Advancements in Booking Technology

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Abstract

This research paper will examine several different aspects of advanced technology that is available to the correctional setting. The purpose behind the research was not only to ascertain its availability, but to examine why more jails are not equipped with more advanced technology. Several different reasons may arise, but I wanted to see if it all came back to one issue; fiscal availability or restraint. It was also important to see if recent purchases jails have made in this area were worth the endeavor based on price, availability or quality of the product itself.

Introduction (Literary Review)

Advancements in booking technology is an issue that not only intrigues the criminal justice community as a whole, but is also ongoing and constantly progressing. From the first recorded images of a mugshot in the 19th century to technology used today, which records biometric scanning of fingerprints, retinas and facial recognition, technology has changed drastically. These are only a few examples of this expanding field that is being researched by so many in the criminal justice community. However, as exciting and appealing as this issue is, the thrill is usually extinguished with the reality of budget constraints. That being said, it is obvious how some agencies with a larger tax base can afford more than others.

An example of budget differences would be a comparison of Miami-Dade County's obviously larger tax base as opposed to that of Hamilton County's. Even Collier County has a per capita income of $31,195 compared to Hamilton County's of $10,562. In fact, of the United States poorest counties, Hamilton County ranks number thirty-five. However, the State of Florida has six counties listed in the top one hundred wealthiest counties. These include Collier, Martin, Palm Beach, St. Johns, Sarasota and Indian River. Even while these counties rank high among other counties in the country, their jails still may lack the operating budget to purchase the advanced technology that is available. The applied sciences behind these modern designs are not only made to complete the tasks at hand more efficiently, but to increase the levels of safety and security within these facilities. Lower tax bases and budgets are not the only contributing factors to these purchasing constraints. Other variables that come into play are jail populations, the overall economy, politics and who actually operates the county's jail. For example, of the sixty-seven counties in the State of Florida, not all fall under the jurisdiction of the Sheriff. Some are under the County Commissioners and some are even privately operated.

As mentioned previously, Miami-Dade County has one of the largest populations in the State of Florida. The Miami-Dade Corrections and Rehabilitation Department operates six facilities throughout the county. Their average daily inmate population is approximately 5,800 and they book in approximately 100,000 inmates annually. They have an operating budget of approximately $347 million. This budget supports not only the day to day operations of these facilities, but also provides the salaries and benefits for over 2,800 staff members. In their 2011-2012 budget, $2.715 million was allocated for minor improvements to their existing infrastructure. Only a small portion of this could be used for any security enhancements. Prior to the current economy stronghold, this was not the obvious case.

Even with Miami-Dade's aforementioned austerity, certain advanced technological tools are still more attainable for them than Hamilton County, which as explained above, has an obvious lower allocation of funds. Hamilton County Jail has an average daily inmate population of approximately ninety-five and processes approximately 1500 inmates per year.

Even the more comparable jails in size have a wide variety of equipment being utilized to perform their duties in processing inmates and maintaining their inmate population. An example of this is a comparison of Volusia County's jail to that of Manatee County's facility. In Volusia County the average
daily inmate population is 1,369 with an average county population of over 505,000 residents. Whereas, Manatee County has an average daily inmate population of 1,293 and their county's resident population is just over 318,000. As the size of the jails may be close in comparison, the operating budgets for the two are substantially different. Many of the services provided to the inmate population in Volusia County are outsourced to private vendors, while Manatee County has implemented programs within to provide the same services. Therefore, funds in Manatee County may be more available for the purchase of some of the advanced technologies being discussed. Convincing the county's government of technology expenditures may be another story.

The purpose of this study is to not only see what advancements are available to the correctional community, but to try and determine reasons why jails of comparable size have to restrict the purchase of these items based on available funds. Another point to research and entertain is the possibility of attaining these items by other means other than that of an allocated operating budget.

Method

The research being introduced in this paper is to not only identify and analyze the different types of advanced booking technology available to jails, but to compare costs of such equipment and why some agencies are able to afford more advanced equipment than others. This information is being gathered to assist the Volusia County Division of Corrections in the planning phase of expanding their
Receiving/Intake and Booking departments of their jail. Other agencies planning the same improvements may be able to benefit from this research as well.

The first step was to research the actual technology on the internet. However, unless you knew specifically what to look for, the search was limited. Initially I had to base this

search on experience and personal knowledge of what I have viewed in other jails during my inspection process as a certified jail inspector for the State of Florida. As my research progressed, I did learn more about the products I was familiar with.

The next step was to develop a survey to send out to jails located within the State of Florida not only of comparable size, but areas of comparable tax base. The reason behind this was due to the fact that a county in the State of Florida with a similar jail population of Volusia County may be in an area of a higher or lower tax base. Such areas may include St. Johns County, Lake County, Brevard County or even Osceola County just as an example. Gathering this information from these comparable areas is not concrete either. For example, Osceola County has a similar jail population as Volusia, but their tax base is considerably different due to the different types of tourism they attract. This may enable that county to afford to pay more for such type equipment, and then again their local government may restrict them from these purchases for any number of reasons. Even though there are only 67 counties in the State of Florida, to expand this survey outside the state may hinder the results. This was based on different taxing issues and the way the money is spent within those states. Whereas the State of Florida has laws governing the ways their jails operate and how the money is spent to run those facilities. Each county in the State of Florida may have a choice of where the money comes from to include general funds, collection of subsistence fees, Inmate Welfare Funds, etc.

The survey included questions about their jails such as: average daily inmate population, the population of their county, the number of both certified/sworn personnel, the number of civilian
employees, who is responsible for the operation of the jail and if they have recently purchased new equipment of this nature or have been researching this issue themselves.

Strengths of this research include the discovery of new types of booking technology, what innovative ways agencies discovered to purchase this equipment and possibly the reasons behind the purchase. Often times it is not just about making the job easier or more efficient, but also for the safety of all involved.

A weakness of this type of research is that unless you know specifically what type of technology you are looking for, the information is more difficult to ascertain. Technology is out there and is expanding every day, however, it is not your everyday citizen that is researching this type of material. Therefore, the challenge is to not only research through the internet but also contact various agencies and personal connections to include their feedback as well.

Results

The results that were obtained for my research was accomplished using an on-line survey module. My Survey was sent out to 32 county jails. The survey consisted of ten questions related to my topic. The idea behind this was to send the survey out to comparable size jails with that of my own agency, as well as only sending it to one person per agency. Since the research being gathered only pertained to the agency itself, it seemed redundant to include more than one official within each agency. Of the 32 surveys sent out 12 were returned, which is a 37.5 % return rate. (See Diagram #1).

Diagram #1:
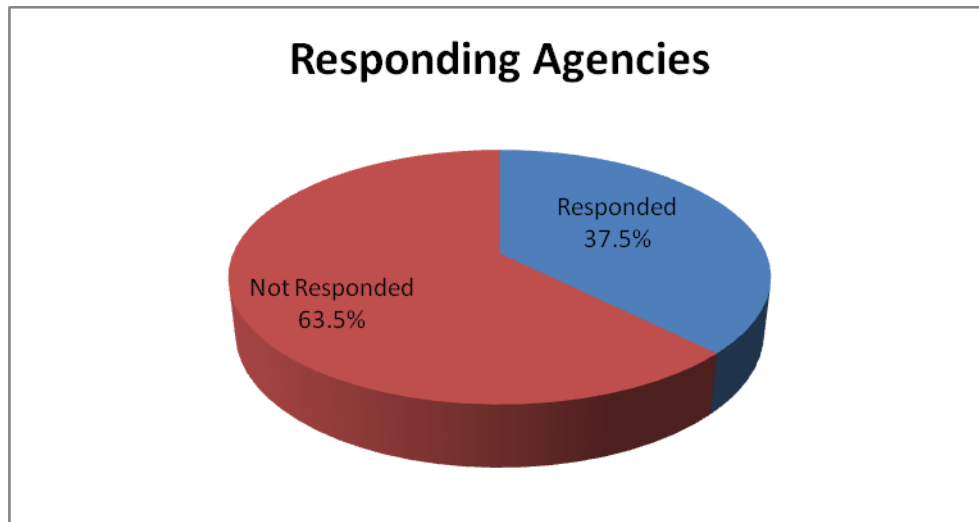
I announced a deadline for this survey to be returned and I periodically checked the on-line survey module to monitor the results. When I first discovered the lower than expected return rate, I sent out another reminder to the original agencies I made my initial inquiry to. This second request did not induce any additional responses. Once the data from this survey was returned, I analyzed and graphed it. Because of the smaller than expected return, I feel the data is not as conclusive as I had intended. Based on what I did receive, the following was compiled.

The first question on my survey was what was the average population of their county. The following results were obtained:

❖ Two agencies had a population of 10,000-20,000 residents.

❖ Ten agencies had a population of over 20,000 residents.

This question was used to not only identify institutions of comparable size, but also helps relate the area's population and the tax base it may fall under. It was originally thought that most counties that have similar size jails as the one I am associated with will have the same resident populations as well. Because of the low response, I was unable to validate this.

The second question on the survey was to determine their agency's average daily population of their jail. This somewhat conflicted from my original hypothesis, but was still close enough to collaborate with my research. I received the following results (See Diagram #2):

❖ Nine agencies had a jail average daily population of under 1,000.

❖ Three agencies had a jail average daily population of 1,000-3,000.

Diagram #2:

Responding Jail Populations

- Jail Pop. Under 1000
- Jail Pop. 1000-3000
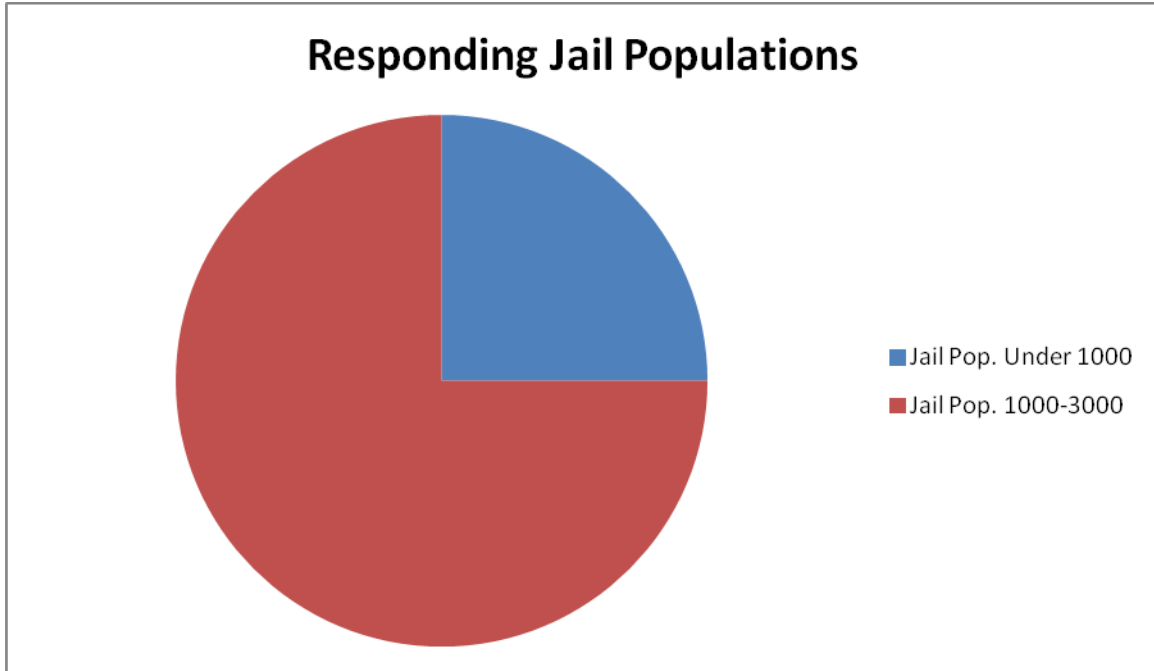
The third and fourth questions on the survey were designed to determine not only who ran their facility and how many individuals assisted in that operation, but also by asking these questions I would be able to determine if running the agency under a particular entity was better than the other. Was it possible that a Sheriff running a facility would have more resources than that of an agency ran under a county counsel or even a private entity? I was not certain of this as the agency I am affiliated with has been operated under a county counsel since my employ for over twenty five years. However, when the surveys were returned I noticed there were more responding agencies that were affiliated with a sheriff's department as opposed to that of an operation under a county counsel. The results were as follows:

❖ Eleven of the jails were ran under a Sheriff, and of these eleven six had under 100 sworn staff members, four had between 100-300 sworn officers and only one had between 300-500 sworn officers. What was unique about this research was that all had a similar amount of civilian employees. Seven of the twelve agencies had up to 40 civilian employees and four of them had over 40 civilian staff (see Diagram #3).

Diagram #3:

Percentage of Sworn Officers

Between 300-500 Sworn
9%

Between 100-300 Sworn
36%
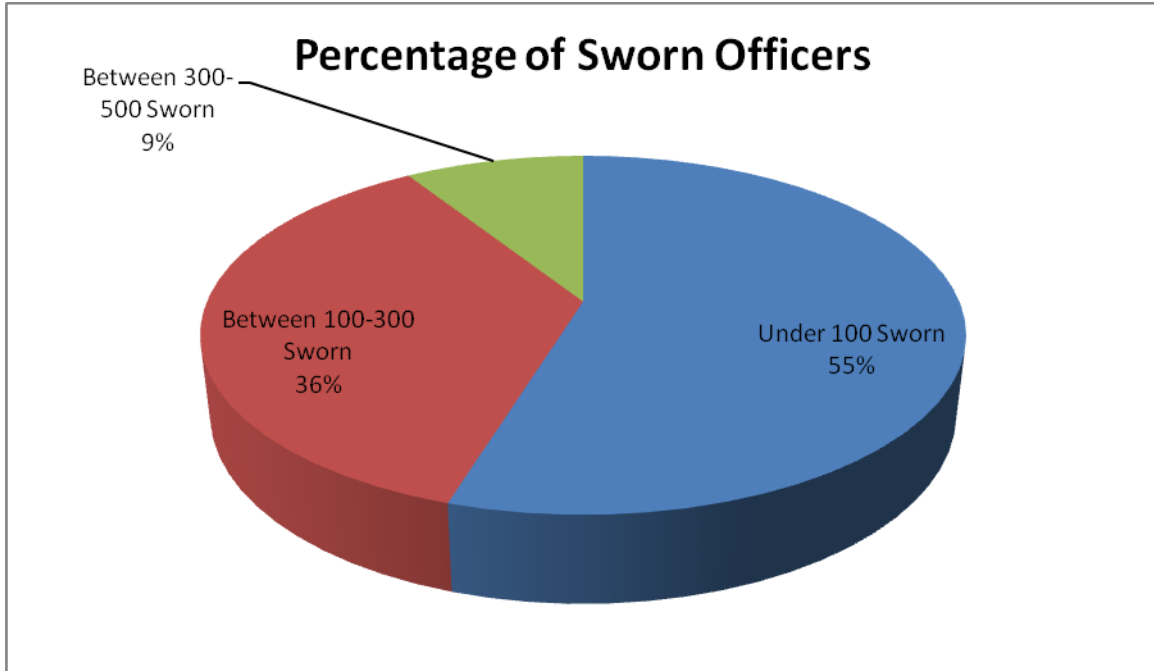
Under 100 Sworn
55%

❖ Only one of the twelve agencies responding to the survey was operated under the county counsel. That one agency employs between 100-300 sworn staff members and has over 40 civilian employees.

As mentioned previously, most of the data I was able to compile related to an operation under a sheriff, I could not definitively compare it to that of an operation I am more familiar with. Therefore, possibly ascertaining proof that a sheriff's department may have more resources was virtually impossible based on this collected data.

The research continued however with the next questions related to how the jail may be funded and whether or not their jail operations are fiscally assisted with that of a sustenance fee. The idea behind this was to determine if those agencies with fiscal assistance from a secondary source may be able to make more advanced technology purchases than that of one that does not. The results of these questions were very similar as indicated below:

❖ Nine of the agencies were operated solely by the county's general fund, and two were not. One of the responding twelve agencies declined to answer this question.

❖ Nine of these agencies also received assisting operating funds from a sustenance fee they charged, while three did not charge a fee.

In an attempt to determine how they fund their agency, and not being familiar with a jail operation under a Sheriff, my purpose with these questions was to see if they received their funding from a general fund or another source. I also wanted to determine if they received additional fiscal assistance with that of a sustenance fee to offset some of their operating costs. I did learn that those that charged this additional fee were required to return that fee to the county's general fund. The additional funds being collected helped offset the costs the county was enduring with the operation of their jail.

Finally the last three questions of my survey were in fact related to technology. I felt this to be the main reason for my research. More specifically, if they made recent purchases in advanced technology in the area of their jail operation. If they had not made any recent purchases I wanted to know if they desired such advancements but were fiscally restricted in doing so. And finally, if they had any desire to make these purchases to possibly better their operation. While conducting this part of my research, I was particularly interested in what technology was out there and if it is being currently used. In addition, I felt this to be useful if an agency discovered technology for a better jail operation that I was not aware of. Possibly this information would be useful in the expansion of our Booking operation that is being planned at this time. The following discoveries were made:

- ❖ Of the recent purchases made, all twelve agencies responded. Five had recently purchased a new JMS (Jail Management System); four bought a new Rapid ID system; one purchased a report writing system referred to as "SmartCop"; one purchased a property collection system which performs a "shrink wrap" process of the inmate's property and one purchased a full body scanner known as "Secure-Pass".
- ❖ When asked if there was other technology out there that the agency wanted to purchase still, 50 % expressed this desire, while the other 50% did not.
- ❖ And when asked what that technology was, only five of the six answered. One of these five desired a new camera system, while the remaining four enjoyed the idea of a new full body scanner or "Secure-Pass" system.

Even though there was such a limited overall response to my questionnaire, I felt there was enough information presented with these questions to continue my research. Especially since most of the technology recently purchased or desired from these twelve agencies were relatively the same.

The next step in my research was to examine each device mentioned above to determine if a purchase of this type of equipment would be beneficial for our agency.

My first quest was learning about one of the most popular pieces of new jail booking technology, the JMS or Jail Management System. As many can imagine there are not only a vast amount of systems available for jail's to purchase, but many variations of each as well. Hundreds of software companies offer these types of systems for purchase. As with any computer software, they can be as intelligible or as intricate as the consumer desires. This would all depend on the purchaser and the needs of that agency. Some jails are interested in systems like "Smart-Cop" which is designed for the report writing or records management aspect of their agency. Whereas other JMS are more complex, with modules for booking the prisoner into custody and assistance with

classification of that prisoner based on their charges, behavior and even history of past incarcerations. These JMS advancements will also assist with other aspects of a prisoner's incarceration such as, but not limited to, banking, property, mugshots, emergency systems and even simple door operations within the facility. Compared to the systems of old, the new JMS maintains these records electronically for an indefinite period of time. Ergo the statement about how a JMS can assist with classification of a prisoner not solely based on his/her current charges or behavior, but could include the inmate's activities or behaviors from their last incarceration(s).

The next recent popular purchase of the jails I surveyed was that of a Rapid ID database. This system I feel is a true representation of how law enforcement technology has advanced. This technology is offered either hard wired with the use of a tethered wire connection or wireless. The hard wire connection is probably most common in a jail environment. In fact, some Rapid ID systems that are hard wired are done so directly with the agencies JMS. The process being when a prisoner is booked into a facility, and fingerprints are obtained of that subject in association with their arrest, a separate finger scan is completed utilizing the Rapid ID system that is connected to the agency's JMS. This then associates that print with their identity during their incarceration as a regular set of fingerprints would. When the prisoner is released, that fingerprint entered in the Rapid ID system will verify the identity of the subject to verify his/her release as opposed to completing another whole set of fingerprints and waiting for a response. This would be a prime example of a jail's usage of this system, but law enforcement has other obvious uses, mostly with that of the wireless technology. But since my research was more driven towards the correctional environment, my focus was more emphasized there.

The next purchase to review was that of the property collection system using the method of "shrink-wrap" or removal of air in packaging of an inmate's property. This is done with the same technology as the general consumer would use for packaging and sealing food for storage. It is done in a clear package, where all the inmate's property is laid out and completely visible. The reason behind this technology is because the loss of property is an ongoing conundrum in the correctional setting. This is also done usually at the intake of a prisoner so he/she can validate their property prior to storage. Most of the jails that utilize this technology associate a policy with such. For example, the only time the property is opened is at release or under court order. However, if one is inquiring on a specific piece or pieces of an inmate's property, it can be examined more easily in this type of storage as opposed to the old method of sealing it in a container with limited or no visibility.

The last piece of technology that was purchased by only one of the responding agencies was that of a full-body scanner. However, of the five responding agencies that still sought the purchase of new booking technology, this was on their "wish-list". I know for example this piece of technology is under discussion in our own agency. This technology has actually been around for years. However, most individuals believe their design is a result of 9/11 and primarily for use in airports. This could not be further from the truth. In fact an airport in Tulsa, Oklahoma has been experimenting with this type of technology for many years prior to 9/11. But as you can imagine, they are becoming more prevalent as a result of that heart wrenching day. And as a result, jails, courthouses and federal buildings jumped on board with the use of this type of

searching system. The idea obviously was not to replace the simple pat-search, but to enhance the overall search process.

Discussion

The results of my research into Advancements in Booking Technology did reveal some interesting results with regards to the technology that is readily available. I certainly did desire more responses, but was satisfied with what information I did receive. That being said, I would of also liked to see more responses from those agencies in that higher tax base I discussed in order to see if those agencies were able to afford that advanced technology. I still believe though this is a good starting point for any facility to begin with when they are seeking new technology or expanding on their current equipment.

When I first started this process I discovered you could not just "Google" the term "Advancements in Booking Technology" and get the desired response. As mentioned before, you had to know the specific item you were searching. If you were not aware of what technology was available, you obviously needed this information first. Therefore, I found a great deal of use in the survey process. Asking questions relating to a specific item was very useful. Once I had a piece of equipment to research about, I could inquire more into that item using the internet. Many private companies make this information more readily available in this fashion. Realizing in my survey that I could have expanded on the questions I did ask, I was afraid I would not get a high return rate. However, this was still the case when I only asked ten questions.

During my research, there was one specific item that initially concerned me. In all the available technology I inquired or read about, the full-body scanner got my attention. This equipment seems to be not only the most popular, but also the most controversial. Even though most of the arguments relate to its use in airports, at least one of the same disputes could be its use in a correctional surrounding. That argument being about the possible health hazard associated with its use. However, many of the articles written about this state not only the pros and cons, but also mention their use has not been extensive enough to give an accurate comparable study. What I mean by this is the radiation it uses. Some believe its use could be harmful and they have not been in use that long to prove whether or not it is. The fact of the matter is the two main types of technologies being used for this purpose is that of "Backscatter X-Ray" and "Millimeter-Wave". These two types only penetrate clothing, and this is really the purpose of the scan. I do believe that it still needs to be associated with the traditional "pat-search". So many laws prevent the strip-search of individuals charged with misdemeanor offences, but more and more correctional settings are discovering these are the individuals introducing the most contraband. This type of technology certainly assists with the prevention of this problem. Therefore, one can understand the desire many jails have in its purchase. The prevention of that purchase though is the price tag associated with it. Research on this piece of equipment was extremely useful.

The other issue associated with the controversy of this piece of equipment is its possible invasion of privacy. However, in a jail setting the expectation of an individual's privacy would not be the same as that of a civilian passing through one of these scanners in a courthouse or airport.

Recommendations

Throughout this research I have discussed not only several different pieces of advanced technology available to the correctional setting, but also possibly why these advancements are not located in every jail. The explanation for this usually comes down to one main issue. That issue usually associates itself with politics but then ultimately evolves into the financial aspect of the purchase itself. Whether the institution in question is operated under the direction of a Sheriff, county commission or even a private company, fiscal responsibility usually outweighs issues like the purchase of equipment that is designed to make the jobs for their staff easier, safer and much more efficient. A couple of ideas come to mind to make this process easier for other institutions who are contemplating this endeavor. They are as follows:

- ➢ Survey other jails. Start big and find out what is out there.
- ➢ When conducting the survey, it is okay to branch out to institutions that are a considerable distance away from your own, just remember those that are in comparable tax bases.
- ➢ Surveying institutions that are near your own and are in similar tax bases are important, because those that are out of state may have different restrictions applied to them such as taxes, more distance from the manufacturer. Therefore, paying higher shipping, etc. may be other factors to consider.
- ➢ Fully research the actual piece of equipment. Most of this technology is made by more than one company. Remember the best price is not necessarily the best deal.
- ➢ Consider every aspect of your purchase. Are you going to outgrow the equipment, will it fit into the area you want to place it. All of these things must be considered.
- ➢ If an agency is in the market for new equipment to go into an area they are planning to expand, have a definitive piece of equipment in mind. This usually goes back to the size of the equipment.
- ➢ Once you have decided on the piece of equipment, go back and survey those institutions that may already have it. Most times the company selling the equipment will advise you who they have recently sold it to.
- ➢ If the survey results of the equipment itself are less than desirable, don't discard it right away. Find out why. Maybe their issues will not be comparable to your agency.
- ➢ Involve the individuals responsible for the purchase of this equipment. Yes, this means the public as well. Be prepared to explain not only what the equipment is, but how will it assist it the end product related to efficiency, overall cost and safety. Have facts, but make them easy to understand.
- ➢ If this is a large purchase, possibly involve the media. As explained above, have the facts broken down and understandable.
- ➢ Seek into funding with grants. This process is very time consuming, but the end result would be beneficial with the purchase of the desired product.

Captain Matt Reinhart has served the Volusia County Division of Corrections for 26 years. He has been involved in many different functions within that agency, to include involvement in the design of their new Jail Management System, supervision of the Safety & Compliance section, supervision of their Booking & Intake section and currently the Shift Commander of their main facility. In this time frame, he has seen his agency undergo many different changes. One of which is the re-design of his agency's Booking & Intake section.

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Appendix A

1. Approximate population of your county?		Create Chart	Download
		Response Percent	Response Count
Under 10,000		0.0%	0
10,000 - 20,000		16.7%	2
Over 20,000		83.3%	10
		answered question	12
		skipped question	0

2. Average daily population of your jail?		Create Chart	Download
		Response Percent	Response Count
Under 1,000		75.0%	9
1,000 - 3,000		25.0%	3
Over 3,000		0.0%	0
		answered question	12
		skipped question	0

3. Which entity is responsible for the operation of your jail?

Create Chart | Download

		Response Percent	Response Count
Sheriff		91.7%	11
County Counsel		8.3%	1
Other		0.0%	0
		answered question	12
		skipped question	0

4. How many sworn officers work in your jail?

Create Chart | Download

		Response Percent	Response Count
Under 100		50.0%	6
101 - 300		41.7%	5
301 - 500		8.3%	1
Over 500		0.0%	0
		answered question	12
		skipped question	0

5. How many civilian employees work in your jail?

		Response Percent	Response Count
Under 20		41.7%	5
21 - 40		16.7%	2
Over 40		41.7%	5
	answered question		12
	skipped question		0

6. Is your jail operation funded soley by your county's general fund?

		Response Percent	Response Count
Yes		81.8%	9
No		18.2%	2
	answered question		11
	skipped question		1

7. Does your jail charge a sustenance fee?

		Response Percent	Response Count
Yes		75.0%	9
No		25.0%	3
	answered question		12
	skipped question		0

8. Latest technological tool your agency just purchased for your booking/intake section?

		Response Count
	Show Responses	12
	answered question	12
	skipped question	0

9. Is there technology out there you recently wanted to purchase but were financially restricted in doing so?

Create Chart   Download

		Response Percent	Response Count
Yes		50.0%	6
No		50.0%	6
		answered question	12
		skipped question	0

10. If so, what is that technology?

Download

	Response Count
Show Responses	5
answered question	5
skipped question	7