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The Emerging Role of Information Technology in Prison Reentry Initiatives

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THE CHALLENGE OF REINTEGRATING incarcerated individuals back into society has recently become a major concern among criminal justice policy makers. Although prisoner reentry is not a new criminal justice issue, its importance is exacerbated by recent correctional policies that have resulted in incarcerating large numbers of persons for significant periods of time, the release of prisoners who have not received treatment, and the failure to provide adequate services and surveillance in the communities after release (Petersilia, 2001, Travis, Solomon & Waul, 2001).

The "new" reentry perspective emphasizes a holistic approach to offender reintegration. The approach is broad-based, including consideration of the circumstances facing prisoners as they prepare to leave prison, their ultimate return to society, and the impact of release on families, victims and the communities in which they live. Current reentry models are grounded in a comprehensive theoretical framework that often draws upon restorative justice ideals, social disorganization theory, and specific treatment modalities that emphasize the importance of the individual and community for successful outcomes (see, e.g. Petersilia, this volume).

To fully support individuals released from prisons, reentry initiatives call for a reorientation of how incarcerated individuals are treated that spans the criminal justice system and involves prison, treatment programs, the police and the community. Under this model, agencies share the responsibility for the successful integration of offenders back into the community. Participating agencies collaborate with each other and with offenders (or clients) in ways that serve to monitor progress. Byrne, Taxman & Young (2001) describe this process of reentry using a systems perspective, where the focus is not on one agency, but on sharing roles and responsibilities that best support individuals as they progress through the various stages of reentry.

Such a comprehensive view of offender treatment, surveillance, services, and control presents formidable challenges. One collaborative challenge is the need to make informed decisions about offenders using data from agencies responsible for offender reintegration. Advances in information technology (IT) over the past few decades have made it easier for criminal justice

agencies to collect, process, analyze, and share information.

More importantly, the information that is maintained in computer systems can be used to provide decision-making support for reentry programs. Most criminal justice agencies are using some form of IT to manage information. IT can be used to promote effective planning, management and evaluation of reentry initiatives in ways that address the individual, agency and community levels. To highlight the role that IT can play in the reentry process, this article will: 1) consider the information needs of reentry initiatives; 2) examine the current state of information technology as it pertains to each need; and 3) describe the opportunities and current challenges of IT for reentry.

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The New Technology of Reentry

[Table 1](#) summarizes the potential of information technology to support reentry decision making, particularly through monitoring offender progress in prison and the community. The discussion of IT support for reentry will start from a statement of goals and objectives and move toward the specifics of how IT can support realization of these goals and objectives through performancebased measurement. Performance-based measurement involves quantifying organizational indicators that can be used to gauge how well an organization is meeting its goals (Wright, 2003).

There are three goals of reentry initiatives. The first is to maximize offender (client) readiness for release from prison. Second is to maintain individual success in the community once the offender is released. The third goal is to protect and support the community to which this person returns. Each of these goals has a different objective and therefore different information needs. Some of the more specific questions to consider at this point include: What information is needed? Is it currently collected? How is it collected and shared? How can it be used to the support the program?

At the individual level, the objectives for in-prison reentry goals are treatment and surveillance. To some extent the information technology needs of treatment providers in prison and in the communities are similar. Both need classification and treatment information about individuals on a program-specific basis. Records management systems (RMS) should include classification information on those participating in reentry programs along with indicators of program involvement. A recent national review conducted by the National Insititute of Corrections found that management information systems for intake and classification were being used by correctional facilities in some states (Hardyman, Austin & Peyton, 2004). The authors of that report also emphasized the need for increased data sharing among intake facilities, courts and other correctional agencies, as well as linked management information systems that would allow for more accurate and up to date assessments.

Those responsible for administering treatment programs should also be responsible for automated record keeping. The users of this information (and therefore those needing access to it) would be case managers and parole and probation officers who must monitor the progress of offenders through treatment. The opportunities presented by this information include the development of performance measures of individual treatment, such as participation, completion, and other progress indicators. These indicators would also be available at the agency level to determine program-level performance measures, such as completion and participation rates.

Offender treatment that takes place in the community has additional information needs. Once offenders are out of prison, programs and services that may be needed (such as those that deal with employment, housing, etc.) are available in the community at large. Case managers, parole or probation officers need to identify where these services are and determine the availability of these programs to service their clients. These data sources may also be used to identify services available for victims. Many phone directories and yellow pages are now computerized and have search capabilities based on business classifications that include social services. Program

inventory databases may also be developed especially for this purpose. Moreover, many of these data sources can also be mapped using Geographic Information System (GIS) software.

The opportunities presented by these program inventory sources include more efficient planning for offenders as well as the increased capacity to determine service or program needs for a particular area. This approach was used in research by Harris, Huenke & O'Connell (1998). They used GIS software to map the proximity of recently released inmates to social services, including unemployment offices, mental health services, and substance abuse treatment centers. They found that offenders living in rural areas had limited access to these facilities and the information was used to justify the need for drug rehabilitation services for offenders as they reintegrate into their communities.

An example of a sophisticated integrated offender case management system is the University of Maryland High Intensity Drug Trafficking Area Automated Tracking System (HATS). HATS is an automated information system that is used by the Maryland Division of Probation and Parole, drug courts, community-based treatment programs, and other agencies serving offenders in Maryland. This system integrates data from many sources relating to offender treatment and supervision. Information on offenders is available regarding intake, referrals and appointments, program inventory, offender confidentiality and releases, supervision, graduated sanctions and treatment tracking (Taxman & Sherman, 1998).

Community supervision and surveillance are additional objectives for ensuring individual success in the community. Knowledge of offender compliance with release conditions is essential for anticipating recidivism risk. Violations of release conditions and any imposed sanctions would be useful performance measures. To meet the surveillance objective, electronic tracking devices such as electronic monitoring equipment or global positioning systems can be used for continuous geo-based monitoring of offenders in the community. The performance measures that can be generated from such systems include violations of space or mobility restrictions.

The impact of incarceration and reentry on the community has been well documented in the literature (Rose & Clear, 2003, Cadora, 2003, Clear, Rose, Waring & Sculley, 2003). It can be argued that this research has been instrumental in helping to promote the philosophy underlying current reentry initiatives. Community safety is always an important objective of any crime control strategy and reentry is no exception. To promote community safety, the police are being asked to contribute to the reentry process by offering support in the form of crime control. In many jurisdictions, departments inform patrol officers about offenders being released in their communities and this intelligence can be used by police to help monitor offenders and inform parole/probation about an offender's involvement in criminal activity.

This is a central feature of the Lowell, Massachusetts reentry program (Byrne & Hummer, this volume). The crime analysis unit in the Lowell Police Department is responsible for creating these profiles. Crime analysis units, which are largely responsible for data-driven identification of crime patterns, are well suited to provide this information. These research units are typically found in large, urban police departments.

The information used to create offender profiles may include photos, fingerprints and other biometric information, behavioral histories, supervision plans, etc. Physical descriptors such as photos or fingerprints may be available in local, state and federal databases such as Automated Fingerprint Identification Systems (AFIS). Criminal history information may be available from state and federal criminal history databases. To monitor potential criminal activity in the community, many police departments maintain records management information systems (RMS) that include arrests and incidents that can be routinely searched. The discovery of an arrest or investigation involving an offender can be forwarded to a probation or parole officer in a timely manner. In addition, offender progress in treatment can be mandated by treatment providers and any change in offender participation/progress could potentially be "shared" with local police as well as community supervision personnel.

The support of the communities to which offenders return is the second community level reentry

objective. The information needed to assess the health of communities includes measures of social and economic conditions and crime. These measures may include but are not limited to crime rates, incarceration rates, employment, public assistance and family support, and public expenditures. For example, Eric Cadora (2003) used computer mapping to demonstrate the geographic relationship between rates of incarcerated individuals and those receiving public aid (2003). This information can be used to provide community based assessments of reentry initiatives.

Some programs that gather this type of neighborhood based information are already in place. One example is the National Neighborhood Indicators Project (NNIP). Funded by the Annie E. Casey and Rockefeller Foundations, The NNIP goal is to provide operational and development support to projects in major cities that merge agency data from many sources to create neighborhood-level social and economic indicator databases (Kingsley & Petit 2000; Pattavina, Pierce & Saiz, 2000).

These "ready made" neighborhood indicator databases, developed at universities and research organizations, are available in many cities. They are very useful for area-based analysis because they are comprehensive in content and cover communities for entire cities over long periods of time. Moreover, neither the police nor any other participating criminal justice agency is solely responsible for the considerable effort needed to build and maintain and distribute such databases. This model is currently serving as the basis for the Urban Institute's Reentry Mapping Network project, which will examine neighborhood-level data on incarceration, community supervision, and indicators of community social and economic well-being to support reentry programs (The Urban Institute, 2003).

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Information Technology, Decision-Making and Reentry

There is little doubt that an infrastructure of information gathering can significantly support reentry operations. The purpose of the previous discussion was to provide a general overview of information technology available for reentry in terms of information needs and what IT support currently exists to support those needs. Based on the summary of IT described earlier in this article, it appears that a variety of information technologies are available to support reentry.

Of course, simply identifying relevant information needs and technology available provides only part of the reentry decision support picture. Those with experience in building information technology capacity in any criminal justice agency understand that it is not enough to put the technology in place, although that alone can be a considerable feat. It is also necessary to incorporate this new technology into day-to-day decision making, problem analysis and strategic planning initiatives. The technical aspects of making the hardware and software IT components work could in itself be the subject of a lengthy publication, the details of which lie beyond the scope of this article. There are, however, organizational and policy issues that are appropriate for discussion because of their relevance to making the most of information technology for reentry programs.

Organizational Challenges

The first issue involves building and maintaining the commitment to develop IT capacity. Organizational support is crucial at this stage. Support efforts may include the steady funding for IT projects and updates, the direct involvement of agency personnel in building IT capacity and the support for IT skill development among the staff. If there is no organizational commitment to IT development, it is unlikely that changes in work processes that would maximize the use of IT for internal (information gathering and processing) and external functions (information sharing and indicator measures) will be successfully implemented.

A parallel issue involves organizational culture and resistance to change. Reentry initiatives call for the reconsideration of the roles and responsibilities of participating agencies in dealing with

offenders. This approach may challenge the cultural embeddedness of existing organizational functions of the police and corrections. Participating agencies may simply adapt information technology to support current functions rather than to support new or evolving ones (Manning, in press).

This concern has echoed in other agencies as well. In a meeting summary of the National Institute of Justice Mapping in Corrections Resource Group Meeting, a major factor impeding the adoption and use of mapping technology was the reluctance of corrections personnel to change the ideology of corrections from institution- or "fortress"-based to a more community-based model willing to take advantage of mapping technologies (Crime Mapping Research Center, 1999).

Legal and Political Considerations

Next is the challenge of creating informationsharing protocols. Not only must IT be well designed to support internal functions of an agency, but in the case of reentry, it should also be flexible enough to support external functions such as information sharing. Such a capability is necessary to support the collaborative and evaluative aspects of reentry.

Agencies must buy in to the collaboration and perhaps even be willing to alter their approach to dealing with offenders. Collaboration sounds good in theory, but sustaining it over time is usually much more difficult (Sridharan & Gillespie, 2004).

Central issues of information sharing include who should have access to the information, how access should be supported and how the information will be used. These questions are technical, legal and political in nature. The technical aspects will depend upon the type of information systems maintained by each agency. In an integrated system, each participating agency would own its own data, but would share critical information with other agencies in one of several ways that might include sophisticated methods such as web-based technologies to access agency information, remote-access capabilities or other processes to transfer data from one agency to another.

Although fully integrated systems where all participating agencies have the technological capacity and organizational support to effectively collect, manage and share information for reentry functions do not currently exist, it is not too soon to address the issues that may affect their development and contemplate interim information-sharing solutions. These may not be the most technologically advanced options, but nonetheless promote the process of information sharing. For example, the establishment of information sharing protocols must take place against a backdrop of legal and political considerations. Federal and state legal restrictions govern the sharing and use of information for those involved in the criminal justice system. The intent of this legislation is to protect the privacy of individuals (see Snavelly et al., in press).

The political culture of information sharing among criminal justice agencies is not a popular topic for discussion among proponents of collaboration and information sharing because criminal justice agencies notoriously resist cooperative efforts. In their recent report, Byrne et al. (2001) emphasize leadership as one of three essential characteristics of a successful reentry program. They argue that there must be strong leadership within the organization and within the partnership. The leader(s) should serve as project director and should have the ability and authority to develop a programmatic strategy that transcends the boundaries of traditional organizations.

Performance Measurement and Evaluation Opportunities

The other two characteristics Byrne et al. identify as necessary for a successful reentry program are partnership and ownership. These characteristics relate directly to the third challenge of using IT for reentry, which is the establishment of performance measures. Indeed, strong leadership will depend on being informed about the progress of individuals as well as participating agencies in the collaboration. Informing this process should be performance measures that can be used for

decision-making. Partnerships can be created and strengthened with a collaborative approach to creating performance measures and determining how information from their agency will be shared, with whom and for what purposes.

All stakeholders, including community groups and victims, can partake in the process of determining desired outcomes, selecting meaningful outcome indicators, and developing data collection procedures. Wright (2003) refers to this type of collaboration across agencies as performance partnerships. This process can be used to determine responsibilities, ownership, and accountability for program planning and evaluation. The challenges would be the establishment of standards for determining individual and agency success (i.e., who gets to decide, what data should be collected, how performance measures should be calculated). Other issues include the development of informationsharing procedures.

The impact of reentry initiatives on the community will eventually be an important consideration as the politics of crime control come once again to focus on "what works" in community corrections. The success of agency collaborations along with their individual and collective roles in successfully reintegrating offenders will be judged by the evidence that demonstrates success or failure of this model. For comprehensive initiatives like reentry, program evaluation should measure indicators of success or failure across individual, program and community levels. Moreover, process evaluations are necessary to understand how the reentry process operates, if it works, and how it can be improved.

Information technology can support both process and outcome evaluations at individual, program and community levels. Performance measures that can be generated with the use of IT will help to promote accountability because they can be used to determine if public resources are being spent wisely (Wright, 2003). This is especially important in light of recent studies showing that the criminal justice system expenditures were high in communities with high rates of incarceration (Cadora, 2003). Moreover, the use of performance measures is consistent with the trend toward using evidence-based research to determine best practices in corrections (Sherman et al. 1998).

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IT Resources and Support for Reentry

This article has discussed the role that information technology can play in reentry programs. A growing network of IT support resources, designed to help those interested in building IT capacity, is available to the criminal justice community. During the past few decades, the financial resources devoted to IT development in criminal justice have been substantial (Davis & Jackson, in press). Many agencies have taken on the challenge of building IT capacity and have shared their experiences and lessons learned with the criminal justice community.

Such sharing has taken different forms. Agencies such as the National Law Enforcement Corrections Technology Center (NLECTC), sponsored by the National Institute of Justice (NIJ), have been created to provide technical support for technology development. IT acquisition and implementation guides have been published and made available through a technology publications archive supported by NIJ. Forums for discussing and sharing IT experiences across agencies have been organized. Courses that emphasize IT are being offered in criminal justice programs at colleges and universities. All of these support a growing commitment in the field to building IT capacity in innovative and useful ways that can be incorporated into reentry programs.

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Conclusion

Information technology will continue to advance the ability of criminal justice agencies to collect, manage and share information. If the necessary commitment and investments are made, then the efforts to build decisionmaking capacity into the reentry process at the individual,

agency, and community levels will be greatly enhanced. Accountability and performance measurement are becoming central to policy choices. In such a time, the ability to turn information into knowledge about the successes and failures of the criminal justice system will eventually be required for continued public confidence and investment in community based programming.

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Table 1

Information Technology and Decision Support for Reentry Initiatives

Goals	Objectives	Information Needs	IT Support	Performance Measures
Individual readiness for prison release	Treatment	Program specific progress & Classification	Prison-based RMS	Individual and program-based performance indicators (i.e., attendance, completion)
	Surveillance	Incident reports	Incident reporting system	Rule violations
Individual success in the community	Treatment	Program specific progress & Classification	Community Corrections RMS	Individual and program based performance indicators (i.e., attendance, completion)
		Program Inventory	Computerized phone and other service directories GIS software	Needs/Availability assessment of services for individuals and communities
	Supervision	Condition Compliance	Community Corrections RMS	Violation types/sanctions
	Surveillance	Monitoring capabilities	Electronic tracking devices (EM, GPS)	Violations of space/mobility restrictions
Community Safety	Control	Offender profiles	Local Police RMS Biometric systems (AFIS) Criminal History Systems	Arrests/incidents involving offenders
	Community support	Community based information	GIS software Statistical software	Community crime rates, Social capital indicators

Simpson, D., Wexler, H. & Inciardi, J. (1999). The Introduction. *The Prison Journal*, 79(4): 381-383.

Taxman, F., & Bouffard, J. (2000). The Importance of System Issues in Improving Offender Outcomes: Critical Elements of Treatment Integrity. *Justice Research & Policy* 2(2): 9-30.

Taxman, F., Young, D. & Byrne, J. (2004). "Transforming Offender Reentry into Public Safety: Lessons from OJP's Reentry Partnership Initiative." *Justice Policy and Research* 5(2):101-128.

Taxman, F., Young, D., Byrne, J. M., Holsinger, A. & Anspach, D. (2003). *From Prison Safety to Public Safety: Innovations in Offender Reentry*. Washington, DC: National Institute of Justice.

Taxman, F., Young, D. & Byrne, J. M. (2003). *Offender's Views of Reentry: Implications for Processes, Programs, and Services*. Washington, DC: National Institute of Justice.

Taxman, F., Bello, M. & Shepardson, E. *Tools of the Trade*. Forthcoming publication, National Institute of Corrections.

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The Emerging Role of Information Technology in Prison Reentry Initiatives

Byrne, James M. & Hummer, Don (this volume). The Role of the Police in Reentry Partnership Initiatives.

Byrne, James M., Taxman, Faye S. & Young, Douglas (2001). *Emerging Roles and Responsibilities in the Reentry Partnership Initiative: New Ways of Doing Business*. Washington, D.C. National Institute of Justice.

Cadora, Eric. (2003). Criminal Justice and Health and Human services: An Exploration of Overlapping Needs, Resources and Interests in Brooklyn Neighborhoods, pp. 285-312. In Travis, Jeremy and Waul, Michelle, eds. *Prisoners Once Removed*. Washington DC: Urban Institute Press.

Clear, Todd R., Rose, Dina R., Waring, Elin, & Scully, Kristen. (2003). "Coercive Mobility and Crime: A Preliminary Examination of Concentrated Incarceration and Social Disorganization." *Justice Quarterly* 20 (1): 33-64.

Crime Mapping Research Center. (1999). *National Institute Justice Mapping in Corrections Resource Group Meeting*. New York.

Davis, Lois & Jackson, Brian (in press). IT Acquisition and Implementation in Criminal Justice Agencies. In Pattavina, April, ed. *Information Technology and the Criminal Justice System*. Thousand Oaks, CA: Sage Publications.

Hardyman, Patricia L., Austin, James, & Peyton, Johnette (2004). *Prisoner Intake Systems: Assessing Needs and Classifying Prisoners*. Washington, DC: National Institute of Corrections.

Harris, Richard, Huenke, Charles & O'Connell, John P. (1998). Using Mapping to Increase Released Offenders' Access to Services. *Crime Mapping Case Studies: Successes in the Field*, 1:61-68. Washington, D.C: Police Executive Research Forum.

Kingsley, Thomas G. & Petit, Kathryn L.S. (2000). Getting to Know Neighborhoods. *National Institute of Justice Journal*, 10-17.

Manning, Peter K. (in press). Environment, Technology and Organizational Change: Notes From the Police World. In Pattavina, April, Ed. *Information Technology and the Criminal Justice System*. Thousand Oaks, CA: Sage Publications.

Pattavina, April, Pierce, Glenn & Saiz, Alan (2002). Urban Neighborhood Information Systems: Crime Prevention and Control Applications. *Journal of Urban Technology*, 9 (2): 376-56.

Petersilia, Joan (this volume). What Works in Prisoner Reentry? Reviewing and Questioning the Evidence.

Petersilia, J. (2001). Prisoner Reentry: Public Safety and Reintegration Challenges. *The Prison Journal* 81(3): 360-375.

Rose, Dina R. & Clear, Todd R. (2003). "Incarceration, Reentry and Social Capital: Social Networks in the Balance, pp 313-324. In Travis, Jeremy and Waul, Michelle, eds. *Prisoners Once Removed*. Washington, DC: Urban Institute Press.

Snavely, Kathleen, Taxman, Faye S. & Gordon, Stuart (in press). Offender-Based Information Sharing: Using a Consent Driven System to Promote Integrated Service Delivery. In Pattavina, April, Ed. *Information Technology and the Criminal Justice System*. CA: Sage Publications.

Sherman, Lawrence, W., Gottfredson, Denise L., MacKenzie, Doris L., Eck, John, Reuter, P. & Bushway, S.D. (1998). *Preventing Crime: What Works, What Doesn't and What's Promising*. Washington, DC.: National Institute of Justice.

Sridharan, Sanjeev & Gillespie, David (2004). Sustaining Problem-Solving Capacity in Collaborative Networks. *Criminology and Public Policy* 3 (2): 259-264.

Taxman, Faye S. & Sherman, Stephan (1998). Seamless System of Care: Using Automation to Improve Service Delivery and Outcomes of Offenders in Treatment, pp. 167-192. In Moriarty, Laura and Carter, David, eds. *Criminal Justice Technology in the 21st Century*. Springfield, IL: Charles C. Thomas.

Travis, Jeremy, Solomon, Amy L. & Waul, Michelle (2001). *From Prison to Home: The Dimensions and Consequences of Prisoner Reentry*. Washington DC: Urban Institute.

Urban Institute (2003). Press Release, April 15. Washington DC.

Wright, Kevin. 2003. *Defining and Measuring Correctional Performance*. Middletown Connecticut: Association of State Correctional Administrators.

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The Effects of Serious Mental Illness on Offender Reentry

Abram, K. M., & Teplin, L. A. (1991). "Cooccurring Disorders among Mentally Ill Jail Detainees." *American Psychologist* 46: 1036-1045.

Abramson, M. F. (1972). "The Criminalizing of Mentally Disordered Behavior: Possible Side-effects of a New Mental Health Law." *Hospital and Community Psychiatry* 23: 101-107.

Beck, A.J. (2001). *Mental Health Treatment in State Prisons, 2000*. Washington, DC: Bureau of Justice Statistics.

Beck, A.J. (2000). *Prisoners in 1999*. Washington, DC: Bureau of Statistics.

Bemus, B. J. (1993). *Implementation of a Case Management System in the Washington State Misdemeanor Courts: An Example of Cooperation and Guide for the Future*. Unpublished Manuscript.

Bond, G., Drake, R., Mueser, K., T., & Latimer, E. (2001). "Assertive Community Treatment: An Update of Randomized Trials." *Psychiatric Services* 46: 669-675.

Boone, H. B. (1995). "Mental Illness in Probation and Parole Populations: Results from a