



Today's Forecast: Trouble Ahead

Most mornings, the warden logs onto his computer system and is greeted by an array of dials somewhat like an automobile dashboard, all lit in green to indicate "situation normal." This morning, however, one of his gauges glares a red warning. Clicking on that dial, he can quickly move down through layers of data to find out more details on a possible trouble situation, and plan changes to prevent it.

In the past, most correctional administrators had to spend a great deal of time wading through a variety of paper reports, cross-checking and analyzing data in their heads, trying to identify the warning signs that operational problems may be imminent. As the computer age takes an ever-firmer hold on U.S. society, correctional systems have joined in, looking for ways to automate and make this process simpler. The Florida Department of Corrections, through an award from the Office of Justice Programs' National Institute of Justice, is developing the Correctional Operations Trend Analysis System (COTAS), an automated way of predicting inmate disruption and helping administrators find ways to minimize it.

Once COTAS is operational, sometime in 2009, Florida plans to share the concept, the codes, and the processes it used to develop COTAS with other correctional facilities. Other systems can then adapt COTAS to their own methods of gathering data and technology requirements.

"The potential that COTAS offers to correctional administrators at the institutional, regional, and State levels is tremendous," says James Upchurch, Chief of the Florida Bureau of Security Operations. "There are other States that have systems in place where they automate data and information to managers in a user-friendly form, but the primary difference with COTAS is its predictor capability that allows managers to do something ahead of time."

The Florida Department of Corrections, the third largest State correctional system in the Nation, presently houses 96,000 inmates and has more than 150,000 offenders on community supervision. The system comprises 135 facilities, 60 of them major, and employs 25,000 individuals,

including 17,000 uniformed officers and supervisors. Obviously, a system of that size generates a staggering amount of data; in addition, Florida maintains records back to the 1970s.

That's the point from which the research and data analysis team, headed by David Ensley, Dena French, and Kristine Dougherty, began. They worked through a lengthy analysis process that resulted in the identification of the major predictive indicators now programmed into COTAS. (Indicator examples include drug-testing percentages from the random-drug testing program, inmates' mental health history, and housing classification scores.) The team conducted statistical analyses of years of data on violent and nonviolent disruptive events at the individual and facility level.

The information technology team, headed by Tommy Tucker and Frank Wood, took these predictors and created a user-friendly interface (now in the beta testing phase) with dashboard/ gauge presentation of critical elements and the capability to drill down through additional layers of data detail. The gauges compare the situation in any given institution to other similar facilities throughout the State. The development process also included automating a daily feed of data into the COTAS system.

Beta testing began on a small scale in April and will slowly expand during the remainder of 2008, with users providing feedback for modifications to be implemented before final rollout next year.

"We wanted to create a user-friendly system that would eliminate the need to spend hours of time reviewing mountains of reports, and make a way to monitor the 'health' of the various institutions accessible from the warden level to the secretary level," Upchurch says. "We hope this will take us from being reactive to being more proactive."

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