Increasing Analytics Capacity

A Toolkit for Public Defender Organizations

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About the Authors

Meg Ledyard and Mark Erwin began working on indigent defense measures in 2013 through their participation in the OSF-funded North Carolina Systems Evaluation Project. At the time, Travis County (Austin), Texas was transitioning its indigent defense system from a court-administered, ad hoc assigned counsel system to a managed assigned counsel office, eventually named the Capital Area Private Defender Service (CAPDS). In order to prepare for the new office, Meg and Mark led county stakeholders in creating system measures that reflected the values and priorities of the community.

Mr. Mark Erwin is the Technology Manager for the Travis County Court System. His core practice is developing organizational maturity through technical innovation. Mark's prior experience has been in analytics, healthcare, marketing, social media and non-profit. He feels passionately about technology and has held many roles that field.

Dr. Meg Ledyard joined the Travis County Criminal Courts in January of 2013 as a policy analyst. Meg has an undergraduate degree from Harvard and a PhD in economics from the University of Minnesota, and is passionate about using data to inform public policy. Prior to joining Travis County, Meg worked as a Lecturer in Economics at The University of Texas at Austin. Her research has focused largely on using data and theory together to better understand public schools.

Prologue

In December 2015, NLADA convened a group of people who had diverse skill sets and a shared interest in improving indigent defense systems at a meeting in Baltimore, Maryland. Called the Defender Research Consortium, this group included chief public defenders, line attorneys, social workers, paralegals, researchers, information technology specialists, data analysts, policy makers and others. The initial concept of the meeting was to bring together indigent defense practitioners (attorneys, social workers, paralegals) and researchers to brainstorm areas of needed research for the field, and to try to spark research partnerships and projects. The discussions were rich and went a good way toward accomplishing these goals. But something unexpected happened, too. The perspectives of two positions you often don't see on the staff of a defender organization – information technologists and analysts; in short, "data scientists" – emerged as integral to the group's discussions.

Trained in different disciplines from both practitioners and researchers, technologists and analysts bring an additional viewpoint to defender research issues that is highly valuable. Specifically, any research projects will depend, first, on the availability of data and, second, on understanding that data. Yet many defender programs lack basic tools and capacity to collect and use data. Understanding what is involved in getting to different levels of data analytics capacity was something Consortium participants agreed would benefit defender programs. Admittedly, when we first heard the term "analytics maturity model," it seemed a bit too corporate world for defenders to embrace. But the term, which is indeed used in other sectors, including the business sector, nicely captures the path that defender organizations proceed down in order to effectively use and benefit from data.

Mark Erwin and Meg Ledyard attended the Baltimore meeting. Mark was the first to toss out the concept of an analytics ladder, or "maturity model" for defenders. We are grateful that Mark and Meg agreed to combine their skills and develop this toolkit to help defender programs understand what is involved with increasing their data analytics capacity.

- NLADA Defender Legal Services

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Chapter 1
Introduction

In the hyper-localized government sector of indigent defense services, individual defender programs have adopted a wide range of technology and analytics approaches. Some offices have little to no technology infrastructure, while others have a whole host of technology and analytics solutions. The purpose of this toolkit is to familiarize the indigent defense community with the potentials of technology and analytics to enhance the delivery of defender services, and to provide a map forward for improving individual program analytics capacity. By better understanding how their technology and analytics measure up against others in the field, defender programs can pinpoint areas for growth.

"If you can't measure it, you can't manage it."

– Peter Drucker, the "Inventor of Modern Management"

Analytics are used to find meaning in data. Analytics are integral to the for-profit sector, where businesses track their operations to enhance their profit. In comparison, non-profits and government organizations have been slower to develop analytic capacity. There are many reasons for this, but chief among them is the fact that measuring success in meeting policy goals, such as fulfilling the right to counsel, can be a more nuanced task than measuring success in meeting sales targets. Often the output and value of non-profits and government agencies are not as easily characterized as gross sales or net income. What should be measured: Process? Outcomes? Something else? For many non-profits and government organizations, including public defense organizations, policies involve goals for which the impact is seen only after long time periods.

In addition, in a field such as indigent defense, where resources provided are often not adequate to cover the direct services costs, it can be difficult to justify using resources to study system performance. Paradoxically, one of the biggest benefits of gathering data to show what you do (i.e., quantifying your value) is that you get more powerful evidence to use to advocate for appropriate funding. Governing bodies and funding institutions are increasingly demanding performance metrics to analyze and evaluate efficacy. If you can't even count the number of cases that your office handles, how can you determine how much you should be paid to handle them? While those in the for-profit world understand the value of doing an "investment analysis," many defenders do not yet think in these terms. Some may even fear what such an analysis may reveal.

Several other barriers can slow defenders' embrace of analytics. For instance, government agencies often have trouble implementing complex, integrated technical systems that communicate well. The availability of technical staff may be limited. And since advanced analytics is a relatively new field, the entire paradigm may be unfamiliar. This unfamiliarity can lead to a skepticism of the benefits of further data collection and more sophisticated analytics.

It is well worth the effort to push past these barriers. Analytics can help defender programs manage their work more easily, effectively, and transparently. This toolkit provides a frame of reference that will equip defender organizations to advance toward a future where data informs decision making on a daily basis and in a fearless way.

The Maturity Model

This toolkit offers a "maturity model" for understanding the data analytics capacity of indigent defense systems. Maturity models are tools that managers use to understand the sophistication and automation of their organization's business process relative to others in their field. An organization's "business process" is the series of activities or events that, performed together, produce a defined set of results or outcomes. In the corporate world, an entire field, known as "business process management," is devoted to understanding and improving process to help organizations better compete. Data and analytics are key to business process management, since businesses perform more highly when they learn, through empirical study, how to best align resources to achieve their objectives.

For indigent defense organizations, the "business process" is the work performed on individual clients' cases – from intake through re-entry – plus the other management and administrative activities related to supporting and delivering those services. As in any organization, defenders' business process management is more "mature" when they have greater analytics capacity and are able to continuously monitor and improve the delivery of their services.

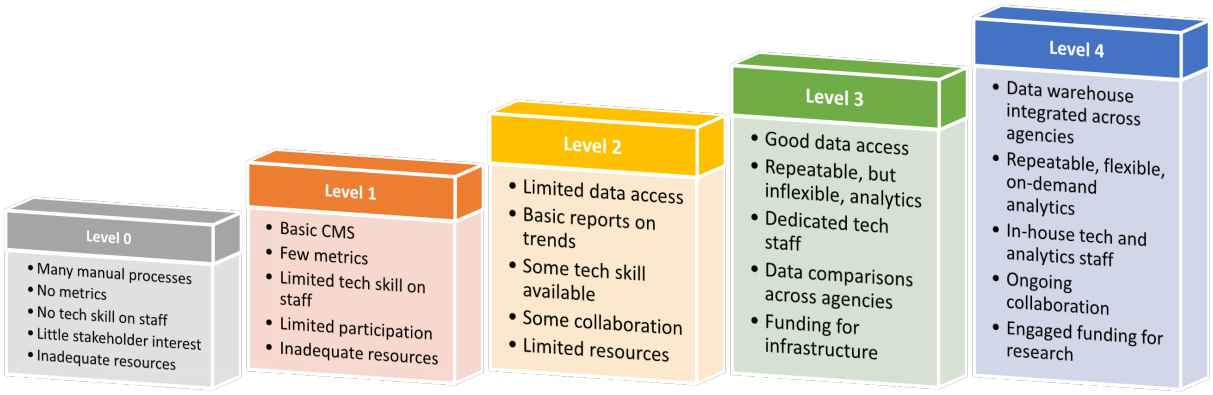


Figure 1. Maturity Model Levels for Indigent Defense

Our analytics maturity model for indigent defense programs includes five levels of maturity, Levels 0 – 4 (see Figure 1). Different aspects of an analytics program become more advanced at each level. Cutting across the five maturity levels are five aspects, or domains, of a quality IT and analytics program:

1. Technology
2. Analytics
3. People and Skill
4. Governance and Collaboration, and
5. Adequate Funding.

Maturity is not achieved simply by having a powerful data collection system, but also by equipping staff members to use and interpret data, and by putting in place political and fiscal support to ensure continuous collaboration and improvement.

How to Use this Toolkit

The balance of this document consists of four chapters. Chapter 2 provides a detailed overview of each of the five domains of analytics capacity. Sprinkled throughout Chapter 2 are examples from the New York Legal Aid Society's experience advancing its data analytics program. Chapter 3 describes the five levels of analytics maturity, and offers general recommendations for how to advance from one level to the next. Chapter 4 contains the Self-Assessment tool and Glossary. Chapter 5 concludes the document and lists resources.

A public defender organization can make use of this toolkit in multiple ways. One recommendation is to:

1. Work through the IT and Analytics Self-Assessment tool appearing in Chapter 4. Determine which levels best describe your organization's current state across the various domains.
2. Review discussion of the different domains in Chapter 2.
3. Read through what it takes to advance from one level to the next in Chapter 3, and chart your course for moving forward.

The Self-Assessment tool is something that a defender organization can refer to at different times and for different purposes. For instance, it can be of use in strategic planning, when an agency is undertaking a technology upgrade, when it is seeking to hire technologists or analysts, or as a checklist to review each year at budget time.

Chapter 2
Five Domains of Analytics Capacity

This chapter discuses key elements of five domains that contribute to a quality IT and analytics program: technology, analytics, people and skill, governance and collaboration, and adequate funding. Each of these elements appears as an area to score on the Self-Assessment tool in Chapter 4.

Technology

Technology is a core component of an analytics solution and encompasses the working parts (hardware, software, storage), their use and output. We focus on four major aspects of technology: case management systems, access to data, data validation, and integration technology.

Case Management Systems

For indigent defense organizations, a case management system is the backbone of any analytics program. At its most basic, a case management system is a computer software program, or database, into which users enter case-related information that can later be retrieved for various review purposes. How much and what type of information is collected varies widely across indigent defense programs.

Sophistication of defender program case management systems falls on a board spectrum. At one end is a workbook of Excel spreadsheets. At the other end is a custom-designed solution that offers integration with other justice system agencies. In between falls vendor-supplied commercial products that offer varying levels of tailoring and support.

Whatever its form, a well-developed case management system will be able to store information that can help attorneys and other members of the defense team do their jobs. A good case management system will make the user's life easier, not more difficult. Depending on the desires of the organization, it will contain documents, notes, activities and calendaring related to a case. It should collect basic information in a validated way. An ideal case management system will be flexible, allowing for additional collection fields the user determines are needed over time, and not just be restricted to what is initially provided in a commercial product. Additionally, that ideal system will be able to exchange information with other stakeholder systems, and perform actions on and accept actions from other systems. Finally, in an increasingly mobile world, the ability of attorneys to access their files from different locations and for teams to maintain a single electronic file has a big impact on productivity.

When done correctly, a case management system developed in-house can provide the optimal level of flexibility and control. It can be developed with close up and detailed knowledge of the business and its functions, and be able to collect the data in a way that will best support the direct delivery of services. Be aware, however, that development of an in-house case management system can also be much like a house remodel: unexpected expenses can develop, and a bad manager will leave you wishing you had just bought the easy-to-use, but not really everything-you-want, out-of-the box solution.

The New York Legal Aid Society Experience: Building a Case Management System

In 2006, the New York Legal Aid Society set out to develop a new case management system for its entire organization, encompassing its three practice groups (Criminal, Civil, and Juvenile). Within five years, all three practice groups could use one database and one client list, and thereby view all client matters associated with Legal Aid representation. According to Natalie Deduke, Manager of Legal Aid's Application Development Group (ADG), below are just some of the functions users tasked developers with creating:

- *Ensure that basic client info is available to the entire staff but case specific data is hidden, and only can be viewed by staff with the appropriate security clearance.* This capability was an absolute requirement. Now that this goal has been achieved, the next step is to build an automatic conflict checking process that will warn appropriate parties of a potential risk for conflicts. The solution is very complex and Legal Aid still struggles to achieve the ideal approach, but is determined to come up with it.
- *Provide the ability to view and analyze the data by different case participants, and in a format that makes sense to all of them*. This was another of the users' foremost requirements. To do this, Legal Aid had to think about developing sophisticated reporting capabilities in order to mine the data. ADG is in a perpetual report development stage, producing "canned" reports that the system users can run on their own at any time, without involving Management Information Systems (MIS) staff, as well as ad-hoc reports and data dumps that are requested for special projects or specific study.
- *Collect and store all important documents associated with a case in one virtual file.* Additionally, users sought to associate email, video and audio files with the case. The permission to access those e-files is controlled by a security matrix that governs the entire CMS. All case players, e.g., the assigned attorneys, paralegals, investigators, social workers, etc., can share notes on a case and receive email with information relating to the case.
- *Automate all requests coming from attorneys for specific paralegal work, investigations, social work and community services, and make them part of the virtual file.* Now automatic alerts containing particular instructions are forwarded to the people who are assigned to the tasks, informing them that requests were issued and when they are due.
- *Link Legal Aid's CMS to attorneys' Outlook calendars*. The existing CMS now provides that functionality, giving attorneys a quick view of their daily court appearances in Outlook.
- *Mine electronic data feeds received from the Courts for increased case support.* Legal Aid receives case data from the Office of Court Administration. Now, after processing and mining that data, Legal Aid's CMS issues special alerts, such as lists of clients with oustanding warrants returned (ROWs), reminders to review felony cases that are due on a specific day, etc. The list of potential automatic alerts issued by the system is a popular feature, and continues to grow.

Access to Data

Analytics depend, first and foremost, on data, so the availability, quality, and storage of data are essential considerations in a successful analytics program. Advanced case management systems will have access to their own data, plus receive data feeds from other organizations, such as the courts, that get integrated into a single data warehouse that can be mined for reporting and statistical purposes. In less developed systems, there will be limited access to data. The most limited systems will have little or no data that is stored electronically, making analysis almost impossible. A step up is a system that has data stored electronically, but is still limited in its access to the data.

As a system matures, users will want access to case level data and need the skill and technology to be able to query those data directly. Ideally, an organization should have full rights and access to its data. Some commercial vendors have proprietary storage solutions that limit a defender program's access to its own data. This can be avoided through use of vendor agreements. Terms should be clearly spelled out and cover the availability of data, its method of transmission, the form of the data, and any translation tables for understanding the data elements. It will do no good to get data from the vendor if the column headers on the data are not clearly defined terms.

Data storage can be accomplished in a variety of ways. At the most basic level, data can be collected by a "data dump" into Excel files which are stored on a file server and then manipulated. This method would be hard to automate or easily repeat, therefore it is discouraged. While the up-front cost and investment are higher, approaches such as data warehousing, replication, and real time integration have lower long-term operational costs.

Data Validation

Data quality will depend on the quality of the data input, its level of standardization, and its validation. A data collection field that has drop down menus will contain standard, predefined answers (see Figure 2). A field that allows for free text entry, such as an address field, allows for too many options and possible errors. (In one case management system with open text fields, at least four spellings of the variable "homeless" were found.) Avoid text fields when possible. With any system, your data analyst will spend a considerable amount of time cleaning and verifying data. This will ensure both a familiarity with the data and data validity.

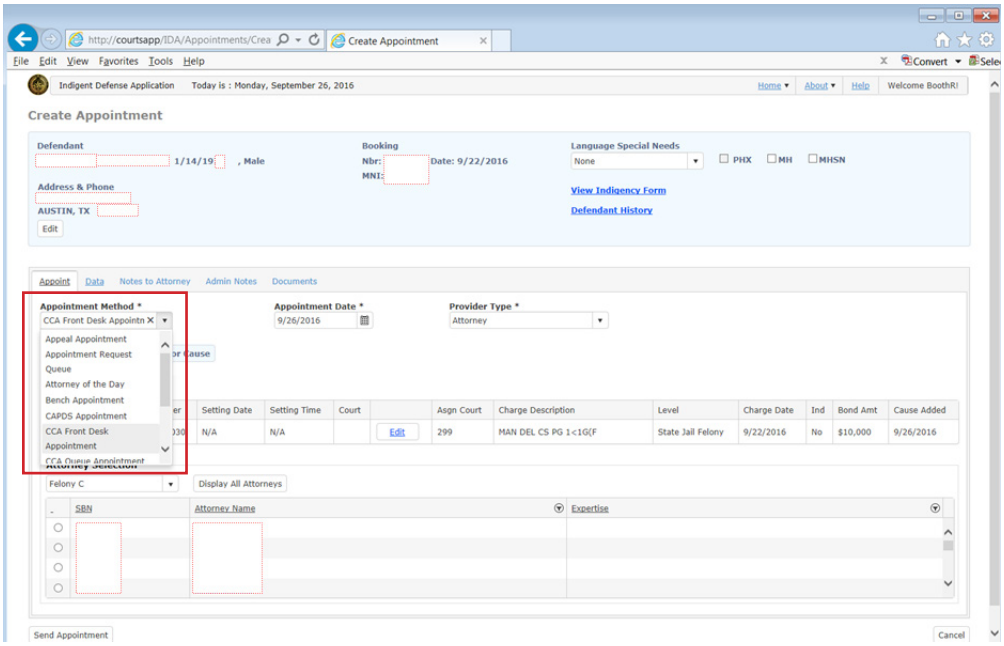


Figure 2. Drop Down Menu Options for Attorney Appointment from Travis County, Texas CMS

Integration Technology

Technology systems that don't permit information sharing, are unable to provide programming interfaces, and are not able to be customized and integrated with external systems are fundamentally crippled. Strong integration capability can unlock the value of a specific CMS's functions, or data, in a multiplicative way. When data in one system, such as the jail's, can be utilized by another system, such as the defender organization's, alignment across multiple business processes can be enabled and measured. If users can relate data between multiple systems, they can tie business processes together and do things like easily time the activities between systems – say, between booking and the first time a defendant meets with his or her lawyer.

Unfortunately, lack of integration is common – especially in government settings. Vendors often "close off" their systems from other systems, fearing corruption, lack of control or for licensing reasons. Similarly, organizations can be nervous about data integration because they may lose control. There may be questions about who "owns" the data. Similar to CMS vendor agreements, these integration concerns can be mitigated through memoranda of understanding that clearly spell out what data is and is not shared across organizations. (See Appendix A for a sample data sharing memorandum of agreement.) If done correctly, integration will unlock value in the technology far beyond the application that it originally resides on.

Integration technology itself can be represented by a ladder – with no integration, or only irregular flat file dumps, at the bottom of the ladder, and a real time integration platform or service bus at the top. In between the bottom and top rungs of the ladder are regular data dumps (daily, weekly or monthly), replication strategies, data warehousing services, application programming interfaces (APIs), and a number of other technologies.

Analytics

Analytics are the measures, reports, analysis, presentation and processes surrounding data. The analytics portion of your program will be the place where you learn about, research, and ultimately present your data. Well-developed analytics allow for self-discovery of data in addition to standard, pre-designated reports and statistics. Technology allows the user to discover relationships in the data that may be missed when data is obscured or ignored. For example, an advanced analytics program would allow a user to see a trend in the data and drill down to investigate its causes. Successful analytics depend on a combination of technology and skill.

Key Metrics

The success of your analytics program will depend on the measures that you choose to report. In the beginning, you may only be able to report counts of cases and other summary statistics (sometimes also called descriptive statistics). Eventually, you will want to collect and report a variety of measures that provide information that will aid in management and planning for the organization. When developing measures, we recommend an approach that is driven by the mission of the organization and the values of you and your partners.

Travis County, Texas went through such a process as it launched a new managed assigned counsel system, the Capital Area Private Defender Service (CAPDS) to replace an ad hoc assigned counsel system. In making the transition, county officials wanted to carefully measure impact and progress of the new program. A planning committee that included judges, bar leaders, CAPDS staff, data scientists, and county officials identified six over-arching values, or goals of the new system: quality, efficiency, fairness, compliance, access and continuous improvement. The key metrics, or measures, identified for each of the six values appear in a chart in Appendix B.

Reporting Capabilities

Once you have identified dimensions and measures to track, you will need a way to investigate that data and to disseminate the information to other people. This will be accomplished through a combination of reports summarizing the data and visual displays that best convey the information contained in that data.

Reports can take many forms, including pre-programmed, standardized data summaries and ad hoc information compiled by individuals on an as-needed basis. Depending on the access an organization has to its data and the complexity of the data itself, one form may be easier to produce than the other. If all data is stored in Excel spreadsheets, and there is a manageable amount of it, it is likely an organization will just pull, or extract, statistics as needed. If the data is stored with a vendor, the only access may be through pre-programed reports supplied by the vendor. For organizations with complete access to complex data stored in a data warehouse, they will probably produce both standard reports and complex ad hoc reports.

In addition to producing reports, an organization will want to display this information in a way that can be easily interpreted. This generally leads to the use of charts and graphs and more sophisticated data visualization methods. Excel can be used to develop a wide range of charts and graphs that look good and convey information well, but there are limitations. It is not easy to automate the creation of graphs and charts in Excel. Also, it is not easy for the user to change the dimensions or level of detail in the visualization. More complex data analysis tools (such as SPSS, STATA, SAS, or R) have graphing components that will allow for some automation of data visualization. However, the design of these visualizations is usually limited. For an organization that would like to be able to display information to a wide range of users, have the data updated automatically, and allow the users to view varying dimensions and levels of detail, dashboard software is a must. These programs allow developers to create sophisticated, visually appealing displays of the data, and to present the story of the data in a web accessible format. The flexibility and the automation of data updates allow better alignment between the business and the analytics because the business users are able to explore the data on their own. This can lead to insights that the analysts may have missed.

Figure 3. Travis County, Texas Analytics Dashboard

Introductory analytics usually consist of pre-programed reports that are available to users on a predetermined time-line. As analytics develop, flexibility is added, allowing for production of more reports, more responsiveness of reports to office needs, and more insight into the relationships between the data.

In addition to displaying the data and describing *what is*, analytics can also be used to forecast *what may be*. For instance, you can use advanced forecasting to predict what caseloads will look like in the future if the system remains the same. This can help with planning and budgeting. You can also use advanced analytics to develop an educated guess about the future and perform *what if* analysis. You can look at things like, what is the reduction in cases if drug laws change? Or, how do outcomes change when you introduce investigators earlier in the process? Does this save money or cost money? How do court-appointed attorneys respond to changes in fee schedules and structures? How does this affect case outcomes? These complex questions are ultimately the ones that most inform program changes. They can help managers strengthen indigent defense delivery to achieve better outcomes for clients.

The Legal Aid Society Experience: Analyzing and Reporting Data

Legal Aid has experimented with different reporting approaches over the past 15 years. As mentioned above, Legal Aid built into its CMS the ability for different case participants to view and analyze the data in a format that makes sense to them all. Users can run "canned" reports from the system without the assistance of technical staff. Technical staff can also run ad hoc reports and perform "data dumps" for special projects.

Nevertheless, Natalie DeDuke says, "while we have the internal data analysts to develop complex queries for data mining, very often we struggle to find a way to interpret the produced results. It takes a lot of time and effort to show the data in a format that is logical and easy to understand. This is definitely one of the Application Development Group's most time consuming tasks and a constant challenge." The task is complicated by trying to present information that is useful to all of Legal Aid's practice groups (Criminal, Civil and Juvenile). "Different roles require different data elements on the dashboards. So far we haven't come up with the key data elements that will be satisfactory for all."

People and Skill

A mature analytics program relies on people who are skilled in multiple areas of specialization, including technology, analytics, statistics, and program evaluation. Data scientists generally specialize in either technology or analytics. While there is considerable overlap in their skills, there are benefits to specialization and as an organization grows, it will likely want to employ both technologists and analysts.

Technologically Savvy Employee

Early on in an analytics program, there may be no in-house, full-time technologists or analysts. Often, if the organization has a vendor-based case management system, its IT support and analytics report writing capabilities will come from the vendor. In addition, any analytics tend to come directly from management, with directors creating bar graphs and pie charts to show budgets, workloads, perhaps even some outcomes.

Important gains in advancing an analytics program can come from engagement by an employee who is not a technologist or analyst but is simply interested in the work. This might be an attorney or other staff member with some technology capability who expresses willingness to help out. Such a technologically savvy person can aid in decision-making and planning plus serve as a bridge between the developing analytics and technology team and those on the "business end" – the case handlers and managers.

A close working relationship between dedicated analytics staff and management creates a powerful dynamic that is difficult to match working with a vendor. In order to fully advance your analytics program, eventually you will need dedicated, in-house technology and analytics staff, and then the role of that tech savvy employee will diminish.

IT Person (Technologist)

Technologists are required for investigating, planning, implementing and maintaining the application systems that input and produce the data. This includes everything from building basic technical infrastructure, to providing ongoing support, and training users. The technologists responsible for these core application systems can include business an-

alysts, software engineers, consultants, and implementation specialists (and just to make it extra confusing, there are many different titles for the same thing!).

Analyst (Statistician, Social Scientist)

Analytics, statistical review, and program evaluation require different sets of skills from technologists. People working in these areas understand the relationships between the data and the business itself, and will develop analytics to align with the mission of the organization. In addition, they will help with development of new analytics to best advance future data and analytics projects. A good analyst will learn the business process and ensure data integrity. This includes accuracy, completeness, and making sure that the data is used appropriately. Data can tell a story, both correct and incorrect. A good analyst will participate in the development of messaging about the data that is shared with policy makers and other external stakeholders to help ensure that the story the data is telling is accurate and clear. They will make sure that all explanations are explored, minimizing the risks of disseminating incorrect or misinterpreted data.

Analysts can come from many professional fields, including social science, criminology and public policy. There are quantitative workers in all of these fields that are deeply interested in aligning data and policy and using data to improve public services. The NLADA toolkit, *Building In-House Research Capacity*, prepared by the North Carolina Office of Indigent Defense Services, is a great resource to consult when hiring an analyst.

Training

As organizations adopt more advanced technology, it is vital to train anyone who will be using the systems. All staff who use data and analytics systems in their work will need to be trained on the software. This includes attorneys and other staff who enter case data, as well as staff involved with analytics and reporting. It can also be useful to offer training in how to use data responsibly. Finally, most technology and analytics systems are continuously improving, so staff who support these systems need to update their skills to stay current.

Governance and Collaboration

A mature analytics program will be aligned with policy goals; be facilitated by and have the support of key stakeholders; and document clear, well-defined rules governing data use and dissemination. Each of these considerations depends on relationships that are continuously nourished, both inside and outside the defender organization.

Internal Participation/Buy-In

Unless staff genuinely believe that data can help them in their work, it will be difficult to implement a mature analytics program. Implementation of new analytics tools and processes require shifts in behavior and mindset of all staff. To some, performance metrics can seem needlessly abstract. And learning new methods of tracking work activities can feel burdensome. If analytics and information are not wanted, or are minimized by the organizational culture, then the technology and analytics will never reach their potential.

Management buy-in and support set the tone for the willingness of everyone in the organization to both gather and use information. Alignment of analytics with the business process and the organization's mission is one of the most important elements to a truly successful and valuable analytics program. Messaging about the importance of analytics in working toward the organization's shared goal, i.e., to improve the services provided to clients, must come from the top. And involving non-managerial employees in the process of creating analytics and designing data systems will help build support from the bottom up.

External Collaboration (Courts and Community Partners)/Buy-In

When defender programs collaborate with other organizations on data projects, for instance on integration projects, it is important to clearly convey to them your long terms goals. It may be helpful to organize a group or committee to oversee and champion the project. This way, participants will be engaged throughout the process and fully informed about what your program is trying accomplish and why. As mentioned previously, any type of data sharing arrangement, such as with the court or a community partner, must be formalized through a memorandum of understanding (MOU) between the participating agencies. The MOU should clearly spell out each parties' access to data and responsibilities, and withstand successive leadership or personnel changes. (See Appendix A for an example.)

The New York Legal Aid Society Experience: Interfacing with Court Data Systems

In 2003, Legal Aid faced a major financial crisis that required it to restructure its business model. As part of these changes, it devised a technological solution to staffing shortages: interfacing its CMS with that of the Office of Court Administration. "That enabled us to update our Criminal Practice active cases via the court's interface," Natalie DeDuke explained. "As a result, Legal Aid no longer needed to staff every criminal court part in the City's five boroughs to track case outcomes, and instead could rely on the court data, feeding the info directly into Legal Aid's system."

Still, Natalie sees room for improvement: "There are many other City and Criminal Justice Agencies that we could exchange data with. A digital data exchange could guarantee less data entry errors, streamline the case processing time and reduce the administrative cost. However, there is still a strong reluctance on the part of many agencies to share data with Legal Aid. The culture is shifting, but only slowly."

Policy Participation and Guidance (Including Funders, Other Stakeholders)

Defender organizations should periodically discuss goals and status of their analytics programs with all relevant external stakeholders. Political climates may not always favor system-wide review of criminal justice policy and practice. Similarly, there may not be support for data sharing among agencies. Over time, though, this can change. Strong analytics systems equip defenders to participate in evidence-based, data-driven discussions about system-wide policies and practices.

Adequate Funding

As with all things, adequate funding is the only way to fully achieve your analytic and technology goals. Trying to achieve technology innovation by cobbling together what you can get will never align with the goals and objectives of the organization.

Funding for defender program technology and analytics often lags behind other criminal justice system sectors. Defender managers must educate themselves about the potential for data to better support operations, and they cannot be timid about advocating for investment in analytics capacity. Ideally, legislatures should provide defender programs with funds needed for establishing and then maintaining data systems as part of every budget cycle. However, it is also worth exploring opportunities to receive outside funds, such as through a Byrne-JAG grant, to cover start-up costs.[1]

1 The Edward Byrne Memorial Justice Assistance Grant (Byrne JAG) Program is a cornerstone federal justice assistance program.

For infrastructure and technology

In the most mature systems, there is adequate funding for not only maintenance of existing systems, but also improvement and development of new systems.

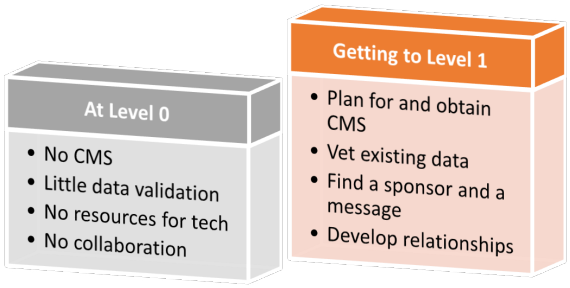
For staff and other human resources

In the most mature systems, there is adequate funding for people who work in both IT and analytics, and for their training.

Chapter 3
Levels of Maturity: 0 to 4

The following section describes characteristics of the five levels of maturity across the analytics capacity domains. For each level, there are general recommendations for how to advance to the next level and the benefits of doing so.

Level 0



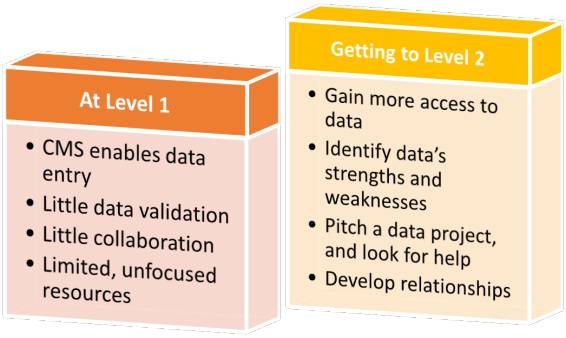
Organizations at Level 0 are technological infants. They make little to no use of technology, data, or analytics. The organization is resistant to change, often because of resource constraints. These organizations may keep any data they have in spreadsheets. Computing even the simplest statistics is a chore.

Getting to Level 1

When an organization is at Level 0, there will be numerous benefits to moving into the technology age. Manual processes can be automated, saving time and reducing error. Data can be stored in a central location for everyone to share rather than having different versions, thereby providing consistency. Paper can be eliminated. You can begin keeping track of what your office does. This gives a meaningful context to understanding resource constraints and lobbying for increased funding. If you can't explain to people what work you are doing, it is harder to advocate for your office and your clients. In addition to providing valuable information to funders, technology adoption can increase the productivity of the office, thus allowing for more effective use of the resources the office does have, leading to benefits to the client and the overall justice system.

To get to Level 1, an organization should implement a case management system. The selection, purchase and implementation of a CMS can be a long and arduous process. Choosing an appropriate system will depend greatly on the amount and scope of the organization's work. Getting outside input into the pros and cons of different options is advised.

Level 1



A Level 1 organization will have some sort of case management system, but will be limited in its access to the data, have very limited funding for technology, little or no IT staff support, and a lack of collaboration between stakeholders.

Strengths

One of the main strengths of an organization at Level 1 is the existence of a case management system. This system automates and standardizes data collection and storage. There are generally some fields that must be completed for each case. Case management systems also allow for some data validation. Most case management systems require, at the very least, some standardized collection of information — such as client name, case number, attorney assigned — and will also have predefined drop-down menus.

At this level, staff are becoming familiar with using computers to track and manage key aspects of the work of the office. The data can be aggregated and used for some limited advocacy for the organization. The existence of a case management system also means that there is some level of IT support, although it may reside with a vendor. There is also some familiarity with technology training.

Weaknesses

The existence of a case management system is not enough to guarantee the availability of data to the organization, and often if there is data available, it is passed through a vendor, limiting the availability of actionable information and a lack of flexibility. At this level, there is little visibility into the data, the organization often does not know how to access the data or even what data exist or in what form. There is typically not clarity over what data are stored, or what data get written over when changed in the case management system. At this stage, the data storage and retrieval process might be a black box controlled by the vendor (i.e., the data may be impossible to extract or not allowed by the vendor's contract process. Some vendors want to have exclusive control of data access and might charge for such access). With this limited amount of data, it is difficult to use data to inform policy or advocate for funding and support.

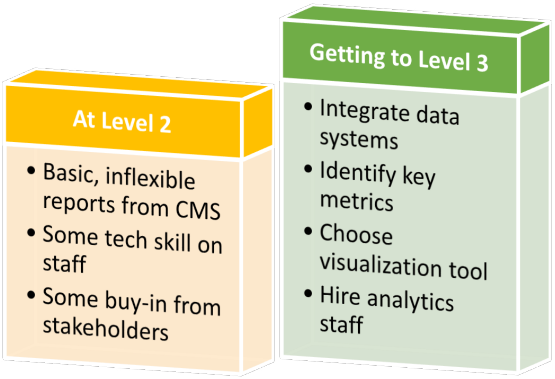
Getting to Level 2

Moving to Level 2 will allow the organization better insight into its data. Offices will begin to align data to the business mission. This improved coordination increases the value of data. The evidence exists, and can then be used for policy, management, and advocacy. Additionally, the organization will begin to integrate technologists into the business process, providing a pathway to connect management and technology. This connection will facilitate future technology and analytic maturation.

Getting from Level 1 to Level 2 requires better engagement between the organization and its data. This requires the involvement of technology personnel, either in-house (preferred) or vendor-based. If the technology personnel all reside outside of the organization, it is extremely helpful to identify a person in the organization who is, at a minimum, tech savvy. If you are really lucky, you will have an attorney or other staff member that has worked or studied in a technological field. From there you will need to identify who owns the data, how the data are stored, and what the options are for accessing the data.

In addition to your own data, it may be possible to gather data from other organizations or departments. This is also where you will begin to identify what data will be necessary to maximize the benefit to your organization.

Level 2



Level 2 organizations have data, technology, and some access to technology staff. There is little resistance to using data to track things, although resources are still rather limited. At this stage you are bringing together your team to support the larger goals, acquiring funding for and implementing a larger, more integrated infrastructure that aggregates data for visualization and analysis by qualified staff.

Strengths

An organization at Level 2 has begun to engage with its data and technology and has identified analytics that it would like to track. At this stage an organization may have access to pre-defined reports, allowing for some repeatable data analysis, but these reports are limited in scope and are often not easily changed.

There is an engaged technologist at this stage, either a full-time dedicated technologist or a zealous, non-tech-specific champion on staff. Management and stakeholders are beginning to use data in decision making, and are generally supportive of limited growth in providing analytics to stakeholders.

Weaknesses

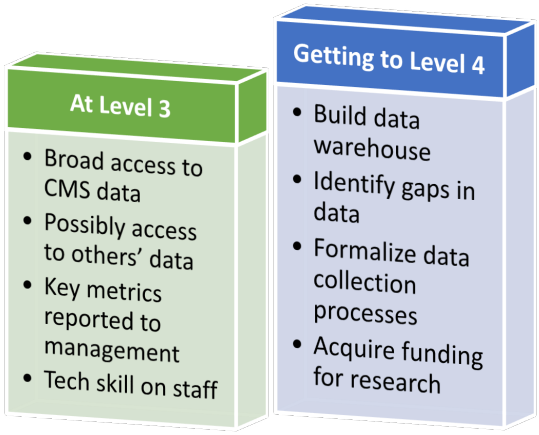
The major weakness at Level 2 is that there is still limited access to data and reporting capabilities are limited. The data are not always easy to pull, the reports are not flexible, and there may be delays in reporting, depending on the frequency of data pulls or reports.

The funding of technology is limited to case management systems, and does not include development or analytics, limiting the potential for growth.

Getting to Level 3

To get to Level 3 the organization will need to develop data integration techniques, a data storage strategy and allow for in-house IT personnel. The movement of data from an inflexible system where data are difficult to reach to a solution that allows for easy access to data is the key to reaching Level 3. In addition, there will most likely be additional IT resources necessary to develop and analyze the data. It may be necessary at this point to bring on board a person who can analyze and evaluate the data. In addition, new software will be necessary for displaying and analyzing the data. There are two major types of analysis tools. One is visualization software, which creates charts and graphs (e.g., Tableau or Qlikview). The other, which is used more for analysis and data manipulation, is statistical software (e.g., SPSS, STATA, or R).

Level 3



A Level 3 organization is well on its way to analytics maturity. It has access to data analysis tools and technology systems, and a strong analytics and technology staff. Reports are generated using a repeatable process.

Strengths

At Level 3, the organization has some control over and better insight into the data and the data gathering processes. There are members of the team who understand the business process and the data and are able to understand the interaction between the two. This has aided in development of some key performance indicators (KPIs), and an understanding that once KPIs are developed, they will still need to be refined.

For instance, perhaps the data capture process is not as clean or precise as was initially believed. The analyst will develop a sense of data correlations that will lead to new metrics and visualizations. These new metrics can then be vetted by managers, attorneys, and other stakeholders. This increases the confidence of all in the data. All data has anomalies and outliers. At this point, organizations will begin to develop rules to ensure that these outliers and anomalies are not obscuring meaningful relationships. This refinement work will result in KPIs that are as meaningful and valuable as possible.

At this level, KPIs are being delivered to key personnel on a regular basis. These reports are generated by a repeatable, automatic process, meaning that the analyst does not have to manually manipulate the data. For example, there might be a program that is run on a regular basis and a PDF is generated from the output. Sometimes the most time consuming part is formatting the report. There is a lot of reporting software available that produces easy to read numbers. The analyst will work to make the reports accessible to the users and stakeholders. At this level an organization may want to invest in dashboard software. This software allows for automation of data refreshing, computing of KPIs, and pleasant visualizations. This type of system allows users to remotely access reports and the reports will be as current as is the data loaded into it.

Weaknesses

A Level 3 organization, while well on its way to optimal analytics, still has some areas to improve. It has all of the building blocks, but there may be key gaps in IT knowledge and limits to data gathering or access. There is often still some resistance to using data in this way, and resources are often still limited. As the organization expands its analytics capacity, the IT staffing will need to increase. For smaller organizations, this may present a problem because their size

does not warrant enough full time employees (FTEs) that complete specialization would require. In particular, a small organization may be limited to one IT staff person. Most people have expertise in a limited number of areas, and in technology and analytics – both ever-evolving fields – that is particularly true. At Level 3, you may not have access to the full range of analytic and IT sophistication that is optimal, limiting the value of your analytics program.

Data at Level 3 are advanced but may still have limitations, as they are the result of limited resources and availability of technology. Trade-offs are still being made at this stage, however, they are more informed. The key is determining the correct balance between the value of what you want to collect, the cost of that collection, and the quality of what you are currently collecting. Some data are just going to be more expensive and difficult to obtain. For instance, tracking clients after representation to determine life outcomes is difficult, but may be essential to assessing whether the organization is achieving its core goals. When an organization should begin to collect that additional data is a calculus of the value that data will bring to the organization.

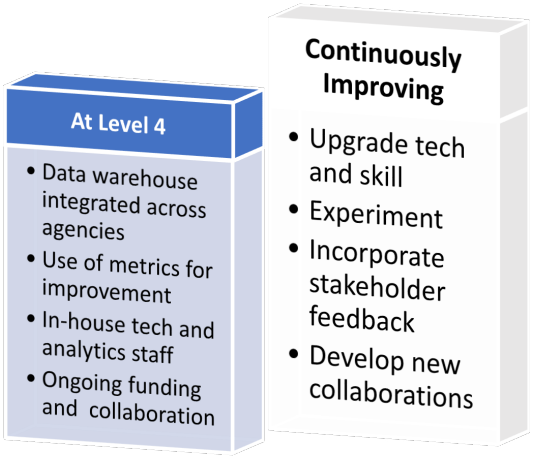
At this level, because not everyone in the organization is a sophisticated consumer of analytics, there is some danger of information being used incorrectly. Additionally, outside organizations and funders may notice your increased data capacity and begin asking more complicated questions that require time to answer, potentially placing a burden on your analytics staff. With competent staff and proper training, these risks can be mitigated.

Getting to Level 4

To get to Level 4, an organization will need to identify gaps in its data, increase its data gathering ability, formalize processes, strengthen staff's skill, and create engagement in the process through providing valuable analytics to all users. In short, a Level 4 organization engages in continuous refinement and improvement. Dedicated resources are important. But most important is that the analytics prove themselves to be useful to, and embraced by, their users.

Sometimes specialization can be key to increasing value of your analytics and technology program. Offices that cannot hire additional FTEs can look for opportunities to work with people outside the office. The technology and analytics fields have many consultants who are willing to work part-time, particularly if you are flexible with their work schedule.

Level 4



At Level 4, an organization has a mature technology and analytics program. This means it not only has the technology infrastructure and staff to meet its needs, but that the analytics are closely aligned with the business, and that the analytics process is well documented, largely automated, and accessible to a wide range of users.

Strengths

At Level 4, a defender organization's analytics are mature, business driven, and data collection is systemized and standardized. Systems are automated.

In addition to the technology and analytics advantages at Level 4, users are engaged; they are comfortable looking at and using the data. The stakeholders understand the value of data and are supportive of its use. Users value data, and use data as a tool to improve quality of defense services.

The analytics process is mature, well maintained, and well documented. A strong analytics program will have available to users a wide range of measures and visualizations available. There is consistency and structure to how those measures and visualizations are created. There will be standardization across analysts, and a person new to the system will be able to identify where the data comes from and the frequency of report and visualization updating.

Continuing Forward

It is important to remember that there will always be weaknesses that can be improved. Once a high functioning analytics program is in place, its continuous improvement becomes a process that allows you to better serve your clients and community. The project becomes an integral process for the entire organization.

Chapter 4
Self-Assessment

To use the IT and Analytics Self-Assessment tool, select the level that best describes where your organization is at the present moment for each category. Organizations will likely not fit cleanly into one specific level or another and are encouraged to use their judgment to determine which level is most appropriate once the assessment has been completed. For instance, if four out of the five answers in a given domain indicate Level 2 but one answer is in Level 3, Level 2 is likely most appropriate.[2] After an assessment has been made about an organization's current analytics maturity level, this toolkit can be used to craft a development path for future growth.

2 When staff with the Louisiana Public Defender Board took the assessment, they scored some categories as whole numbers (like 3 or 4) but others were not as easy to characterize, so were scored accordingly (like 3.7 or 4.5). As Director of Information and Technology Management Erik Stilling commented, "Some [of our] scores were not discrete integers because the truth fell between two of [the] score categories."

IT and Analytics Self-Assessment

Domain	Level				
Technology	**Level 0**	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Case Management System	None	Yes, basic, fixed fields, inflexible.	Yes, captures some activities and some outcomes.	Yes, captures activities, outcomes, possible to modify data elements and add fields.	Yes, easy to add data elements, easy to use, one stop attorney shopping.
Access to Data	Limited	Limited, record by record or on individual case characteristics. Aggregation or correlations limited.	Yes, may get data feeds on a periodic basis. No up-to data exportable data available.	Yes, continuous access and writing capability to a database. Data updated regularly.	Yes, data in own data warehouse. Can access all data continuously. Close to real time data updates.
Data Validation (characteristic of case management system)	None	Yes some fields are vetted.	Some data validated automatically.	Data validated across systems, most fields standardized.	Yes, data validated and vetted.
Integration Technology	None	Nothing to connect to.	Data has limited matching capabilities.	Can match data manually across systems. Limited automation.	Systems can communicate with each other. Data is shared across systems. Autofill of fields previously enter in other places.
Data Validation (characteristic of case management system)	None	Yes some fields are vetted.	Some data validated automatically.	Data validated across systems, most fields standardized.	Yes, data validated and vetted.

Analytics	**Level 0**	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Key Metrics Developed	No	Some: at least counts (of cases, clients).	Medium, piloting internal metrics use for management and advocacy. Mostly process metrics.	Yes, regular reporting of some metrics, continued investigation into most useful for the business.	Good metrics that are useful to the improvement of services and knowledge of the organization. Good process for continuous improvement of metrics.
Reporting Capabilities	None	Limited. Probably driven by some minimal reporting required by governing/funding agency.	Standard, non-flexible, static reports. Run regularly, but can't change content quickly or easily. Some limited ad-hoc queries available.	Good reports, some flexibility in content, someone able to run ad-hoc queries when necessary. Some data visualizations regularly generated.	Dashboard reporting with user discovery possible. In house staff to quickly create reliable reports or generate new dashboard views. May involve predictive analytics and statistical policy analysis.

People and Skill	Level 0	Level 1	Level 2	Level 3	Level 4
Technologically Savvy Employee	No	Someone interested, but limited time available.	Yes, involved in IT and analytics development.	Yes, helps with interaction between IT and business.	Yes, but not as necessary because of strong IT and analytics staff.
IT Person	No	No	Maybe: Could be an outside vendor.	Internal, but limited resources for development.	Internal, strong IT, with resources, time and experience to develop internal systems.
Analyst (Statistician, Social Scientist)	No	No	Maybe not a dedicated analyst, but some reporting and analysis in office.	Yes, someone with data management and analysis skills. May be the same as IT person.	Yes, dedicated, skilled data analyst with knowledge of both the business of defense and the data.
Training	Little IT training in office.	Limited in office training for staff on IT capabilities and use.	Limited general training for staff, some training on request.	General training for staff, still some key gaps in knowledge or comfort with tools and data usage.	Staff is trained and supported on use of analytics software. Adequate resources for continued training, and skill upgrades.

Governance	Level 0	Level 1	Level 2	Level 3	Level 4
Internal Participation/ Buy in	No	Someone interested, but limited time available.	Yes, involved in IT and analytics development.	Yes, helps with interaction between IT and business.	Yes, but not as necessary because of strong IT and analytics staff.
External Collaboration/Buy In	No	No	Maybe: Could be an outside vendor.	Internal, but limited resources for development.	Internal, strong IT, with resources, time and experience to develop internal systems.
Policy Participation and Guidance (including funders, other stakeholders)	No	No	Maybe not a dedicated analyst, but some reporting and analysis in office.	Yes, someone with data management and analysis skills. May be the same as IT person.	Yes, dedicated, skilled data analyst with knowledge of both the business of defense and the data.

Adequate Funding	Level 0	Level 1	Level 2	Level 3	Level 4
For infrastructure and technology	No funding available.	Little funding for systems or software.	Some funding for systems. Limits ability to advance analytics.	Funding available, one time, grant, not reliable, or sufficient.	Budgeted resources, that allow for maintenance and improvement.
For staff and other human resources	No staff funding.	Little staff funding.	Funding for maintenance, limited resources for training or improvement.	Funding for limited internal staff, but limited specialization possible.	Adequate staff resources for people and training.

Glossary

Analyst: A person who specializes in data analysis, program analysis and data visualization. (statistician, social scientist)

Analytics: Analytics is the process of examining raw data to draw conclusions; it refers to future-oriented analyses that are used to help drive changes and improvements. It is a stepping stone into better decision making, resource allocation, business process improvement and continuous improvement. Ultimately, an analytics solution that marries your organizational objectives to a regularly updated visualization of your progress on those objectives is ideal.

Business Process: Series of activities or events that, performed together, produce a defined set of results or outcomes. For indigent defense organizations, the "business process" is the work performed on individual clients' cases – from intake through re-entry – plus the other management and administrative activities related to supporting and delivering those services.

Case Management System (CMS): Refers to any system that collects and stores data for each case handled by the office or program. There are large variances in the things that case management systems can track, in how data are stored, and how they can be retrieved. Some things that differentiate types of case management systems and their data storage and retrieval capacity are:

1. Ease of Data Entry
2. Type of Data/Case Information Retrieved
    a. Court Case Data
        i. Events or register of actions
        ii. Disposition information
        iii. Probation information
        iv. Pretrial information
    b. Defender Case Data
        i. Defendant information
        ii. Attorney activities
        iii. Documents
        iv. Non-attorney activities
3. Data Storage Physical Location
        i. Server owned by agency
        ii. Server owned by service provider
        iii. Cloud owned by agency
        iv. Cloud owned by service provider
4. Data Storage Types
        i. SQL
        ii. Other type of database
        iii. Proprietary service provider storage

Data System: The core system or series of systems that record the workflow and important business process information is a Case Management System (CMS) that allows the staff and stakeholders to input required information for future use. Ultimately, the CMS should be based on modern standards of information management, provide a clear technical path to access clean data, and be available to query.

Data Validation: Refers to system requirements that enable data standardization and consistency within and between systems. A simple example is requiring a standardized entry format for fields that contain dates (i.e., require a mm/dd/

yyyy entry format instead of accepting free entry). A more complex example would be use of a personal identifier for each client, such as a number or name with date of birth, that is automatically loaded into new forms and associated with all data recorded for that individual across systems and records.

Key Metrics Development: Key Performance Indicators are a common tool to monitor performance in many industries. These can be indicators of multiple areas, including budget goals, process, quality and quantity. The best key performance indicators are those that are tied to the way that an organization works, i.e., its business process and, for public defense, are tied to organizational goals. For instance in Community Oriented Defense, KPI's gauge commitment to the community, the client and the holistic performance of the team. KPIs are best determined by the stakeholders.

Information Technology Professional: A person who specializes in the technical aspects of data capture, storage, and retrieval.

Integration Technology: Refers to the ability of systems to exchange data technically and the ability to share and match data across systems. Characteristics of good integration technology include:

1. Ability of the systems to exchange data with one another;
2. Existing applications have the ability to "read" other systems' data on a repeatable basis;
3. Data entered in one system can be automatically transferred to other systems, thereby increasing data standardization and validity; and
4. Reports can be produced that aggregate information from multiple systems.

Report Generation: The ability, process and speed with which information can be obtained and relayed within the organization. The best analytics programs have flexible, dynamic data visualizations that allow users to explore the data on their own (often referred to as dashboards). Organizations generally begin with static reports that are either automatically run or pulled from the database on a regular basis. More mature organizations have the ability to pull ad hoc reports along with the static reporting. The most mature programs can generate new reports easily, but also allow business users to be active users of the data.

Chapter 5:
Conclusion and Resources

Conclusion

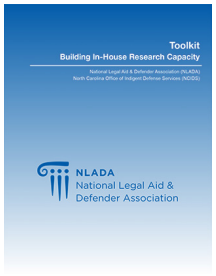
A strong analytics program will support quality indigent defense and help organizations "prove their worth" to skeptical funders. Keep in mind, however, that while data can be incredibly powerful, it can also be misused or misinterpreted. For instance, it is easy to confuse correlation for causation. Even when using appropriate statistical techniques, teasing out the causal effects from the correlations can be difficult.

In a field like criminal defense, where outcomes are multifaceted and some aspects are particularly subjective, only focusing analytics on things that you can measure may lead to neglect of important aspects of representation that are not easily quantified. Good managers will use data to manage things that are easily measured, such as whether an attorney meets with a client prior to arraignment, and balance that with their knowledge of things that are not easily measured, such as the way an attorney talks to that client. Data is only part of the story. Understanding that will lead to better use of data and better management overall.

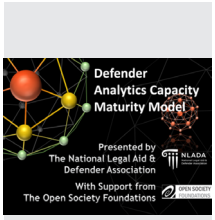
By understanding the potentials and best practices of IT and analytics growth, organizations can better plan for future improvement and development of their program. The information contained here gives a broad overview of a development path.

Resources

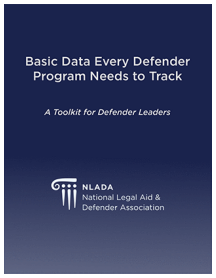
Available at www.nlada.org.



Building In-House Research Capacity Toolkit



Defender Analytics Capacity Maturity Model Webinar



Basic Data Every Defender Program Needs to Track: A Toolkit for Defender Leaders

Appendix A: Sample Data Sharing Memorandum of Agreement

Note: This is a sample data sharing agreement between an indigent defense commission, research partner, and county officials. This agreement should be adapted to your local needs.

Memorandum of Agreement Between

[AGENCY]

[RESEARCH PARTNER]

and [COUNTY/STATE]

[AGENCY] is sponsoring a research project investigating the impacts of type of counsel on criminal case outcomes. The research will be performed by [RESEARCH PARTNER] over a one year period beginning [DATE].

As part of the research project, [RESEARCH PARTNER] will perform statistical analysis of all felony and misdemeanor cases disposed in [COUNTY] between [DATE] and [DATE]. A list of the records to be included in these analyses is provided in Appendix A. These records are currently maintained by [IT VENDOR NAME].

We the undersigned [COUNTY] officials and data custodians, give consent to the release of criminal and court records required to support the research being sponsored by the [AGENCY] and conducted by the [RESEARCH PARTNER]. We further authorize [IT VENDOR] to deliver the requested data elements directly to [RESEARCH PARTNER].

[AGENCY NAME]

_____ _____

Tom Wallace, Director
[AGENCY]

Date

[RESEARCH PARTNER NAME]

_____ _____

Meridith Willingham, Ph.D.
[RESEARCH PARTNER]

Date

[COUNTY NAME]

The Honorable [NAME] Constitutional County Judge	Date
The Honorable [NAME] Local Administrative District Judge	Date
The Honorable [NAME] County Court of Law	Date
The Honorable [NAME] County Court of Law II	Date
The Honorable [NAME] Justice of the Peace	Date
The Honorable [NAME] Criminal District Attorney	Date
The Honorable [NAME] County Sheriff	Date

The Honorable [NAME] County District Clerk	Date
The Honorable [NAME] County Clerk	Date
[NAME] Chief Public Defender	Date

Appendix A

Data Elements Requested
(Class A and B Misdemeanors; All Felonies)

- Cause number
- Other Case ID numbers (to tie various components of the case together)
- Defendant SID
- Defendant demographics (date of birth, sex, race, and ethnicity)
- Defendant citizenship status
- Mental health/competency information
- Offense date
- Offense
- Offense type (i.e., Class A or B misdemeanor)
- Arrest date
- Arresting agency
- Warrant vs. on-view arrest
- Arresting agency
- Magistration date
- Booking date
- Bond date
- Bond amount
- Bond type
- History of bonds: Date of re-set and amount of new bond
- Release date
- Indigent status
- Date counsel was appointed
- Type of counsel (appointed vs. retained vs. public defender)
- Name of attorney (in both appointed and retained cases)
- History of type of counsel: Dates type of counsel changed, change made, and prior attorney name(s)
- Date case information received by DA
- Date case information received by clerk of courts
- Filing date
- Charges
- Court events
- Disposition date
- Disposition
- Plea vs. trial
- Sentencing date
- Sentence

Indigent Defense Values, Goals, and Measures

Value: Compliance		
Goals:		
I. Comply with the Travis County Indigent Defense Plan and State Law		
Objectives	**Measures**	**Source**
1. Prompt magistration	% magistrated within 48 hours (Fel.) % magistrated within 24 hours (Mis.)	Statute
2. Indigence determination standards follow Travis County fair defense plan	% appointed by each standard	Local Plan
3. Attorneys meet Travis County fair defense plan qualifications	% meeting requirements	Local Plan
4. Prompt appointment	% in jail appointed within one working day	Statute
5. Attorney selection process is fair and neutral	Top 10% percent of attorneys on each wheel have less than 30% of the appointments from that wheel	Statute
6. Clients are screened uniformly	a. % screened within 24 hours b. % in jail appointed within one working day	Statute?
7. Defense counsel is provided sufficient time and confidential space within which to meet client	a. Space available to meet. (jail and courthouse) b. Time available for meetings (jail time limits) c. Procedures for meeting with clients in jail	ABA
8. Defense counsel's workload is controlled to permit the rendering of quality representation	a. Caseload limits (by Travis County Plan) b. Caseload by attorney c. Number of attorneys with caseloads in different ranges. (histogram) d. # of days an attorney is above the caseload limit in the local plan.	Local Plan

Mission:
The Technology Team supports the Courts and broader justice system through smart technology

9. Defense counsel's ability, training and experience match the complexity of the case	a. Requirements of each wheel b. % meeting requirements for each wheel	Local Plan
10. Same attorney continuously represents client until completion of case	a. # of withdrawals b. # of originally appointed attorneys who dispose of the case 	Statute
11. Defendant is advised of rights	a. Metric from the magistration process? Do we capture or just in pre-trial?	Statute
12. Defense counsel is provided with and required to attend CLE	b. # of CLE courses provided by county c. % of counsel meeting CLE requirements	Local Plan
II. Adhere to General Principles of a Top Quality Public Defense Delivery System		
Objectives	**Measures**	**Source**
13. Public defense function is independent	On wheel versus off wheel appointments (how can we split out bench appointments from invoice apts, etc)	ABA 10 Principles
14. Defense counsel is supervised and systematically reviewed for quality and efficiency according to nationally and locally adopted standards.	a. Review standards in Travis County Plan b. % or number of attorneys failing to meet standards	ABA 10 Principles
15. Parity between the defense counsel and the prosecution with respect to resources and the defense counsel is an equal partner in the justice system	a. % of DA/CA resources that go to cases with an indigent defendant (estimate from public information) b. Total resources for defense in indigent cases. d. # of indigent cases with experts by type  e. # of indigent cases with investigators 	ABA Ten Principles

Value: Competent Representation

III. Goal: Clients receive competent representation

Objectives	Measures	Source
16. Counsel meets with clients in timely manner	Type and Timeliness of Meetings 1. Days from Appointment to first substantial meeting.  2. Days between work start date and disposition. 	
17. High quality representation	a. Outcome measures i. convictions  ii. % of cases where highest charge is reduced  iii. sentence  iv. sentence type  v. % convictions resulting in alternatives to incarceration  vi. dismissals  vii. sentence length  viii. financial costs  ix. # of days defendant incarcerated, pretrial  x. average bond amounts  xi. conditions of release (PR, Surety bonds etc.)  xii. failure to appear rates xiii. # days between filing and resolution  xiv. % of cases resolved within X days by case type xv. impact of pre-trial release on outcomes  xvi. % of cases overturned on appeal xvii. number of people diverted to specialty courts xviii. deferred prosecution (Judge Brown, Bradley Hargis)  b. Trials  c. Jail Call Outcomes  d. Resets by case type 	

Mission:
The Technology Team supports the Courts and broader justice system through smart technology

	e. Trial date certainty f. Withdrawals g. Disciplinary hearings/ grievances h. Use of Investigators 	
18. Representation is free of racial, gender, and other bias. (added)	a. Measure outcomes (above) by race, sex, citizenship (available) b. Socio-economic status (needs to be developed)	

Value: Fairness in Compensation and Appointments		
IV. Goal: Create fair compensation and appointment practices		
Objectives	**Measures**	**Source**
19. Defense attorneys are full participants	Defense attorneys are included in policy discussions	Statute (requires to include overhead)
20. Defense counsel is compensated fairly	a. Parity of payment per case compared to other local jurisdictions  b. Payment by case type  c. Potential Salary by wheel type, average actual salary for each wheel, perhaps by month	
21. Defense counsel is compensated promptly	a. Days between submission of voucher submission to auditor  b. Days from submission to auditor to payment of attorney 	
22. Attorneys on list are treated equally	a. % of appointments to each attorney on wheel.  b. % of appointments to each attorney by court  c. % of appointments to each decile of wheel attorneys (or some appropriate measure of the variance in number of cases)	

Value: Efficiency and Cost Effectiveness

V. Goals: Increase system efficiency and improve cost effectiveness

Objectives	Measures	Source
23. Cases move through system efficiently	a. Trial date certainty i. Number of resets ii. Number of pre-trial settings b. Case length i. Time from warrant date/indictment/information to disposition ii. Time from arrest to information/indictment iii. Time from filing to indictment/info	
24. Money is used in an effective manner/Most bang for buck (This type of goal is often best analyzed in comparison to alternative plans)	a. $ per case b. $ spent on investigators/specialists c. Recidivism rates d. Probation Failure rates	
25. Attorneys submit vouchers and are paid in a timely manner	a. Time from Work end date to submission of voucher b. Time from voucher submission to payment	

Value: Access to Counsel

VI. Goals: Enhance defendant access to counsel

Objectives	Measures	Source
26. Rules are flexible enough to be used in real life situations	a. Ability to make appointments outside of official indigence determination b. # appointments made to those not initially determined indigent c. % of cases with appointed counsel	
27. Public has access to courts' information	# of public facing websites	

Value: Transparency/Accountability		
VII. Goals: Provide transparency to appropriate stakeholders		
Objectives	**Measures**	**Source**
28. Appropriate data is available to key participants	a. Forms of data availability a. Dashboards (judges, administration)  b. Open Records requests (#)	
Value: Continuous improvement		
VIII. Goals: Improve system value in an iterative and continuous way		
Objectives	**Measures**	**Source**
29. New programs	a. # new programs per year b. # participants per program	
30. Scholarships		

Measures that could be useful, but not currently available in Travis County (or anywhere else really)

- Collateral Consequences
  - What are they for different offenses?
  - Are defendants aware of them?
- Defendant Satisfaction Measures

NLADA

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