

# Computerizing Your Statistics for Better Jail Management

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Have you ever called another jail looking for specific data, only to be told you will need to call back at a later date or time because the person who knows how to access the data is off duty or unavailable? Have you tried to make the same type of call within your own agency and gotten the same result? Have you had anyone leave your agency and later found out all their data went with them?

We in Boulder County, Colorado, have experienced all of these scenarios. Our solution is multifaceted, and we call it COMSTAT—Computerized Statistics. Our method provides an easy and cost-effective solution for getting all of your jail's statistical data in one, easy-to-access location.

Computerized statistic gathering is not a new subject. The model we tweaked was a concept presented through the New York City Transit Police in 1994, called "CompStat." Their concept charted crime through stick pins on a map, predicting high future crime areas. One year after its implementation, CompStat had helped reduce crime by 60%. The CompStat program morphed into a monthly summary of statistics that both aided in staffing alignment across New York City's boroughs and held the borough supervisors more accountable to their districts. Ultimately, crime went down after staffing was adjusted to correct unsafe staffing levels within the city's higher-crime areas.

New York City found that CompStat improved the flow of information between executive level staff and mid-line managers. It made everyone aware of current trends and aided in predicting future trends. It provided hard data for problems which were once addressed through anecdotal discussion and excuses. CompStat provided accountability within the organization.

## **What problem were we trying to resolve?**

A few years ago, jail managers in Boulder County took a step back and reviewed our issues surrounding data collection and access to our operational information. When requesting information from staff, we would get similar information from several staff members. Some of this requested data would be reported in a more concise format than others, and some reports would contain more data than others. Often, we would have to wait for someone to return from their weekend or vacation to get information of which they were the sole collectors. We had to know whom to call to get certain data; it was helpful to know where they kept it and how to access it. If you didn't know these answers and you got that unexpected phone call from the Sheriff, a reporter, or another agency requesting the data, it could be embarrassing not to have it at your fingertips.

We needed to decide what statistical data was important and relevant and who it was intended for. We started by gathering all the reports that everyone was responsible for generating.

What we found was:

- Similar data was being collected by numerous staff members. Some of the data was identical from staff member to staff member, while in other cases, different staff members were maintaining different variations of it.
- Data was all over the place. Some data was kept in a file cabinet, some was stored on staff members' hard drives, some was within the agency's shared computer drives, and some was even in old-fashioned, pen-and-paper documents stashed in desk drawers.
- Different reports were being generated daily, weekly, bi-weekly, or monthly.

No wonder we couldn't find what we needed when we needed it. In today's world of correctional management, it's nearly impossible to have all of this knowledge stored within your own head.

#### **How did we approach the development of the data gathering system?**

Once we gathered all reports and what we thought at the time was all the data, we decided to create one central repository. We wanted one place for all the data to be stored, and we decided to use the software program Microsoft® Excel to track this data. We found 99% of our data was numerical or table-driven, and what better, more cost-effective program is there than Excel? Understanding we were going to input everything into Excel, we had to devise a plan to do this.

Within the Excel program, when you create a new report, it's referred to as a "workbook." Each workbook can have numerous "worksheets" within it. These worksheets are accessed via the tabs at the bottom of the screen, which are labeled Sheet 1, Sheet 2, and Sheet 3 by default when you open a new Excel document.

We assigned a point person to create our data management "workbook" within Excel. This point person reviewed all the reports to determine if there were commonalities within them, in terms of their data, formats, frequency, and other factors. Next, they developed a standard format for the worksheet reports within the main Excel workbook. These reports, generated by multiple staff members, were generated daily, weekly, bi-weekly and monthly. Many of the reports already were formatted with rows and columns of information, and some even contained graphs and trend lines. Some of the canned reports from our jail management system (JMS) included graphs and analysis as well. We were also utilizing Crystal Reports to generate and glean additional information from our JMS. These reports were easily converted to Excel.

To pull it all together, we contacted our Information Technology Department and requested a shared drive on our network. This would establish one point of entry and backup of the data, which in our department occurs daily. For the non-computer-speak reader, this means you can view the information any time, from anywhere, as long as you have access to the shared location. Having the automatic backup feature gives some peace of mind that if the system crashes, we only lose the data added since the last backup.

In the shared drive set-up, the agency has the ability to restrict who can access the program. Excel lets us “lock” each worksheet to govern different users’ read/write privileges within the workbook.

- “Read only” access prevents staff from accidentally manipulating or deleting the data, because they can only view it, not edit it.
- “Read/write” access allows authorized staff to enter data into the report.
- The agency can even block some staff from viewing the report, as needed, by denying them “Read” access.

Maybe in your department you only want a handful of staff to have access to the report. You could create security settings that define who has access to the data from the Sheriff all the way down to the clerical staff who may generate reports for your agency.

### **Now that you have the plan—how do you set it up?**

The first step in setting up a data reporting system is to make sure your point person has some knowledge of Excel. Our point person had a basic understanding of how to create a worksheet by adding rows and columns of data, as well as basic knowledge of how to create formulas.

Then you are ready to dig into development. Boulder County started off by creating a report of the simplest form of data collected—our daily population counts. From this report we were able to generate additional reports showing average daily/monthly/yearly population and intakes and releases for each shift. Our jail management system (JMS) also generates some reports that are included in the workbook, and we use Crystal Reports to create other demographical reports using JMS data.

We continued to build or add reports to the workbook. The first set of additions included staff training data, professional and nonprofessional visitation information, incoming and outgoing mail data, and court transport and warrant pick-up data. This led to tracking information within our Programs Division, such as disciplinary hearing results, grievances, educational and other program participation, and recreational attendance. Our jail also has an Alternative Sentencing program that provides monthly statistical information to our judicial system. We took our four programs—Work Release, Home Detention, Day Reporting, and Work Enders (inmates who report to the jail on their days off or weekends and work on outside work crews)—and incorporated all of their reports into our COMSTAT program as well. We also added a report to track facility maintenance rounds and repair status.

### **How did we create a high-level view of the data?**

At this point a dashboard will become useful. Once we started adding all of these reports to our workbook, we decided to dedicate the first worksheet as the summation page for specific data from each of the reports. We call this page our COMSTATS. Essentially, it creates a high-level snapshot of information from each report and reflects specific data so the viewer doesn’t have to review each entire report to find the most important indicators. If a jail manager sees a figure that may be out of the norm, he or she can go to the report containing all of the data to review and determine the reason(s) behind the scenes.

Figures 1 and 2 give an example from our Average Daily Population report. Figure 1 shows a portion of the report that tracks the daily logs of our male and female populations. Figure 2 shows a portion of the summation page, which tracks only the pertinent information we decided to include in our snapshot view.

**Figure 1. View of Average Daily Population Worksheet Page**

Fig 1

	JANUARY			FEBRUARY			MARCH			APRIL						
	DAILY POP	WOMEN	MEN	DAILY POP	WOMEN	MEN	DAILY POP	WOMEN	MEN	DAILY POP	WOMEN	MEN				
12	447	52	395	450	71	379	447	61	386	424	49	375	12			
13	447	54	393	449	71	378	429	60	369	419	45	374	13			
14	446	55	391	427	68	359	424	58	366	428	47	381	14			
15	455	58	397	423	69	354	426	59	367	436	49	389	15			
16	465	58	407	434	72	362	431	60	371	446	51	395	16			
17	464	60	404	433	70	363	429	60	370	428	50	378	17			
18	458	58	400	430	68	362	441	60	381	430	49	391	18			
19	452	57	395	443	72	371	445	62	383	427	44	383	19			
20	439	55	384	452	71	381	426	65	371	420	48	380	20			
21	453	58	395	449	73	376	457	55	382	430	54	376	21			
22	459	59	400	435	72	363	430	57	373	437	54	383	22			
23	459	57	402	434	73	361	428	56	372	433	41	392	23			
24	439	55	384	450	73	377	423	54	369	427	43	384	24			
25	448	59	389	446	74	374	434	57	377	436	47	391	25			
26	443	57	386	447	75	372	441	59	382	435	49	386	26			
27	445	61	385	448	76	372	425	62	373	431	51	380	27			
28	450	66	384	435	71	364	433	49	384	427	53	374	28			
29	453	65	388	431	72	359	429	47	382	440	54	386	29			
30	457	68	389				434	51	383	440	47	393	30			
31	458	65	393				434	59	375				31			
<b>TOTAL</b>	<b>13782</b>	<b>1719</b>	<b>12033</b>	<b>12856</b>	<b>1980</b>	<b>10876</b>	<b>13502</b>	<b>1866</b>	<b>11636</b>	<b>12953</b>	<b>1609</b>	<b>11444</b>	<b>TOT</b>			
<b>AVG DAILY POP</b>	<b>443.61</b>	<b>55.45</b>	<b>388.16</b>	<b>443.31</b>	<b>68.28</b>	<b>375.03</b>	<b>435.55</b>	<b>60.19</b>	<b>375.35</b>	<b>431.77</b>	<b>50.30</b>	<b>381.47</b>	<b>AVG D. POP</b>			
Admis.	767			Admis.	776			Admis.	839			Admis.	725			Adm
AVG Length of Stay	18			AVG Length of Stay	17			AVG Length of Stay	16			AVG Length of Stay	18			AVG Ln. St.
Total Bed Days	13,752			Total Bed Days	12,856			Total Bed Days	13,502			Total Bed Days	12,953			Total Bed Days

**Figure 2. View of Population Indicators on Summation Page**

Fig 2

Area/Unit	Jan	Feb	Mar	Apr
<b>Administration</b>				
<b>Jail Pop Avg</b>				
Male Avg Daily Pop	388	375	375	381
Womens Avg Daily Pop	55	68	47	54
Avg Daily Jail Pop	444	443	434	440
Avg Length of Stay	18	17	16	18

To create a summation page, you will need to create formulas to pull the data from the various reports to the summation page. This is a very simple process—it's a cut and paste link option. In the above example, we are only pulling the Male and Female ADP, combined Average Daily Population, and combined Average Length of Stay.

Reviewing Figure 2, you will notice that just by collecting these four data points on the COMSTATS dashboard, we can easily see a pretty big spike in our female population for the month of February. We can now go back to the Jail Population report and examine the month of February more closely and monitor the trend. Without the COMSTATS summary report, we might not have noticed this spike as quickly or as easily. A jail manager who reviews this data daily or weekly can stay on top of population trends and look for solutions before the numbers get out of control. In this example, you may have to look at boarding options for your women inmates if your facility doesn't have the room to house the additional female population growth.

### **How do you maintain all this data?**

Your point person should be made responsible for the general upkeep and wellbeing of the workbook. They should be responsible for helping staff members create or add new reports. They would help fix formulas if and when they are accidentally deleted or modified incorrectly. If data needs to be tweaked or if additional reports need to be added to the workbook, the point person would be consulted to keep the changes consistent with the "big picture" of the overall program. If you get too many people maintaining the workbook, you will inevitably create some management/maintenance issues.

However, your point person should not be responsible for inputting the information into the individual worksheets. Each individual who was initially responsible for gathering the original data is still responsible for entering their data into the new workbook.

Another point in maintaining the data is putting the onus on the original data collectors to share their reports. As you put these worksheets together you will find some of the staff are going to be very protective of the "their" information. Some take great pride in producing this information, and it becomes very personal to them. Allow them to continue their ownership of the information by making them responsible for their own data entry. This is where, as I described earlier, you can define the read/write options when creating the security profiles of the program and who can access it.

### **Evolving with COMSTAT**

We began compiling our COMSTATS in 2008 utilizing data gathered in 2007. We initially had about 15 reports to begin tracking with. By the end of 2008 we added an additional 10 reports. The growth occurred as we found new information we weren't tracking. Once we started sharing this information with the courts, probation, and other correctional entities, we began to get further inquiries into tracking data we either hadn't thought of or hadn't thought was important to track. Each year since COMSTAT's inception, we have added several reports and deleted some, as well, due to finding more efficient ways of tracking and or combining information.

Before we implemented COMSTAT, our agency had a culture of reviewing data through anecdotal recall. Assumptions were made as to why trends were occurring the way they were and why outcomes were happening the way they were. Jail managers were making some decisions based on this way of thinking. They say that you can make statistics say whatever you want; however, in our line of work we do have some very concrete statistics that cannot be manipulated. Regular review of our tracking data has allowed the Boulder County Jail to make better decisions, to be more efficient in our day-to-day operations, and to be better prepared for future planning.

### **COMSTAT and Budgeting**

After the first year of implementing COMSTAT, we started looking at other aspects of our Division, including our overtime expenditures. Like most sheriffs' departments, we were finding overtime to be an issue. Whether you break overtime down between shift coverage, hospital duty, courts and transports, or any other component you may have in your agency, we all have too much of it.

In evaluating our personnel budget, we started looking at the overtime costs by teams. We currently run our jail in four, 12-hour shifts. We must maintain a minimum of 15 positions on each shift. We also have a 12-man transport team. Like most counties, we have a pretty flat budget, so we do not have the option to gain additional staff very easily. Through monthly reviews, by tracking our overtime and mapping it to each of the five work groups, we were able to reduce our overtime spending by 85% over a 5-year period. And in so doing, we were able to point out exactly where our overtime costs were coming from. This has allowed us to have a dialogue with our county commissioners and to request additional staff through hard data and not anecdotal excuses.

Boulder County also developed a separate COMSTAT system for reviewing our operational budget. We approached this through analysis of our cost centers. We created a second workbook for budgets. Each worksheet contains its own line item cost center. Again, several individuals are responsible for updating their portion of the budget workbook, and the same rules are in place here as well. We've limited the view of the budget COMSTAT to just supervisors, whereas all staff can view the non-budget COMSTATS. The creation of the budget COMSTAT has allowed us to make real-time decisions without having to ask our accounting division to run special reports or to access the county financial system between monthly reports to gain needed information.

### **Operating Smarter**

In conclusion, COMSTAT has given our administration a set of tools to support a more informed decision-making model. We have streamlined our data collection processes and are more efficient with employee tasks and assignments. All of our data is now contained in one repository that all employees can easily access. Boulder County's courts, probation, criminal justice services, district attorney's office, executive staff, and other inquiring agencies also are benefiting from more accurate, up-to-date, and accessible information about the jail.

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Document available at:

[http://community.nicic.gov/blogs/national\\_jail\\_exchange/archive/2014/07/22/computerizing-your-statistics-for-better-jail-management.aspx](http://community.nicic.gov/blogs/national_jail_exchange/archive/2014/07/22/computerizing-your-statistics-for-better-jail-management.aspx)

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