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Critique of Maryland's Population Forecast: No Call for a New Youth Detention Facility

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Introduction

NCCD, one of the nation's oldest and most respected criminal justice research organizations, has reviewed the bed space needs forecast reported in Maryland's Department of Public Safety and Correctional Services (DPS) *Project Program for New Youth Detention Center* (Revised December, 2007) and found serious methodological flaws that put into question the accuracy of its projections. A forecast based on a sound method would almost certainly produce substantially different estimates of future bed space needs for youth transferred to the adult system in Baltimore.

DPS projected that a new youth detention center would require at least 180 cells for youth who are awaiting trial in the adult criminal justice system. The new facility design creates a capacity of 230 youth.

After a brief summary of findings, this NCCD report describes shortcomings of the DPS forecast in the light of best practices in the field.

Summary of Findings

Non-current data. The forecast was made in 2007 and therefore does not account for changes in the past three years. The DPS forecast assumes rises in key factors which actually have been dropping in recent years, such as Baltimore's youth population and youth arrests.

Inappropriate aggregate analysis. The DPS forecast attempts to estimate bed space needs in two facilities—one for youth, one for women—using a single forecast. Youth and women differ in many ways relevant to the system and therefore should be analyzed separately.

Incorrect population data. The DPS projection uses aggregate population data, including youth of all ages and adults. Instead, the forecast should be based only on the segment of the Baltimore population eligible for the proposed youth facility.

Incorrect arrest data. The DPS forecast uses a single level of analysis based on arrests for all ages, including adults. The forecast should be based on system data only for the types of offenders the facility will serve.

Apparent lack of an independent researcher. The DPS report does not indicate who conducted the forecast; no outside consultant is mentioned. Research and analysis by independent researchers provides the best assurance possible that no unintentional bias impacts the process.

No consideration of alternatives. The DPS forecast does not consider changes in policy and practice that would most likely reduce commitments and length of stay such as: risk assessment and standardized decision making in detention decisions; court processing reforms; diversion for substance abusers and mentally ill youth; and increased use of alternatives such as community supervision, house arrest, and electronic/GPS monitoring.

NCCD concludes that the DPS forecast cannot be relied upon to accurately estimate future facility needs in Baltimore. Perhaps the strongest indication that the 2007 DPS forecast is unreliable is that recent population trends in the current facility—that is, the number of youth being held at the Baltimore City Detention Center—show a strong decline. **While DPS projected a need for 178 beds by 2010, as of May of this year there were just 92 youth held in the current facility, just over 50% of the DPS forecast.**[1] We strongly recommend that DPS conduct a new forecast using current, youth-specific data, and more reliable methodology.

Detailed Findings

Basics of Forecast Methodology

The basic form of corrections forecasting uses historical trends to estimate the number of inmates who will come through the system in the future. The key data trends it considers are rates of arrest, the percent of arrested persons who are subsequently committed, and their average length of stay in custody. Rates of arrest and commitment are calculated using general population statistics, making population trends another key element of forecasting. Additionally, forecasts typically include an allowance of extra bed space to account for normal short-term surges in bed space needs.

Forecasting is not just a mathematical exercise. Subjective decisions are made throughout the process. This makes it essential that a broad group of stakeholders has input and that all data, calculations, decisions, findings, and implications are fully reported and made available for public response.

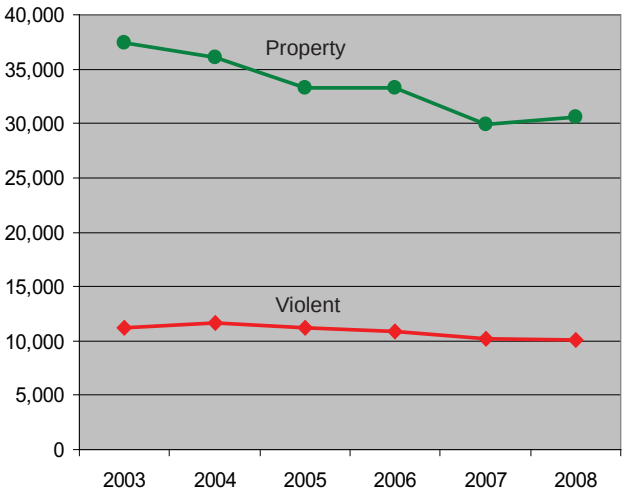
Non-Current Data

It is vital that forecasts are based on the most current data available. Three years have passed since DPS made its calculations. At the very least, they should be updated with information that is now available for the interim, which shows current downward trends in certain key projection variables such as Baltimore's youth population and arrests.

Current political, economic, and social issues and attitudes should be considered as well, such as the US economic situation or changing public attitudes towards responses to crime and the treatment of youth as adults. Further, the DPS report cites rising rates of crime as a possible cause for increased arrests. In fact, the FBI Uniform Crime Reporting program shows both violent and property crimes reported to the police have dropped since the early 2000s.

1 Maryland Department of Public Safety and Correctional Services, 2010.

Figure 1
Reported Crime Rates in Baltimore City
2003-2008



Inappropriate Aggregate Analysis

DPS attempts to use a single forecast to estimate future bed space needs for two distinct facilities housing two different populations (youth and adult women). As a result, there is little likelihood that the DPS forecast will reliably predict the bed space needs of either of the two groups. Youth and women differ in many relevant ways, including offense type and severity, offense histories, case processing characteristics, and length of stay, and therefore need to be analyzed separately.

DPS does use youth-specific data at a late stage of their calculations, but not at the first, most important stage; crucial factors in the forecast (i.e., trends in population, arrest, commitments, and length of stay) were determined without distinguishing youth from adults. DPS presumably had access to youth-specific (and adult female-specific) data; it is not clear why they did not pursue two separate forecasts. The two facilities are planned for the same campus and would share some elements, however, two different facilities designed to serve two different population groups require two different forecasts.

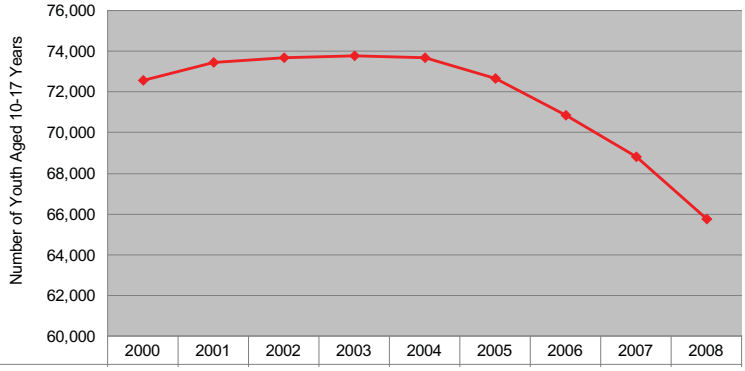
Incorrect Population Data

DPS did not target youth population data. Along with arrest and commitment rates and length of stay, civilian population trends are crucial drivers of changes in the number of inmates held in correctional facilities. Instead of all adults and all children as used by DPS, a reliable forecast method would use only the segment of the Baltimore population eligible for the proposed jail facility. This segment is most closely represented by 10-17 year olds.[2] The DPS decision to use the entire Baltimore population distorts the calculations of youth arrest and commitment rates upon which the projections rely.

DPS assumed a population increase in Baltimore. Despite data showing a consistent trend of population decreases, DPS forecasted that the population would rise 3% over the course of the forecast period. The actual youth-specific population trend is graphed in Figure 2. It shows that the youth population has declined steadily since 2004. The youth-specific data show a 10% drop in the last 5 years, a strong and sustained rate of decline that runs counter to the estimates of growth assumed in the DPS forecast.

An updated forecast could incorporate youth-specific population projections based on the 2010 US Census. These would provide the most up-to-date and accurate basis for a projection.

Figure 2
Baltimore Youth Population, 1999-2008



2 The US Department of Justice Office of Juvenile Justice and Delinquency Prevention uses the 10-17 age group in its data analysis.

Incorrect Arrest Data

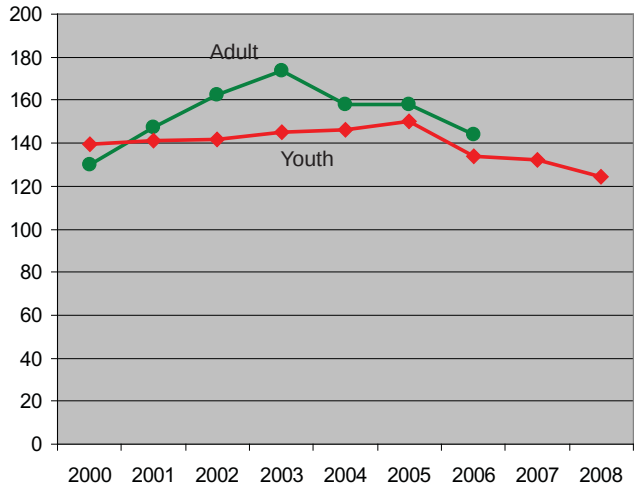
DPS combined adult and juvenile arrest data. The forecast should track arrest and commitment trends only for the types of offenders the new youth facility would serve, that is, youth ages 10 to 17. The DPS forecast, however, uses not only all ages for youth, they use arrest data for all adults and youth together.

Figure 3 shows two types of data: the all-ages arrest data used in the DPS analysis and the youth aged 10-17 arrest data that NCCD would recommend using as a starting point for this forecast. The difference in the trends is evident: the youth arrest rate has less fluctuation (allowing for more reliable forecasting) and is consistently lower (youth enter the system at a lower rate than adults). Further, the 2007 and 2008 data not available in the DPS forecast show a consistent downward trend.[3]

The DPS forecast used a 5-year average arrest rate of 159. If they had used only the youth arrest rate, the 5-year average for the same time period would be 143. Further, using the most recent data (including 2007 and 2008), the 5-year average would be 137, 14% below 159.

DPS does not subdivide youth into statistically relevant subgroups. The DPS forecast assumes youth offenders (indeed, all offenders) are a homogeneous group. In fact, certain characteristics—age, gender, race/ethnicity, current offense, offense history, and assessed risks and needs—are likely to lead to differences in a variety of system outcomes, including arrest and commitment patterns, appearances in court, discipline issues while in custody, service needs and success, lengths of stay, revocations, and recidivism. Other youth or system characteristics may also need to be considered; these should be chosen based on the input of city officials and stakeholders. Subgroup analysis is a common method used to increase the accuracy and usefulness of forecasts.

Figure 3
Baltimore Arrest Rates per 100,000
2000-2008



Unusually High Allowances for Jail Population Fluctuations

To account for normal fluctuations in prison population and bed space needs, forecasters may increase their projected average bed space needs by a certain percentage based on what are called peak and classification factors. This was the last step of the DPS forecast.

The peak factor addresses short-term surges in population which, in jail facilities, typically occur on weekends, at the end of the month, and in summertime. It is usually calculated by averaging the difference between the annual average daily population and the highest single day populations each month. NCCD cannot assess the accuracy of the DPS estimates of the peak factor because the data used are not provided, but the 1.07 (7% over the average daily population) factor seems reasonable.

The classification factor addresses the need for a facility to always have a certain number of beds available for inmate movement within the facility due to certain

3 Source: OJJDP at http://ojjdp.ncjrs.gov/ojstatbb/ezaucr/. 2008 data is from Maryland State Police Uniform Crime Report at http://www.mdsp.org/downloads/2008_Crime_In_Maryland.pdf

routine administrative, legal, health, or disciplinary issues. For instance, the Baltimore City Detention Center may occasionally have to temporarily move inmates or leave living spaces unfilled in order to fulfill the legally required separation of youth from adult inmates.

The classification factor DPS establishes is 1.40 (40%), substantially higher than those typically found in jail facility forecasts. While some rationale is offered, the particular data used to establish the DPS classification factor are not made available in the report. The lack of clear explanation for its methods and the lack of supporting data makes it difficult to assess the merit of the combined 1.47 peak/classification factor.[4] However, a more typical jail peak/classification factor would be approximately 1.20 (20%).

Available Data Suggest the DPS Forecast Is Inaccurate

NCCD recommends DPS conduct a new forecast with more appropriate methods and current data. Most of the necessary data were not available for this report, but trends in population and arrest data that are available as well as other indicators suggest that a new forecast would produce substantially lower estimates of bed space needs.

Commitment and length of stay data were not available to NCCD for this report but is presumably available to DPS. The rate at which arrested youth are committed and their length of stay are in large part functions of policy and court processing issues. Those can be influenced through the application of some of the alternatives discussed below—adoption of which would reduce bed space needs still further, if not completely remove the need for a new jail facility for youth charged as adults.

As reported above, the DPS report uses predictions of an average daily population (ADP) of 178 by 2010 and 180 by 2020 to justify construction of a new 180-bed youth facility. **As of May, 2010 just 92 youth were held there.[5] Had the new facility already been built, it would be standing nearly half empty.**

Qualitative Issues

The DPS forecast seems to lack an independent researcher. No outside agency or private consultant is mentioned in the report as having conducted the forecast. It is important that the agency who would administer the facility not conduct the forecast. The forecaster must make many subjective decisions, such as which years of data to consider, what assumptions will underlie the analysis, which external or secondary influences to factor into the model, which elements of the local juvenile system are likely to remain static and which may or can be altered, and how committed stakeholders are to reducing youth involvement in the system. Research and analysis by independent researchers provides the best assurance possible that no unintentional bias impacts the process.

The DPS report and process lacks transparency. A crucial step in a transparent and defendable forecast is thorough reporting of the method followed, the data used, how issues were addressed, and potential shortcomings of the findings. DPS again falls short here. For instance, DPS should have explicitly described how it came to the conclusion that "The future average length of stay will most likely increase for the forecast period, but will not reach the length of stay average that was experienced for the entire sixteen-year period." Length of stay is one of the key drivers of ADP, so calculations based on assumptions about future length of stay trends need to be clearly described and supported. As reported above, the data used to determine the DPS peak and classification factors are not tabulated in the report. Such reporting is essential

4 The DPS report indicates the high classification factor was based on specialized housing needs in the current facility and acknowledges that this issue would be solved in the planned new facility. However, rather than reducing the classification factor, the report goes on to explain that a new Special Education program will require a similar amount of extra space. By this argument the high 1.4 factor is used in the calculations. On this point, NCCD believes that a well-planned facility can account for programmatic needs (like the Special Education program) and not have to rely on such a high classification factor.

5 Maryland Department of Public Safety and Correctional Services, 2010.

to justify decisions and conclusions and to allow for independent assessments.

The DPS report offers only a single forecast. It is common for bed space need forecasts to offer several alternative projections based on various populations and scenarios. Understanding how subgroups have different impacts on the bottom line of bed space needs would greatly increase the forecast's usefulness as a tool to influence reforms of system policies and practices. It could, for example, give stakeholders the ability to target segments of the youth population especially at risk for system involvement with appropriate prevention and intervention programming. It could identify policies and practices that, if modified, could reduce overall system involvement and thus bed space needs.

The community should be invited to respond. The input of all relevant stakeholders is an essential aspect of planning and reviewing a bed space forecast. Without this input, the forecast may fail to consider relevant factors, and key impacts of the forecast may not be thoroughly understood and considered.

For instance, the public should understand the long-term financial consequences of basing decisions on a bed space forecast. Once a jail facility is built, outfitted, and staffed, the ongoing costs of maintaining and staffing the facility are typically fairly static regardless of how many youth are held there. That is, a reduction by half of the inmate population in a facility does not reduce by half the costs of maintaining that facility. Stakeholders need to understand what options they have for reducing the risk that a new facility becomes an underused burden on taxpayers.

The DPS report appropriately lists the assumptions that underlie the forecast. None of the assumptions, however, suggest policies or practices that are or could be put in place to reduce arrests, commitments, or length of stay. This suggests a limited consideration of the full range of options that may influence future facility needs. A properly executed forecast opens discussion of not only the often arcane statistics of criminal justice researchers but of how the theories, attitudes, policies, and practices of public systems impact the community and, in this case, its vulnerable youth. With appropriate community participation in a thorough and informative forecast, bed space needs and taxpayer costs can be reduced while also improving the system in a way the public will support.

Stakeholders, including the public, may want city officials to consider best practices that have decreased offending and rates of detention in other communities at less cost and no loss in public safety.

Alternatives to Consider

Other communities have successfully changed policy and practice to reduce bed space needs and simultaneously improve the efficiency, fairness, and quality of processing youth in the system. Not all reforms are necessary or practical in every jurisdiction. NCCD has reviewed official reports and available data and consulted with local experts to determine which are likely to be successful in Baltimore. These reforms build on one another and fall into two main categories as follows:

Reduce Transfers to Adult Court

- Make greater use of system data to track who is being held where, why, and for how long. This will help insure that an ongoing self-evaluation is possible.
- Implement risk assessment and standardized decision making in detention and placement decisions. For example, Lane County, Oregon, is using a Public Safety Risk Assessment Tool that helps determine risk to public safety, risk of recidivism, and risk of failing to appear in court.

- Do not hold youth in the adult jail facility if they are likely to be returned to the juvenile justice system anyway. Use transfer to adult jail as the last resort, not the first option. Currently, approximately 62% of youth detained in adult jails are eventually returned to the juvenile justice system[6]—a wasteful practice that harms youth unnecessarily.
- Reduce custody for pretrial, post-conviction pre-placement, and special populations (probation violators, failures to appear, warrants) primarily through court processing reforms. Use methods other than bail to ensure that people appear in court. For example, Brevard County, Florida, allows low-risk defendants awaiting trial to be supervised in the community, allowing them to maintain jobs and family responsibilities. The county considers this a cost-effective alternative to incarceration that helps to ensure that the offender will appear in court. Community and family ties have proven to be stabilizing and motivating factors.
- Reduce case processing time to reduce the length of stay in detention.

Use the Juvenile Justice System More Wisely

- As for youth waived to the adult system, use system data to identify and improve stages of the system which unnecessarily increase juvenile detention counts and length of stay, such as court processing times, failures to appear, and technical violations.
- Divert substance abusers and mentally ill to public health services in the community. For example, Hanover County, Pennsylvania, has a Community Corrections program that supervises offenders placed by the courts and that offers a wide variety of services. It offers similar services in its Pretrial Services program in addition to electronic monitoring—allowing offenders to maintain community ties while making amends for their offenses. Also, the Virginia Department of Criminal Justice Services has implemented such programs statewide for offenders at risk of failing to appear or of committing a new offense.
- For low-level offense youth who are charged as juveniles and who need to be supervised prior to their court dates, increase the availability and utilization of evidence-based alternatives such as community supervision, house arrest, or electronic monitoring.
- Use the above approaches to create more space in existing juvenile facilities (Baltimore City Juvenile Justice Center and Thomas J.S. Waxter Center) for youth who would otherwise be detained in the adult jail.

Conclusion

Based on our review of their methods and of the situation in Maryland, NCCD concludes that there are serious questions about the accuracy of the DPS forecast. It lacks the methodological rigor to reliably forecast bed space needs for youth transferred to the adult system in Baltimore.

The forecast also lacks consideration of evidence-based and politically-practical options likely to reduce the number of transfer youth (and juvenile justice youth) in secure custody. A full state-ordered review of such options and a new forecast accounting for them would likely substantially reduce, if not eliminate, the need to build a new facility.

6 Just Kids (2010). Baltimore, MD. See http://www.publicjustice.org/our-work/index.cfm?pageid=86.