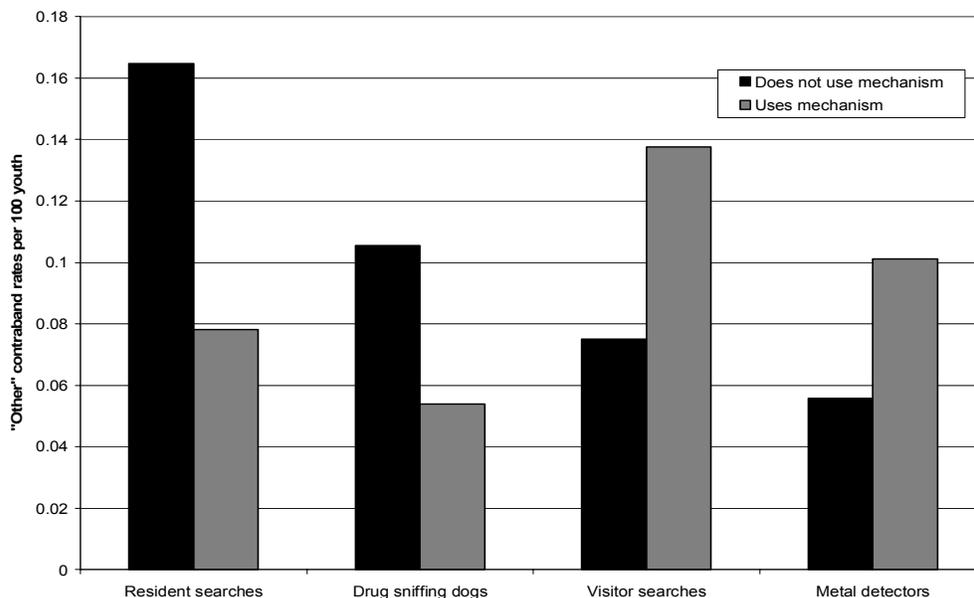
suicide attempts, as the proportions of non-medical staff and other staff who perform suicide screening (rather than medical staff) are both negatively and significantly related to suicide attempt likelihood. This last result, that facilities which make greater use of trained non-medical staff and other staff as suicide screeners have lower rates of suicide attempts, is particularly surprising. Though Gallagher and Dobrin do find this as well, their coefficients are not statistically significant (Gallagher and Dobrin, 2005: see Table 3). This result may be due to the fact that facilities with higher risk residents are more likely to use trained medical staff to do suicide screening, and suggests that in future analyses we should seek additional data on previously diagnosed mental illness among youth (prior to incarceration) or on the suicide risk level assumed by facilities of their resident cohorts (prior to actual assessments).

Finally, we add to their analyses by finding that facilities with higher overall youth violence rates are more likely to have suicide attempts than other facilities. Interestingly, however, staffing ratio, levels of contraband, and facility location – each of which are significant predictors of a variety of negative outcomes (see above) – are not significant predictors of suicide attempts in any of our models.

Contraband Analysis

We illustrate the results of our preliminary investigation into other (non-drug/alcohol, non-weapon) contraband in Figure 2. Figure 2 compares facilities that do and do not employ four different strategies for discovering contraband, as reported in fall 2007: visitor searches, metal detectors, drug-sniffing dogs, and random resident searches. This figure illustrates that facilities that check for contraband using internal mechanisms – random resident searches and drug-sniffing dogs – have lower other contraband rates than facilities that do not use these mechanisms. In contrast, facilities that use external mechanisms – visitor searches and metal detectors – have higher other contraband rates.

Figure 2. Use of contraband search mechanisms and other contraband incident rates



These results suggest that our measure of other contraband may be partly an artifact of how facilities police residents and facility visitors. Though these data are preliminary and based on a very small sample, they suggest that other contraband rates are at least partially shaped by whether one looks for contraband among guests and/or among residents. We say this because we see no reason why

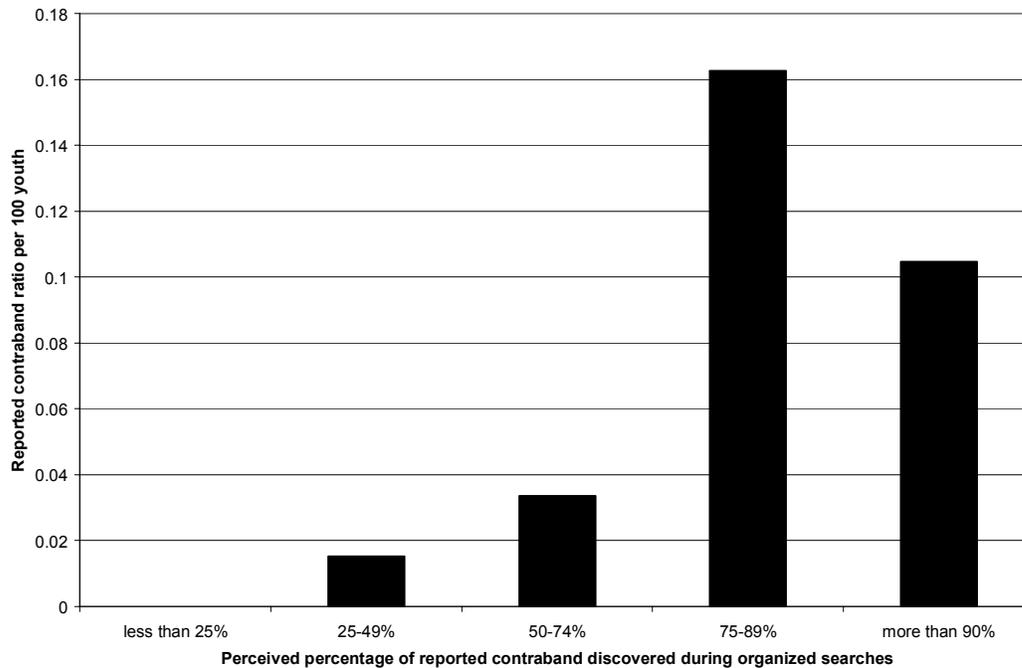




searching visitors and requiring that they pass through metal detectors would raise the actual rate of contraband possessed by facility inmates; rather, such searches would conceivably either lower contraband possession rates (by deterring visitors from importing contraband), or allow facilities to find a larger proportion of existing contraband. However, given that residential facilities are closed facilities in which informal communication among residents often resonates quickly and loudly, it is possible that searches among residents deters the possession of “other” contraband. Thus, the results we discuss above, in which other contraband influences a variety of outcomes, seem to be at least partially due to a surveillance artifact.

We find further support for the influence of a surveillance artifact when we consider the relationship between staff members’ perceptions of the effectiveness of their facilities’ strategies for discovering contraband and the actual amounts of discovered contraband facilities report to PbS. In the supplemental Facility Survey, staff were asked what percentage of discovered contraband is discovered during their facilities’ organized searches. Staff who report that their facilities’ strategies for discovering contraband are effective tend to be from facilities with relatively higher rates of reported contraband (see Figure 3). This suggests that reported contraband is more a measure of surveillance than a measure of security or lack thereof. We will continue to consider this possibility as we collect more data on this issue in future data collection periods.

Figure 3: Reported contraband by percentage of contraband found during organized searches (F=2.63, p=.042)



Summary and Discussion

In the above analyses, we use statistical regression models in an attempt to determine what factors help predict a variety of unwanted outcomes within facilities. This is important, because it allows us to estimate whether the included predictors shape the safety, order, and security outcomes, while statistically holding constant other factors. Our hope is that facilities can use this knowledge to create a climate that minimizes the risk of unwanted events.





The first set of analyses, our OLS regression models, produce a number of results that one would expect based on the prior research (e.g., Miller and Ohlin 1985; Parent et al. 1994). These results are listed in detail above, and included in Appendices 2 through 4. In sum, they suggest that the type of facility (sex, function) matters, that facilities with higher rates of overall youth violence have higher rates of other negative outcomes, that facilities with contraband have higher rates of safety problems, and that facilities using punishments (especially restraints) more often also have higher rates of safety and order problems.

These results can be used for positive intervention in juvenile facilities. For example, by reducing the use of segregation, restraints, confinement and isolation in response to youth misbehavior, facilities may be able to reduce the frequency of injuries to youth and staff, and reduce fear among youth and staff. It is important to note that this observed relationship might be due to the reverse causality. That is, it is possible that facilities with such problems respond by using segregation restraints, confinement and isolation, rather than these punishments causing the observed problems. This would be likely if we found the strongest relationships only for outcomes measuring misbehaviors, such as assaults. Rather, we see this relationship across several models, including ones such as abuse/neglect, for which youth should not receive punishment. This is also unlikely because we statistically control for both the rate of violence among youth and the proportion of youth who are incarcerated for a person offense.

Other results are less directly applicable. Clearly, facilities cannot change their population from female to male, or change from a detention facility to a correctional facility. Yet knowing that these characteristics are associated with increased problems can help facility administrators forecast and thereby prevent particular problems they might otherwise face. Additionally, it makes sense that facilities with high rates of overall youth violence also are more likely to use restraints and isolation/confinement. Yet given that restraint use is only associated with negative outcomes, and that youth violence is also associated with youth injuries due to restraint application, the results suggest that facilities with higher rates of youth violence may want to consider alternative methods for curbing this violence.

The next set of analyses, the multi-level models, build on these results by considering individual youths' experiences rather than aggregate rates of facility outcomes. Here we find that the experiences of individual youth are influenced by individual-level factors far more than by facility-level factors. Whether a youth understands facility rules, perceives the facility staff as helpful, and has ever been locked up contribute much more to the likelihood of being afraid, having something stolen, being abused, or getting in fights than most of the facility-level predictors used in the OLS analyses.

The result of the last of these variables, a youth's experience being locked up, could be interpreted in either of two ways. One, it is possible that facilities that are overly punitive either on certain youth or on their populations as a whole encourage aggressive behavior among their populations; youth may respond to perceived unfairness by misbehaving. Two, it is possible that individual youth who misbehave are also at greater risk of being victimized. We cannot discern which of these two hypotheses is true given these data, though both are plausible and perhaps true to some extent.

The other individual-level variables lend themselves to clearer interpretations and suggestions for practice. These results suggest that facilities may be able to reduce disorder and victimization by clearly communicating rules, and by structuring and encouraging staff to be present to residents.

With regard to our replication and extension of Gallagher and Dobrin's analyses (2005, 2006a, 2006b), our results largely coincide with theirs. That is, we both find that a variety of facility characteristics are associated with the likelihood of suicide attempts (size of youth population, sex of the resident population, large proportions of racial minority youth, and the use of restraints). Yet unlike their results, we find no effect of timing until screening, that there are fewer suicide attempts in facilities that use non-medical





trained staff and other staff to perform suicide screening, and that overcrowding is negatively related to suicide.

This latter result is surprising, as we discuss above. Yet it is consistent with some of our OLS results, in that the proportion of days over residential capacity is associated with lower rates of a variety of negative outcomes (as well as being associated with higher rates of other negative outcomes). One possible explanation for these results is that overcrowding influences the likelihood that negative incidents are observed and recorded by facility staff. That is, staff in overcrowded facilities are likely to be overburdened, and may therefore be less likely than staff in other facilities to properly record negative behaviors. Given that we find some support for the presence of a surveillance artifact with regard to contraband, it is certainly possible that our measure of overcrowding actually captures a facility's surveillance capacity as well. In future analyses, we will look more closely at our measure of overcrowding to better understand this surprising result. In particular, we will consider whether overcrowding leads to high staff turnover, which may influence the results we see. Additionally, since one of our clearest findings is that individual residents' experiences and perceptions (whether they understand facility rules, think the staff are helpful, and have avoided being locked up while incarcerated) matter far more than facility-level characteristics, in future analyses we will explore whether overcrowding shapes resident-staff interactions, which might in turn shape the outcomes we measure.

We are also surprised that the proportion of residents who are incarcerated due to a person offense fails to significantly predict residents' misbehaviors. The addition of this variable, which we obtained from CJRP data, represents an important addition to our previous work. The fact that this variable fails to predict misbehavior suggests that how facilities manage their residents and staff is far more important than the characteristics of the youth who enter the facilities. In other words, our results do not support the contention that facilities who house greater numbers of previously violent youth are handicapped when it comes to maintaining safety, order, and security. Given the importance of this result, we will continue these analyses and, in future work, consider whether individual residents' prior offending histories predict their reported experiences while incarcerated.

Finally, it is important to note four potentially important limitations to the data. One, these data are non-random. Facilities choose to participate in PbS, rather than being randomly sampled from among all facilities nationwide. It is possible that participating facilities differ in important ways from non-participating facilities, which hampers our ability to generalize these results to all juvenile correctional and detention facilities in the U.S. Thus, these analyses indicate the factors associated with safety, order, and security outcomes in participating PbS facilities rather than in the population at large. Two, it is also important to note the relatively small samples we analyze here, particularly with the OLS regression models. As we repeat and extend on these analyses by adding future data collection periods, this problem should be curtailed. Yet currently, our analyses use a smaller than desirable sample. Despite these limitations, we have uncovered a number of potentially important relationships that should be of note to facility administrators. Three, we suggest caution in interpreting the complex relationship between staff-inmate ratio and negative outcomes. Since we have only an aggregate count of direct care staff in a facility, rather than a distinction between teachers, counselors, medical staff, and security staff, we are unable to properly interpret the meaning of this result. Hopefully, this important measure will be improved upon in future data collection instruments. Four, as with any research based on survey methods or on crime statistics, we cannot be certain that our data are equally valid across facilities. It is possible that a portion of the differences in youth misbehavior rates we see across facilities are due to how facilities search for and record misbehavior, rather than to residents' actions. Indeed, our analyses of contraband indicate that, to some extent, measured rates of other contraband are related to how facilities search for contraband. As we discuss above, we are particularly focused on whether such a surveillance artifact is responsible for the surprising results we observe regarding overcrowding and staff-to-youth ratio.





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Appendix 1. Variable List

Dependent Variables:

1. Safety Outcomes

- Abuse or neglect cases per 100 person days of confinement
- Youth injuries per 100 person days of confinement
- Staff injuries per 100 staff days of employment
- Youth injured by other youth per 100 person days of confinement
- Youth injured by staff per 100 person days of confinement
- Suicidal behavior with injury per 100 person days of confinement
- Suicidal behavior without injury per 100 person days of confinement
- Youth injuries by application of restraint per 100 person days of confinement
- Assaults on youth per 100 person days of confinement
- Assaults on staff per 100 person days of confinement
- Proportion of youth who report fear for their safety^{*}
- Proportion of staff who report fear for their safety[#]

2. Order Outcomes

- Incidents of youth misconduct leading to restraint, isolation, or injury per 100 person days of confinement
- Staff involvement in sanctions per 100 staff days of employment
- Use of physical restraints per 100 person days of confinement
- Use of mechanical restraints per 100 person days of confinement
- Use of chair restraints per 100 person days of confinement
- Use of other restraints per 100 person days of confinement
- Use of isolation, room confinement, or segregation per 100 person days of confinement
- Average time spent in isolation, confinement, or segregation
- Proportion of isolation, confinement, or segregation incidents ended within 4 hours
- Proportion of isolation, confinement, or segregation incidents ended within 8 hours
- Average number of idle hours

3. Security Outcomes

- Escapes per 100 person days of confinement
- Attempted escapes per 100 person days of confinement
- Other (non weapons, non drug or alcohol) contraband per 100 person days of confinement
- Lost keys incidents per 100 person days of confinement

Independent Variables:

- Proportion of youth who are assigned to housing based on a classification system[@]
- Proportion of youth who are screened for suicide risk within one hour of presentation for admission[@]
- Proportion of youth who are involved in suicidal behavior that are assessed by mental health staff.
- Proportion of youth who have a behavior management system^{*}
- Proportion of youth who claim to know the facility rules





Public facilities (contrast = private)
Facility location (contrast = urban):
 Rural
 Suburban
Female only facilities (contrast = male only and coed)
Correctional facilities (contrast = detention facilities and assessment centers)
Size of youth population
Proportion of staff who are racial/ethnic minorities
Proportion of youth who are racial/ethnic minorities
Ratio of staff-to-youth
Overall youth violence incidents per 100 person days of confinement (including fights, sexual assaults, assaults on staff, and assaults on youth)
Proportion of youth committed for person offenses⁺
Alcohol or drug contraband incidents per 100 person days of confinement
Weapons contraband incidents per 100 person days of confinement
Other (non weapons, non drug or alcohol) contraband per 100 person days of confinement
Total number of restraint incidents
Total number of isolation incidents
Total number of segregation incidents
Total number of confinement incidents
Proportion of days over residential capacity
Age of facility
Length of participation in PbS data collection

Additional Variables Included in Suicide Analysis:

Proportion of youth screened by various staff (training – contrast=medical staff) @:
 Non-medical trained staff (social worker, “trained staff”)
 Other staff (listed as “other” and “other state qualified” staff)
Hours from admission to suicide screening@
Time until suicide screening, categoric variables (contrast: not screened, or screened more than 7 days after admission) @:
 Proportion screened prior to admission
 Proportion screened within 24 hours of admission
 Proportion screened between 1 and 7 days of admission

*Variables derived from youth climate survey file;
variables derived from staff climate survey file;
@ variables derived from youth record file;
⁺ variable from CJRP data;
all other variables derived from facility file.





Appendix 2. Results of OLS Regression of Safety Outcomes on Expected Practices, Processes, and Covariates (only coefficients significant at p<.05 shown)

	Abuse/ Neglect	Youth injuries	Staff injuries	Yth injuries by youth	Yth injuries by staff	Suicidal behavior - injury	Suicidal behavior - no injury	Prop. of days over capacity	Avg. staffing ratio	Injury by restraint	Assaults on yth	Assaults on staff	Prop. youth afraid	Prop. staff afraid
Processes/Expected Practices														
Classification												0.039	-0.031	
Suicide screening														
Suicide risk seen														
Facility Type and Location														
Public (contrast = private)							-1.708							
Location (contrast = urban)														
Rural	-0.009	0.132		0.044					-0.057		0.111			
Suburban	0.010			0.031		-0.904					0.090	0.024		
Facility population (contrast = all male)														
Female		0.281				2.309			0.138		-0.118		0.078	0.050
Coed		0.090	-0.019					0.113						
Corrections				-0.031	-0.013			-0.086		-0.010	-0.087			
Facility Population Characteristics														
Youth population (*100)			-0.041		-0.008	0.400		0.083	-0.142	-0.009	-0.099	-0.056	0.015	0.026
Prop. of staff - minorities				0.066			0.789	0.169			0.382		0.066	0.106
Prop. of youth - minorities		0.171										0.053		
Staff-to-youth ratio				0.055		-0.702						0.085	0.026	0.032
Staffing ratio squared				-0.015								-0.022		
Staffing ratio cubed														
Prop. of youth - person offenses								0.003	0.001					
Youth Activities														
Overall youth violence rate	0.010				0.026		0.811		0.065	0.027			0.033	
Drug contraband														
Weapon contraband														
Other contraband		0.946				1.706	1.189	-0.141			0.151			
Facility Punishments														
Number of restraints		0.003	0.002		0.001	0.047	0.049		0.001	0.001	0.005	0.003	0.001	0.002
Number of isolation incidents								0.002					0.001	
Number of segregation incidents				0.002									0.000	-0.001
Number of confinement incidents														
Other Facility Characteristics														
Prop. of days over residential capacity		-0.177				-0.839								0.033
Age of facility							-0.008	-0.001	0.001					
Length of participation in PbS														
R-Squared	0.065	0.274	0.164	0.234	0.152	0.350	0.265	0.210	0.140	0.170	0.328	0.422	0.213	0.243
N	707	603	748	690	746	733	691	599	615	692	696	681	658	691





Appendix 3. Results of OLS Regression of Order Outcomes on Expected Practices, Processes, and Covariates (only coefficients significant at $p < .05$ shown)

	Youth Misconduct	Staff Sanctions	Phys. Rest.	Mech. Rest.	Other Rest.	Chair Rest.	Isolation/ Confine- ment	Avg Isolation Time	Punish-ments ended in 4 hours	Punish-ments ended in 8 hours	Avg Idle Hours
Processes/Expected Practices											
Prop. youth who understand rules	-1.649										
Prop youth using level system											
Facility Type and Location											
Public (contrast = private)		-0.206							0.318	0.365	
Location (contrast = urban)											
Rural				-0.076			-1.492		-0.174	-0.182	-0.483
Suburban					-0.011		-1.132	9.493	-0.087	-0.135	
Facility population (contrast = all male)											
Female					0.016						
Coed	0.550	-0.057		0.111	-0.012		1.159	-10.209			
Corrections	-0.584		-0.072	0.107	-0.018			12.199			
Facility Population Characteristics											
Youth population (*100)				0.104		0.007					
Prop. of staff - minorities	-0.923	0.170		-0.410		-0.025	-2.530	21.078	-0.219	-0.221	
Prop. of youth - minorities				0.177			-1.399				
Staff-to-youth ratio	4.553		0.318						0.175	0.118	
Staffing ratio squared	-2.389		-0.068								
Staffing ratio cubed	0.319										
Prop. of youth - person offenses		-0.002		0.003		0.000		-0.307			
Youth Activities											
Overall youth violence rate			0.730	0.308			2.846				
Drug contraband											
Weapon contraband											
Other contraband	1.904			0.206			2.115	-15.896			
Facility Punishments											
Number of restraints											
Number of isolation incidents											
Number of segregation incidents											
Number of confinement incidents											
Other Facility Characteristics											
Prop. of days over residential capacity			0.125		-0.013	0.008			0.133		
Age of facility	0.009					0.000	0.014				
Length of participation in PbS	0.053	0.008				0.001					-0.090
R-squared	0.150	0.093	0.458	0.350	0.067	0.112	0.264	0.143	0.136	0.126	0.079
N	691	562	734	575	691	583	676	477	550	550	676





Appendix 4. Results of OLS Regression of Security Outcomes on Expected Practices, Processes, and Covariates (only coefficients significant at p<.05 shown)

	Escapes		Attempted Escapes		Weapon Contraband		Other Contraband		Lost Keys		Lost Tools	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Facility Type and Location												
Public (contrast = private)												
Location (contrast = rural)												
Rural												
Suburban			-0.009	0.003								
Facility population (contrast = all male)												
Female			0.013	0.005								
Coed											-0.001	0.000
Corrections	0.008	0.002	0.011	0.003	0.004	0.001						
Facility Population Characteristics												
Youth population (*100)			-0.006	0.003			-0.043	0.011	0.001	0.000		
Prop. of staff - minorities			0.011	0.005					0.002	0.001		
Prop. of youth - minorities					0.007	0.002						
Staff-to-youth ratio												
Staffing ratio squared												
Staffing ratio cubed												
Prop. of youth - person offenses (*100)	-0.016	0.005					-0.074	0.033				
Youth Activities												
Overall youth violence rate			0.008	0.003								
Drug contraband			0.106	0.045								
Weapon contraband												
Other contraband									0.003	0.001		
Facility Punishments												
Number of restraints			0.000	0.000								
Number of isolation incidents							0.001	0.000				
Number of segregation incidents			-0.001	0.000			0.003	0.000				
Number of confinement incidents					0.000	0.000	0.000	0.000				
Other Facility Characteristics												
Prop. of days over residential capacity							-0.048	0.018				
Age of facility			0.000	0.000	0.000	0.000					0.000	0.000
Length of participation in PbS												
R-squared	0.041		0.189		0.063		0.149		0.047		0.024	
N	648		580		703		629		696		756	





Appendix 5. Hierarchical Linear Model Regressing Victimization Scale on Facility-Level and Individual-Level Variables

	Estimate	Std. Error	
Intercept	0.24	0.29	
Facility Level Variables			
Number of youth (*100)	0.14	0.08	
Correctional facility (contract=detention)	0.12	0.07	
Public facility (contrast=private)	0.18	0.27	
Facility location (contrast=urban)			
Rural	-0.07	0.06	
Suburban	-0.08	0.06	
Facility population (contrast=male)			
Female	0.05	0.09	
Coed	-0.11	0.06	
Proportion days over capacity	0.06	0.07	
Staff to youth ratio	0.00	0.00	
Restraints	0.00	0.00	
Isolation	0.00	0.00	*
Confinement	0.00	0.00	
Segregation	0.00	0.00	
Facility age	0.00	0.00	
Violent incidents by youth	0.41	0.08	***
Other contraband	-0.19	0.19	
Weapon contraband	-1.28	0.97	
Drug/alcohol contraband	2.64	0.99	**
Person Offense Percent	0.00	0.00	
Individual Level Variables			
Understands facility rules	-0.19	0.05	***
Staff helpfulness scale	-0.12	0.02	***
Rates the school as good	0.02	0.04	
Has been locked up	0.51	0.04	***
-2 Log Likelihood	6615.90		

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





Appendix 6. Logistic Multi-level Models

	Fear		Theft		Physical Abuse		Sexual Abuse		Fights	
	Coeff	SE	Coeff	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Intercept	-1.21	0.33 ***	-2.00	0.38 ***	-1.91	0.37 ***	-3.43	0.59 ***	-2.89	0.38 ***
Facility-Level Variables										
Number of youth (*100)	0.28	0.19	0.13	0.21	0.39	0.24	0.14	0.35	0.46	0.24
Correctional facility (contr.=detention)	0.12	0.19	0.60	0.22 **	0.42	0.22	0.16	0.34	0.30	0.22
Facility location (contrast=urban)										
Rural	-0.14	0.18	-0.49	0.21 *	-0.04	0.21	-0.33	0.33	-0.11	0.22
Suburban	-0.37	0.18 *	-0.20	0.21	-0.37	0.22	-0.35	0.32	-0.01	0.22
Facility population (contrast=all male)										
Female	0.33	0.25	0.01	0.27	0.31	0.29	0.23	0.47	-0.06	0.29
Coed	-0.13	0.18	-0.26	0.21	0.13	0.21	0.22	0.33	-0.62	0.21 **
Proportion days over capacity	-0.20	0.21	0.16	0.24	0.16	0.24	-0.07	0.40	0.24	0.25
Staff to youth ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Restraints	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Isolation	0.01	0.00 *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Confinement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Segregation	0.00	0.00	-0.01	0.00	0.00	0.00	-0.01	0.01	-0.01	0.00
Age of facility	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Overall youth violence rate	0.86	0.21 ***	0.73	0.24 **	0.80	0.27 **	0.73	0.37 *	1.28	0.26 ***
Person offense percent	-0.01	0.00	-0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Contraband	-0.39	0.52	-0.47	0.61	-1.12	0.62	0.06	0.92	0.15	0.62
Individual Level Variables										
Understands facility rules	-0.73	0.14 ***	-0.54	0.15 ***	-0.34	0.14 *	-0.76	0.25 **	-0.04	0.15
Staff helpfulness scale	-0.34	0.07 ***	-0.41	0.07 ***	-0.24	0.06 ***	-0.11	0.14	-0.26	0.06 ***
Rates school as good	-0.07	0.13	0.16	0.15	-0.01	0.13	-0.21	0.23	-0.01	0.13
Ever locked up	0.24	0.12 *	0.53	0.12 ***	0.50	0.11 ***	1.02	0.24 ***	1.85	0.12 ***
Generalized Chi-Square	2421.80		2307.35		2350.35		1806.10		2386.76	





Appendix 7. Logistic Regression of Likelihood of Suicide Attempts

	Model 1: Time to screening categories - limited model		Model 2: Time to screening categories - full model		Model 3: Time to screening (continuous) - limited model		Model 4: Time to screening (continuous) - full model		Model 5: All youth screened - limited model		Model 6: All youth screened - full model	
	Coeff	Exp(B)	Coeff	Exp(B)	Coeff	Exp(B)	Coeff	Exp(B)	Coeff	Exp(B)	Coeff	Exp(B)
Constant	-0.61	0.54	-0.50	0.61	0.09	1.09	0.24	1.27	-1.37	0.25	-1.19	0.30
Public facility	-2.15	0.12 ***	-2.12	0.12 **	-2.21	0.11 **	-2.19	0.11 **	-1.96	0.14 **	-1.88	0.15 **
Detention	0.50	1.65	0.44	1.55	0.52	1.69	0.47	1.61	0.45	1.58	0.44	1.56
Number of youth	0.01	1.01 ***	0.01	1.01 ***	0.01	1.01 ***	0.01	1.01 ***	0.01	1.01 ***	0.01	1.01 ***
Proportion of youth - minorities	0.76	2.14	0.29	1.34	0.91	2.47 *	0.46	1.58	0.60	1.82	0.05	1.05
Proportion days over capacity	-0.75	0.47 *	-0.73	0.48 *	-0.78	0.46 *	-0.77	0.46 *	-0.79	0.45 *	-0.75	0.47 *
Restraints	0.02	1.02 **	0.01	1.01 *	0.02	1.02 **	0.01	1.01 *	0.02	1.02 **	0.01	1.01 *
Isolation	-0.01	0.99 *	-0.01	0.99 *	-0.01	0.99 *	-0.01	0.99 *	-0.01	0.99 *	-0.01	0.99 *
Confinement	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Segregation	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Person offense percent	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Facility population (contrast = all male)												
Female	0.92	2.51 *	1.02	2.78 *	0.88	2.42 *	0.94	2.56 *	0.92	2.51 *	0.97	2.64 *
Coed	0.37	1.45	0.25	1.29	0.36	1.43	0.23	1.26	0.48	1.61	0.27	1.31
Overall youth violence rate			0.47	1.60 *			0.46	1.58 *			0.44	1.55 *
Staff to youth ratio			-0.09	0.92			-0.06	0.94			0.09	1.10
Age of facility			0.00	1.00			0.00	1.00			0.00	1.00
Other contraband			0.60	1.82			0.57	1.76			0.54	1.71
Facility location (contrast = urban)												
Rural			0.05	1.05			0.17	1.19			0.13	1.14
Suburban			-0.04	0.96			-0.05	0.95			-0.04	0.97
Proportion of staff- minorities			0.40	1.49			0.41	1.51			0.58	1.79
Participation in PbS			-0.03	0.97			-0.04	0.96			-0.04	0.96
Suicide screening time:												
Prior to admission	0.48	1.62	0.57	1.77								
Within 24 hours of admission	0.65	1.92	0.73	2.07								
Between 1 and 7 days of admission	3.33	27.95	3.57	35.60								
Time to suicide screening					0.00	1.00	0.00	1.00				
Suicide screener training (contrast=medical staff):												
Trained non-medical staff	-0.97	0.38 **	-0.86	0.42 *	-1.10	0.33 **	-0.97	0.38 **				
Other staff	-0.97	0.38 *	-0.87	0.42	-1.03	0.36 *	-0.87	0.42				
All youth screened									0.53	1.69	0.42	1.52
-2 Log-likelihood	608.15 ***		582.89 ***		593.32 ***		569.00 ***		632.06	***	596.89	***

* p<.05; **p<.01; ***p<.001





Appendix 8. Facility Survey Questions – October 2006

1. Indicate which, if any, of the following programs and activities are available at your facility.

(Select all that apply.)

- a. Criminal thinking
 - b. Substance abuse treatment
 - c. Trauma treatment
 - d. Anger management treatment
 - e. Sex offender treatment
 - f. Life skills classes
 - g. Psychological counseling
 - h. Regular education classes
 - i. Special education
 - j. Personal development classes
 - k. Music classes
 - l. Parenting classes
 - m. Religious services and programs
 - n. Art classes
 - o. Community service
 - p. Large muscle activities
 - q. Mentoring
 - r. Alcoholics Anonymous (AA)
 - s. Evaluation
 - t. Transition planning
2. Please list programs and activities that are available at your facility but are not included in the list above.

3. Do weekend programs and activities typically differ from weekday programs and activities?

(Select one.)

- a. Yes
- b. No





4. If the weekend programs and activities at your facility typically differ from the weekday programs and activities, please describe how they differ?

5. Approximately how often are your facility's schedules of programs and activities adhered to? (Select one.)

- a. Less than 25% of the time
- b. 25% to 49% of the time
- c. 50% to 74% of the time
- d. 75% to 89% of the time
- e. More than 90% of the time

6. Please indicate the extent to which you agree with the following statement: In their current format, Facility Improvement Plans are useful. (Select one.)

- a. Strongly agree
- b. Agree
- c. Neither agree nor disagree
- d. Disagree
- e. Strongly disagree

7. In their current format, Facility Improvement Plans are difficult to maintain. (Select one.)

- a. Strongly agree
- b. Agree
- c. Neither agree nor disagree
- d. Disagree
- e. Strongly disagree

8. In their current format, Facility Improvement Plans are confusing. (Select one.)

- a. Strongly agree
- b. Agree
- c. Neither agree nor disagree
- d. Disagree
- e. Strongly disagree

9. Indicate which, if any, of the following proposed changes would improve Facility Improvement Plans. (Select all that apply.)

- a. Allowing users to select "Targeted Outcome Measures" before they specify "Action Steps"





- b. Linking "Progress Notes" to "Action Steps" such that every action step had its own progress notes
 - c. Placing the "FIP Status" at the beginning of the Facility Improvement Plan
10. If you have any other suggestions for how the Facility Improvement Plan could be improved, please list them here.

11. What procedures are in place in your facility for discovering or preventing contraband? (Select all that apply.)
- a. Random living area searches
 - b. Random physical searches of residents
 - c. Physical searches of visitors
 - d. Drug sniffing dogs
 - e. Metal detectors for visitors
12. Approximately what percentage of the discovered contraband is discovered during organized searches? (Select one.)
- a. Less than 25% of the discovered contraband
 - b. 25% to 49% of the discovered contraband
 - c. 50% to 74% of the discovered contraband
 - d. 75% to 89% of the discovered contraband
 - e. More than 90% of the discovered contraband
13. Approximately how often does your facility conduct organized, random living areas searches? (Select one.)
- a. Once a week
 - b. Twice a month
 - c. Once a month
 - d. Less than once a month
14. Does every incident of discovered contraband generate an incident report? (Select one.)
- a. Yes
 - b. No





15. If “No,” how else is discovered contraband documented?

16. Besides drugs, alcohol and weapons, what constitutes “contraband” at your facility?

