

Prospects for Progress: Achieving a High Level of Integration is Feasible

There is substantial reason for optimism about the prospects for improving CJII. This study found that very high levels of overall integration have been achieved in some states and localities. Selected examples are described in some detail below. These examples can serve as lighthouses for integration efforts elsewhere by illustrating problems to be solved, successful strategies, and benefits to be obtained. In addition to successful examples of generalized integration, an even larger sample of integration-related initiatives are underway that have achieved many of their objectives. These initiatives are building the foundation for more complete integration, such as formal coordination bodies, data networks, and collaborative relationships. There is growing attention to the integration agenda in government at the local, state, and Federal levels, as well as in the news and professional media. This greater attention has been accompanied by increased allocation of financial and other resources to promote integration objectives. At the same time that attention and resources have increased, the cost of information technology has continued to decline, bringing higher capability within the budgets available for new initiatives.

Wide Range of Integration Objectives and Achievements

There is much to be learned about building a successful case for CJII by examining how a wide range of integration objectives has already been achieved. This section describes examples of local and statewide initiatives that have achieved such success. Quite a wide variety of initiatives were identified in the several states and localities included in the study (see Appendix for a complete list of places included in interviews). A number of these at both the local and state levels could be called **comprehensive** in scope. That is, the objectives of the initiative included integration across the several kinds of agencies that generate and use criminal justice information (law enforcement, courts, etc.) and, where appropriate, across levels of government. For example, an initiative to develop statewide standards for data definitions and data exchange across levels and functions would be considered comprehensive. A larger number of initiatives were narrower in scope, addressing integration objectives for one function or agency, or restricted to one level of government. These are referred to as **selective**. Development of a data sharing application for the courts system or a statewide data communication network for public safety use would be considered a selective initiative. Since these different types of objectives usually involved somewhat different strategies and issues they are discussed separately. The initiatives of both types identified from the interviews are summarized in Table 1 (below).

Table 1 Examples of Integration Initiatives

Scope of initiative	Level of Focus	
	Statewide	Local
Comprehensive	<ul style="list-style-type: none"> Legislation for statewide Coordinating Bodies/agencies: California (proposed), NC, PA, WA Colorado CICJIS system Kansas Kentucky New Jersey: Criminal Justice Information System (CJIS) Integration of State Police, Bureau of Justice Services, Division of Corrections, and the Courts System New Jersey: A statewide oversight group meets on a monthly basis. Reps from the CJ community including (but not limited to) OIT, AG, DCR, DOC, OMB, State Police, Victims Board and Governor's Office. This group decides what initiatives will be funded with Federal and state money. In addition, any initiative must have a project manager that reports the progress of the project to this oversight board. Pennsylvania JNET 	<ul style="list-style-type: none"> Harris County's JIMS (integrated CJI system) LA County CCHRS McClellan County, IL
Selective	<ul style="list-style-type: none"> Indiana's "Hoosier SAFE-T" initiative to implement a mobile data network JBSIS Court system in CA Maryland: Corrections Information System (CIS) Integration of separate databases from different divisions (corrections, probation, pre-trial) Maryland: There are small CJ technology workgroups but no large oversight group. New York: concentration on major cities, central repositories 	<ul style="list-style-type: none"> Local LiveScan adoption (LA County)

Along with widely varying objectives, the states and localities have a mix of histories for integration initiatives ranging over a 20+ year span. Integration initiatives that led to the current Harris County (Texas) system, for example, started as far back as 1977. California's mobile telecommunication efforts and data center activities have a similar longevity, as do a number of systems in other states. These systems with long histories continue to pursue new developments and at the same time new integration initiatives emerge continually at the state and local levels. Just this year, for example, the Indiana legislature created an Integrated Public Safety Commission, the Governor of Pennsylvania issued an Executive Order establishing a Steering Committee for a statewide criminal justice network, and North Carolina is putting the finishing touches on a statewide mobile data network for

law enforcement.

The result of this mix of objectives and histories across states and localities is a complex weave of projects, issues, achievements, and problems, a patchwork quilt of integration initiatives. An effective business case and argument for advancing integration initiatives must be tailored to its specific circumstances, to its particular corner of the quilt. To be widely useful in this kind of environment, support for business case development and promoting integration objectives must be versatile and adaptable. That kind of capability requires a good working understanding of the range of major organizational and political problems and issues faced in integration initiatives, and of successful strategies to overcome them. That working understanding, as illustrated by two well-known initiatives, is the focus of the discussion that follows.

Integration Success at the Local Level: Harris County, Texas(4)

Getting Started: The JIMS as an organization dates from 1977, when the County Court of Commissioners (legislature) created the JIMS department and Executive Board. That was the culmination of several years of planning and preparation, stimulated by a class action suit on jail overcrowding. The resulting review of jail problems revealed weaknesses in the information systems as well, prompting the County to seek major improvements of the three existing information systems, which did not communicate with each other. The courts and law enforcement agencies in the county, working with the data processing operations organization, undertook an in-depth analysis of information use by the entire criminal justice enterprise, which produced recommendations for a new data processing center to take over the operations of the three existing systems. Coincidentally, the county government had just installed a new main frame computer system. Other county agencies were slow to move to this new system, so it had substantial excess capacity available for criminal justice users. Thus results of careful planning converged with political pressure to act and the availability of new resources to provide opportunity for major change. The Commissioners responded and the formal development process emerged.

The fact that the system emerged as a highly integrated one can be attributed more to planning decisions than to good luck. That is, the political and organizational circumstances provided an opportunity and impetus for movement, but did not dictate the direction to be taken. The early planners and analysts chose the comprehensive approach. During the initial planning, two years were devoted to what one participant called "walking the track," a finely detailed examination and documentation of all the information uses and transactions involved throughout the criminal justice business process. This necessarily involved all the organizational units and personnel in the planning and analysis process, building support and ownership. When the time came to do something about criminal justice information, they chose to do something comprehensive, aiming for broad integration objectives from the beginning.

Governance and Organizational Strategies: At the policy and executive level, JIMS approach to governance was a mix of centralized and decentralized, or collaborative. It was comprehensive in that the Executive Board included the heads of all county agencies and courts involved in the justice enterprise. It is centralized in that policy decision making and control authority is located primarily in one body, the Executive Board, at the top of the agency hierarchy. Budget for JIMS operations was consolidated under the Executive Board. The new organization was given the authority over data standards, definitions, and elements, as well as responsibility for software and security. Decision making and operations, however, require interagency collaboration. The policy function of the Executive Board at the top requires the collaboration and agreement among 13 elected officials heading 12 different agencies.

Mobilizing Resources: Funding and resource mobilization for JIMS have evolved from ad hoc arrangements used to create the organization to a regular component of government operations. The initial budget was built with a mix of funds from existing data centers and operations. Over the JIMS life time the organization has moved from an ad hoc unit with resources gathered from several sources to a separate organization with its own line item, staffing, and governance. There has been a gradual increase in the size and funding of the operation, along with regular investment in enhanced technology and new capabilities.

The evolution of the funding arrangements and the overall development of JIMS appear to be more like a process of institution building than project development. It seems clear that the overall goal was to establish a permanent operation with ongoing needs for support, growth, and development, rather than a project with a limited development period and resource needs. Of course much of the ongoing work of JIMS is planned and implemented in a project methodology.(5) But those activities take place in an institutional framework of established assumptions about continuing operations, growth, and development requiring continuing support and investment.

Technical Development Strategies: Several elements of the JIMS development strategy seemed to be

important in its success. One was that design and development decisions were based on a comprehensive and well-grounded understanding of information flows, business rules, and user needs. Another was designing an appropriate mix of centralized standards and controls with decentralized or distributed repositories and systems. The result was a mix of centralized and controlled components with flexible and adapted components for the collaborating agencies. A third element was taking an incremental approach to system development within a longer-range planning framework to develop components in smaller, more manageable steps as part of a long-range strategy.

Current Status and Development Plans: Overall, JIMS is a large operation. The current JIMS has a staff of 40 and an annual budget of over \$2 million of County funds. The systems contain over 130 million criminal justice records and over 67 million civil justice records. The user community consists of over 15,000 individuals from 144 county agencies, 111 other local agencies and governments, 11 state agencies, 15 Federal agencies, and over 800 subscribers. From the original focus on criminal justice, the system has grown to include civil justice information as well. The current system already includes jury management and payroll processing as well as an extensive civil justice component, and a GIS system that can be adapted to differing agency needs. Plans for system enhancement extend well beyond basic law enforcement and court procedures to include open warrants, address records, pawnshop data, gangs and gang members, and vehicle registrations.

Integration Success at the State Level: Colorado (6)

Getting Started: Integrating criminal justice information in Colorado began with a 1980s statutory commission to explore integration and provide legislative guidance. (7) Before expiring in 1994, the commission arranged for all agencies involved to testify before the legislature as to why integration still did not exist. The resulting “educated frustration” among the legislators led them to pass a new initiative in 1995 creating the CICJIS Task Force. (8) The Task Force was charged to jointly develop a strategic plan for the implementation and maintenance of an integrated criminal justice information system. The General Assembly adopted the strategy outlined in that plan and funded the effort. The Task Force presented the initial plan to the statewide Information Management Committee (IMC) in June 1996 and the final plan was approved in September 1996. In March 1998, three test pilot sites began evaluating the full system and the CICJIS went live statewide in May 1998. The annual CICJIS budget line is \$1 million and another \$400,000 of revenue from contracts.

Governance and Organizational Strategies: CICJIS was designed and operates under a centralized governance structure. The IMC has overall approval authority over CICJIS planning. An Executive Policy Board has business authority over the overall system. Operations of the CICJIS are the responsibility of a CIO who reports to the Executive Policy Board (EPB). There is a separate Drug Control System Improvement Program Board (DCSIP) that also reports to the EPB. The DCSIP Board oversees Federal grant money administered by Department of Criminal Justice and deals with long-term strategic issues regarding systems.

The CICJIS governance structure appears to be very top-down in nature. Executive level employees from each agency are the primary members of the CICJIS governing bodies. With this high-level, mandated participation came considerable expectations from the legislature for action. As a sign of these expectations, the statute creating the CICJIS contained project goals within the footnotes of the legislation. The participants had placed high expectations upon themselves since they were primarily responsible for the creation of the legislation in the first place. Local participation was sought and representatives from local jurisdictions were present at all levels.

Technical Development Strategies: The development approach was based on analysis of business requirements and an extensive business process mapping exercise of each component of the criminal justice enterprise.(9) The results indicated a strategy of integrating existing legacy systems while maintaining their own independence as much as possible within their organizations. Information was to pass from one agency to another with as little disruption as possible to the environments of each agency. This did not assume that future reengineering or migration toward more common systems would not be necessary, only that getting the interdependency established with success was the primary first step. This approach has provided the ability to extract and join data across the entire CICJIS system for the purposes of decision support at all levels. This will allow for a complete criminal history that has up to this point been impossible to achieve.

Measuring Success: The CICJIS project included benchmarks from the inception of the project. Performance criteria were placed in the enabling legislation. This early focus on tangible outcomes was carried throughout the project.(10) A series of benchmark reports were scheduled throughout the project and six months after statewide implementation. The reports will cover the success of the four technological tasks to be accomplished: (1) the Index; (2) the transfer of data; (3) standard queries; and (4) drill downs into case specific information. At the time of this writing, these reports were unavailable.

Current Status and Development Plan: CICJIS is currently up and running. Several initiatives are underway to

explore the functionality and utility of the system. The Board continues to meet and discuss the issues raised in the early implementation phase and seek solutions to the problems.

Overcoming Barriers to Achieving Integration Objectives

These examples and a number of others collected during the study clearly show that efforts at enhancing integration can be successful. That success depends, however, on overcoming the many barriers to integration found across the sites we studied. This section discusses those barriers and examines ways they have been overcome.

Turf

As one interviewee stated it, “Turf is the biggest killer of integration.” Similar sentiments were expressed in all the interviews. It was clear that “turf” constitutes a major barrier to achieving integration objectives in most settings. To understand these barriers, it is necessary to analyze the concept of **turf** and explore the implications for enhancing integration.

As used in the cases we studied, the concept of **turf** seems to include at least three major reasons organizations act defensively: (1) to avoid the costs of change, (2) to reduce or control risk, and (3) to preserve autonomy or protect their position in a competitive or adversarial environment. Integration typically requires a degree of centralized control and shared decision making that could compromise an agency’s control of its own operations or resources. Protecting turf can be particularly important when the potential loss of autonomy or control could benefit other agencies that are political or institutional adversaries. Since the agencies are all government organizations, political and institutional adversaries are part of the natural environment. In the case of the branches of government, maintaining independence and balance of power are legitimate concerns of each branch, based ultimately in constitutional structures.

Institutional Turf: Institutional turf refers to the role an agency must play because of the basic institutional structure of government, as found primarily in Federal and state constitutions. The essential elements of this structure are independent branches of government with a balance of power among them. The role of courts and judges in integration initiatives clearly illustrates institutional aspects of turf. In the initiatives described in the study, courts and judges played varied roles; in some cases they exercised strong leadership and advocacy, while in others they were seen as more resistant and defensive. This can be accounted for, according to one analyst of court systems, by differences in courts’ and judges’ technical and administrative resources. Where court administration has been professionalized and judges are technologically sophisticated, they are more likely to support integration and take leadership roles. Where courts’ and judges’ knowledge is less advanced, information integration can make them more dependent on executive agencies, which are typically much more advanced in terms of management and information systems.

Since the participation of courts is central to integration, these particular turf issues are critically important, and not easily resolved. The judicial system’s sensitivity to any threats to its independence is a legitimate concern. If the willingness of the courts to take a positive role in integration depends on their own administrative and technological development, then ensuring or enhancing that development is an important integration strategy.

A similar case of legitimate turf sensitivity involves the defense bar, and public defenders in particular. Defense attorneys’ duty to seek the best defense for their clients can make them resistant to integration efforts that they perceive to improve law enforcement and criminal prosecution at the expense of the accused. But they do have an interest in ease of access to records and related materials that can be useful in defense. One public defender noted that the high cost of searching for and obtaining many paper records needed for defense planning and preparation can hinder the defense of indigent clients. Integration that improved the efficiency of access to those materials would be more likely to elicit support from the defense bar and reduce this particular form of sensitivity.

Within the executive branch of government, there can also be institutional rivalries and adversarial relationships. Attorneys General and Governors are independently-elected constitutional officers in most states. This is true of prosecuting attorneys and executives at the county and municipal levels as well. Political rivalries are thus often part of this institutional structure and must be taken into account in integration strategies. A number of the initiatives mentioned in the interviews originated with either a Governor or Attorney General. In these cases, the governance structures that were developed provided for shared authority across executive agencies and a mechanism for conflict resolution and collaboration.

Organizational and Personal Turf: Organizational and personal turf refers to the defense of status, power, or

other resources that may be at stake for organizations or individuals in any particular integration initiative. Advancing integration of information requires collaboration and change at the personal and organizational levels; this involves potential costs and risks. Resistance to this collaboration and change is another form of turf defense, taking the form of unwillingness to enter into collaborative arrangements and agreements, or refusal to adapt organizational resources, structures, or procedures to the needs of integrated systems. There is the added risk of embarrassment or loss of status resulting from release of some kinds of information to the public or to other agencies. For example, local law enforcement agencies may be unwilling to incur the cost of instituting new booking procedures to fit with integrated arrest or identification systems. Similarly, courts may be unwilling to restructure case and calendar information in ways that make workloads appear smaller.

This form of turf problem appears to be the consequence of insufficient trust and incentives. The expected benefits from participating in the integration effort were too small relative to the cost of change or to the increased risk of collaborating with uncertain partners. The problem was common across the locations and initiatives we examined, but it was almost always solved or reduced to manageable levels. The successful solutions depended on building trust and increasing incentives, or making the resistant participants more aware of incentives and benefits, and controlling costs. These are described in more detail below.

Diversity, Complexity, and Incompatibility

Criminal justice activities take place in a highly complex institutional setting. This raises barriers and increases the difficulty of designing effective integration initiatives, and organizing the necessary collaboration among the participants. A few basic statistics illustrate the scope of possible variation. According to U.S. Department of Justice statistics, there are over 19,000 state and local law enforcement agencies in the country, over 3,000 local jails, and over 1,500 state and Federal prisons. State and local courts, which handle the great majority of criminal work, handle over 85 million cases a year, and approximately 1 million persons per year are convicted of felonies. This large volume of criminal justice activity is distributed over a complex matrix of state and local government structures. For example, Texas has 254 counties, more than a third of which have populations under 10,000, compared with Florida's 66 counties, only 5 of which have populations smaller than 10,000. Court organization in states can vary from uniform systems to complex layers of state, county, and local courts. There may be several types of trial courts in some states, or only one general trial court, as in Minnesota. Courts may be financed fully from the state level, or by a mix of state, county, and local funds. Similar variability is found in jail and prison systems, as well as in parole and probation functions. Inconsistencies in scale and structure are the rule rather than the exception.

Given this context, the prodigious variety in integration initiatives and technologies found in the study was not surprising. This can be another kind of barrier. Each of the states had developed its own approaches and most had multiple integration components or initiatives underway, either in comprehensive or selective forms. This diversity is reflected in the wide range of information technology investments and information systems already in place across levels and departments of the governments. The compatibility and consistency in applications necessary to create integrated systems is thus more expensive and complicated to design and develop.

The diversity is reflected in uneven rates of development and considerable range in technological sophistication among the jurisdictions in states. In some of the states in the study, the large cities had progressed faster than the state government agencies. Seattle, for example, was unwilling to wait any longer for the state of Washington to be ready to take action and has reportedly gone forward with its own integration initiative independently. The five major urban areas in Texas are also reportedly ahead of the state and are trying to resolve the resulting conflicts in approach that interfere with greater integration. Los Angeles County has achieved a level of integration well above that of the state of California. The barrier here seems to be uneven capacity to innovate or to adapt divergent technologies, rather than an unwillingness to collaborate or integrate information systems.

Need for Champions, Coordination, and Standards

A common theme in the successful initiatives was the importance of an effective advocate and mobilizer of action and support, usually referred to as a "champion." The research on innovation generally corroborates the importance of top level support and the need for effective advocates and leaders in promoting change. This factor may be even more important in the domain of criminal justice information integration, since there are so many complex barriers and problems to overcome. In almost all cases a person with considerable organizational or political influence played an important role, often described specifically as overcoming barriers or breaking up points of resistance. The champions described in these cases occupied a number of different positions: governors, attorneys general, a state police superintendent, chief judges, and occasionally legislators. In these cases the champion role required a position of considerable authority or leverage, plus a personal and/or political

commitment to the integration objectives.

One role of champions, or other strong form of leadership, appears to be overcoming the resistance of separate, independent jurisdictions and agencies to accept coordination and standardization. The lack of this kind of leadership is a serious barrier to achieving integration objectives. A certain minimal uniformity and consensus on data, infrastructure, and procedures, as well as shared decision making, is necessary to achieve most integration objectives. Many of the actions of champions in the states and localities have been to initiate some kind of coordinating structure or policy, and to exercise power to persuade organizations to participate. This kind of coordinating function is critical to virtually all the integration objectives we encountered.

(4) Harris County, including the city of Houston, is the third largest U.S. county in population according to current Census estimates, with a population of 3.2 million. The county covers 1788 square miles, includes 27 city or village governments in addition to Houston, rural areas, and a major seaport.

(5) The current JIMS Director's Report mentions 403 projects completed in the preceding year, including a mix of development, maintenance, and production projects. (<http://www.co.harris.tx.us/jims/NewHome/Publications/Mostat/mostata.html#projects>).

(6) Much of the information used in creating this description came either from the CICJIS Web site <http://governor.state.co.us/gov_dir/cicjis/> or from an interview with David Usery, former Chief Information Officer, CICJIS Task Force.

(7) Other elements of the CICJIS have been around much longer: the Colorado Bureau of Investigation (CBI) Colorado Crime Information Center (CCIC) created in 1971; CCIC includes a statewide telecommunications system linking criminal justice agencies, fingerprint based identification, arrest, charge and disposition records, automated fingerprint identification system (AFIS), a criminal gang member identification and tracking system, a statewide incident based crime and arrest reporting system (IBRS), a domestic violence restraining order index, and a system for screening workers in child care, the elderly, and the disabled.

(8) The Task Force is comprised of the executive directors (or designees) of the Departments of Public Safety, Corrections, and Human Services, and the State Court Administrator.

(9) The maps can be found at http://governor.state.co.us/gov_dir/cicjis/Indproc/overview.htm

(10) The measures can be found at http://governor.state.co.us/gov_dir/cicjis/strategic/BENCH.html.