

CIRCLE — A COMPREHENSIVE REGIONAL CRIMINAL JUSTICE INFORMATION SYSTEM

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BACKGROUND:

Project CIRCLE is unusual in at least two respects; first, in that it occurred at all, and second, in its unusual design approach. CIRCLE began as a concept — a “Concept of Information Retrieval for Crime and Law Enforcement” — that had uneven support in the Criminal Justice Community in Montgomery County, Ohio. However, by the time that the Westinghouse Justice Institute (WJI) began work on the design of CIRCLE last October, it found both total community interest and total community commitment to participate in the CIRCLE design effort. It is, in our experience, quite extraordinary to see police departments, prosecutor’s offices, courts, and corrections agencies in a large geographic area like Montgomery County, Ohio, form a working consortium to create a true Regional Criminal Justice Information System.*

The reasons for the widespread support among CJ agencies, both at the start of the project and throughout the design effort, were many and related to the purposes of the CJ community and the Miami Valley Council of Governments (MVCOG), the contracting authority in developing a CJIS. They were:

1. MVCOG recognized that CJ agencies did not have an effective information system to meet their information needs.
2. Each agency recognized deficiencies in the availability, accessibility, accuracy, and completeness of its own information and of other agencies’ information useful to each agency.
3. Each agency recognized that its current information system impaired the making of sound management decisions and of long-range planning decisions.
4. MVCOG and each agency recognized that a CJIS would provide an effective tool to reduce crime, to apprehend offenders, to introduce speed and efficiency in law enforcement and adjudication, and to improve rehabilitation programs.

* Agencies participating in Project CIRCLE are listed as Appendix 1 to this paper.

MVCOG commissioned WJI to analyze the needs of all CJ agencies and to design a CJIS that would satisfy, at the minimum, all priority needs to all Montgomery County CJ agencies. It was not to be a law enforcement information system parading as a CJIS, but a true CJIS meeting the information requirements of law enforcement, prosecutive, judicial, correctional, and related agencies. Moreover, the emphasis was placed on community determined information priorities (focusing on common-need information), but avoiding duplication of data which would be effectively provided by other systems, such as NCIC, SEARCH, LEADS, LEIN. This balance of purpose promoted widespread agency participation and enthusiasm in the design of CIRCLE.

The design approach was unusual because of the methodology imposed by the Miami Valley Council of Governments on WJI. The project was to proceed over 9 months in 3 phases: I Conceptual Design of an Ideal System; II Definition of Optional Systems, and III System Design, Specifications, and Implementation Plans. MVCOG knew at the outset that the CJ Agencies of Montgomery County could not afford to invest immediately in the best (ideal), technologically feasible CJIS satisfying all needs of law enforcement, prosecution, defense, courts, corrections, and related agencies. It knew it would have to settle, because of financial constraints, for a CJIS advanced over its existing system but not as advanced as the ideal system. However, MVCOG wanted WJI first to undertake, in Phase I, to design the ideal system for the region so that later, in choosing the financially feasible CJIS for implementation, MVCOG would know not only how much better was the system selected for implementation than its existing information system, but also how inferior it was (in terms of information needs satisfied) to the ideal system. This methodology afforded the community an unusual two-dimensional basis for two key decisions:

1. the selection of the feasible CJIS option, cognizant of what the community gained (more than its current information system) and gave-up (less than the ideal information system), and
2. the development of a long term information system plan, in

terms of a plan to achieve interim information systems, logically and cost-effectively building toward the ultimate system.

THE FUNCTIONAL OBJECTIVES OF PROJECT CIRCLE

The CIRCLE design approach had three phases, each with a unique objective. In the first phase (to design conceptually the ideal system) the objective was to design an ideal CJIS which (1) satisfied all information needs of the specific CJ community (e.g., tailored the needs to be satisfied by the CJIS according to the Montgomery County decision of kind of needs to be satisfied, number of needs, and the priority of needs), (2) was designed as if money were no object, and (3) was an attainable system within the state-of-the-art out to the year 1975. In the second phase, (to design optional systems), the objective was to define optional designs of progressively less cost and consequently less effectiveness than the ideal system, with the community selecting the highest option that it could afford. In the final phase involving system design, specification, and implementation plan, for the particular optional system chosen by MVCOG as financially feasible), the objective was expansion of the phase II prior work on the chosen optional system in sufficient design, implementation plan, and cost detail for direct implementation.

In phase II, four optional systems (designated A, B, C, and D) were developed. Of the 53 information needs defined by the community to be satisfied by the ideal system, optional system D satisfied 43 of them or 81% of the total needs defined.* Optional systems C, B, and A satisfied fewer needs in descending order. At the conclusion of phase II, the community decided that optional system D would ultimately satisfy the needs of the CJ community in Montgomery County. MVCOG instructed WJI that system D would not be implemented all at once; rather WJI should prepare a phased implementation plan, commencing with optional system A and progressing successively in capability and number of users serviced until the optional system D level is reached. This implementation plan was followed by WJI in phase III, which was concluded in July of this year.

THE CIRCLE SYSTEM

Figure 1, from the phase III final report, is a schematic of the CIRCLE system selected for

* A list of the 53 information needs defined in the ideal system appears as Appendix 2.

implementation, showing the system files and other system interfaces.

The system will have eight subsystems:

- o COMMAND AND CONTROL
- o PERSONS OF INTEREST
- o OFFENSE REPORTING
- o PROPERTY*
- o FINGERPRINT IDENTIFICATION
- o MODUS OPERANDI
- o SUBJECT-IN-PROCESS - ACTIVE CASES
- o SUBJECT-IN-PROCESS - INACTIVE CASES

The operations processes of each subsystem follow, with the processes described in terse but self-explanatory terms.

COMMAND AND CONTROL PROCESSES:

- o Incident Entry
- o Location Verification
- o Unit Identification/Status Change
- o Evaluation of Potentially Dangerous Situations
- o Incident Alert Timing
- o Incident Logging
- o Incident Inquiry

PERSONS OF INTEREST PROCESSES:

- o Name and Case Information Entry
- o Case Summary Response on Name Inquiry
- o Field Interview Entry from Street Investigations by Police
- o Originating Agency Notification of Contact or Field Interview
- o Correlation of Field Interview Descriptions with Descriptions of Perpetrators of Crime Occurring in Immediate Area

OFFENSE REPORTING PROCESSES:

- o Offense Entry
- o Crime Pattern Analysis
- o Crime Density Analysis
- o Uniform Crime Reporting/FBI
- o Special Crime Reports
- o Crime/Socio-Economic Factors Analysis

FINGERPRINT IDENTIFICATION PROCESSES:

- o Coded Fingerprint Entry
- o Identification Verification for Arrested Persons
- o Suspect Identification from Latent Fingerprint Impressions Left at Crime Scene

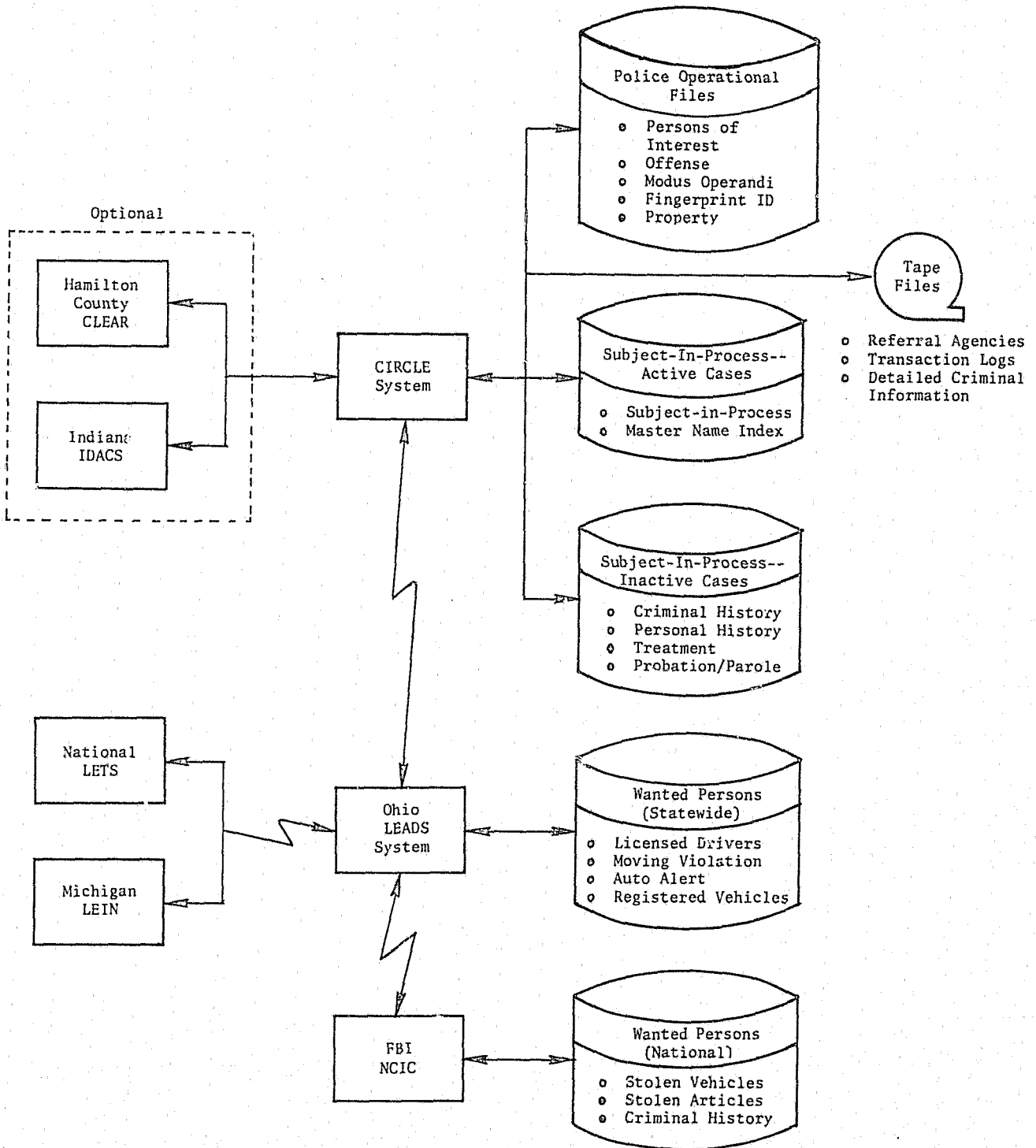
MODUS OPERANDI PROCESSES:

- o Modus Operandi Information Entered From Crime Reports
- o Physical Description Information Entered From Arrest Reports
- o New Crime Reports Checked Against File For Pattern Definition or Suspect Description Matching
- o All unsolved Crimes Apparently Committed By Same Unknown Suspect Identified and Presented to Police for Deterrent Actions

SUBJECT-IN-PROCESS ACTIVE CASES PROCESSES:

- o Arrest Entry
- o Jail Inventory
- o Case Review
- o Case Priority Ranking
- o Case Scheduling
- o Case Tracking
- o Case Manpower/Evaluation
- o Assignment Management
- o Process Alert Timing
- o Strategy Analysis

* The Property Subsystem is not planned to be implemented until the Ohio State information system plan is known, and then it will only augment, not duplicate the State plan.



CIRCLE System Files and Interfaces

Figure 1.

SUBJECT-IN-PROCESS INACTIVE CASES PROCESSES:

- o Court Disposition Entry
- o Record Transmitted to State For Entry Into State Criminal History Files
- o Previous Dispositions and Treatment Information Identified to Probation or Correction Agency Currently Involved
- o Treatment Agency Activity and Statistics Reports Generated
- o Offender Personal and Environment History Analyzed and Training or Treatment Needs Identified to Agency Currently Involved
- o Success of Treatment Programs Evaluated on Mean-Time Recidivism Rates
- o Juvenile and Adult Probation Caseload Projections Made From Monitoring All Changes in Total System Activity

THE BENEFITS OF THE CIRCLE SYSTEM

Both the community and its contractor, WJI, had foremost in mind during the CIRCLE project the goal of maximizing the benefits from a CIRCLE Regional Criminal Justice Information System. In this section, some of the most significant benefits of the system are outlined along with how the CIRCLE CJIS will achieve those benefits:

BENEFITS	HOW ACHIEVED
Improved Crime Prevention Efforts	<ul style="list-style-type: none"> o Multi-Jurisdictional Crime Pattern Analyses o Computerized Projection of Developing Crime Trends and Hazards o Analyses to Determine First-Offender Profiles o Interaction with Social Service and Social Planning Agencies to Identify and Reduce Causative Factors of Crime
Increased Officer Safety	<ul style="list-style-type: none"> o Immediate Access to Vital Information o Identification of Potentially Dangerous Situations and Locations Prior to Dispatch
Improved Allocation of Resources	<ul style="list-style-type: none"> o Variable Police Field Force Deployment in Response to Current Conditions o Analyses of Work Load Requirements versus Resources Allocated in all Agencies
Increased Efficiency In Criminal Investigations	<ul style="list-style-type: none"> o Additional Aids to Investigations Through Modus Operandi, Personal Appearance and Fingerprint Identification Functions o Area-wide System Entries on Contacts or Interrogations of Crime Suspects o Timely Notification From Prosecutor's Office to Police Agencies When Continuing Investigation is No Longer Required
Improved Efficiency of Case Handling in County Prosecutor's Office	<ul style="list-style-type: none"> o Case Prioritizing Procedures o Assistant Prosecutor Effectiveness Evaluations o Improved Scheduling Through Notification of Possible Attorney or Witness Schedule Conflicts o Ability for Rapid Notifications Of All Principals and Witnesses For Trial Date Assignments or Changes o Immediate Notification of Changes in Case Status o Optimum Use of Time of Assistant Prosecutors Through Work Load Balancing and Priority Assignments
Protection of Rights of Accused	<ul style="list-style-type: none"> o Selective Screening of Criminal History and Other Personal Information Obtained from Local, State and/or Federal Systems so that only Data Pertinent to Current Case is Released to Police and Investigative Officers

Information Security

Reduction in Redundancy of Information Collection

Coordination of Multi-Level Agency Efforts

Improved Rehabilitation Potential for Convicted Offenders

- o Restrictions Against Release of Information on Non-conviction Arrests
- o Time-Triggered Alert Notifications to Assure Court Processing Within Established Guidelines
- o Local Guidelines Established For Purging of Arrest-Related Information
- o Interagency Agreements on Information Security and "Need-to-know" Limitations on Sensitive Information
- o Multi-level Safeguards Against Release of Unauthorized Information
- o "Cut-Off" Procedures for Use Against Those Agencies Found To Be Violating Security Regulations
- o Centralized Repository for Critical and Summary Information; and Index for Location of Previously Collected Detail Information
- o Cooperative Procedures for Information Sharing
- o Better Understanding of Area-wide and System-Wide Problems
- o Timely Information on How Changes in One Level of System Will Affect Other Levels
- o Better Problem Definitions Through System-wide Information Sharing
- o Time-savings for Investigative and Analysis Personnel Through Changes in Case Status
- o Indices to all Public and Social Agencies that have had Prior Contact With Individual - For Purposes of Determining Prior Assistance or Treatment Given
- o Ability for Correctional Agencies to Better Evaluate Needs of Individual in Education, Job Training, etc.
- o Recidivism Documentation for Evaluation of Prior Rehabilitative Methods

CONCLUSION

The Westinghouse Justice Institute concluded its contract activities with MVCOC on Project CIRCLE in July, 1972. Since that time it has been working with MVCOC, Captain Tobias, Project Officer for MVCOC, and community representatives to help facilitate an implementation program for CIRCLE. There are several obstacles to the implementation of CIRCLE, being addressed at the present time.

The planned subsystem implementation calls for, in Phase A, the implementation of Offense Reporting, Subject-in-Process - Active Cases, and Command and Control, taking 12 months. The second phase, Phase B, calls for implementation of the remaining subsystems: Persons of Interest, Fingerprint Identification, Modus Operandi, and Subject-in-Process - Inactive Cases taking an additional 6 months. The local Regional Planning Unit has placed CIRCLE implementation high on its priority list and has requested LEAA block grant funds from the Ohio State Planning Agency. The city of Dayton has asked for Pilot Cities' funding for CIRCLE implementation. However, the LEAA

Regional Office appears to have reservations about the appropriateness of using Pilot Cities' demonstration funds for such implementation. Both the community and its contractor, WJI, feel that implementation of a Regional CJIS, supported by the Region, would be an excellent demonstration project befitting Pilot Cities' funding.

Other significant problems being addressed are: who should operate the CIRCLE system, and how will its operating costs be supported over time? MVCOG is confronting the basic issues of implementing a Regional system. Should it be operated by the largest city in the Region (Dayton), or by the county, or by the city and county jointly? MVCOG is also exploring economic options to determine a feasible mechanism for absorbing operating costs in a way that is proportionately fair to the many and variously-sized communities who would participate in the CIRCLE system. These problems illustrate a typical set of serious obstacles to implementing advanced and innovative information systems on a regional basis.

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APPENDIX 1

Some of the agencies participating in Project CIRCLE include:

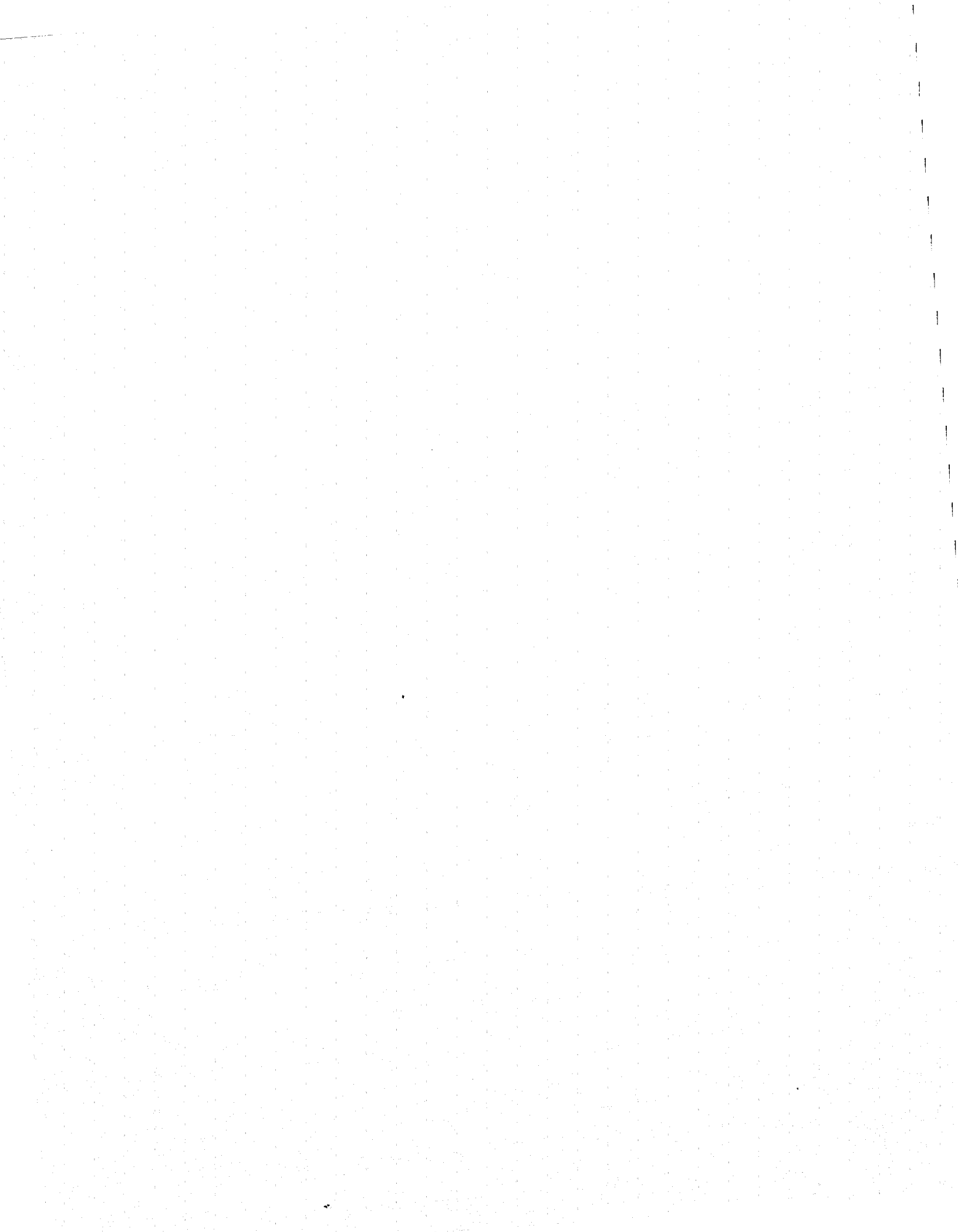
- o Police:
 - Montgomery County Sheriff
 - Dayton Police Department
 - Some 20 Municipal Police Departments
- o Prosecutorial Units In:
 - Dayton
 - Oakwood
 - Miamisburg
 - Kettering
 - Vandalia
 - Montgomery County
- o Courts:
 - Montgomery County Common Pleas
 - Kettering Municipal

- Dayton Municipal
- Montgomery County Juvenile
- Second District Court of Appeals
- Miamisburg Municipal
- Oakwood Municipal
- Montgomery County District
- Vandalia Municipal
- o Correction Units:
 - Montgomery County Jail
 - Montgomery County Juvenile Rehabilitation Facility
 - Montgomery County Juvenile Center
 - Dayton Municipal Court Probation Department
 - Montgomery County Court of Common Pleas Probation Department

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APPENDIX 2

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| 1. Accident-Traffic Reporting | 27. Jury Selection |
| 2. Agency Activity Statistics | 28. Law Retrieval |
| 3. Bond/Bail | 29. Manpower Utilization |
| 4. Booking Information | 30. Microfilming |
| 5. Car Terminals | 31. Missing Persons |
| 6. Case Monitoring | 32. Modus Operandi |
| 7. Case Ranking (Priority) | 33. Motor Vehicle Registration and Operators License |
| 8. Case Scheduling | 34. Notification of Contact with police |
| 9. Case Status | 35. Offense Information |
| 10. Computer-Aided Dispatching | 36. Personal History |
| 11. Court Disposition | 37. Persons of Interest |
| 12. Criminal History Summary | 38. Photo Classification |
| 13. Criminal History Detail | 39. Planning and Research |
| 14. Dangerous Addresses | 40. Policy Notification |
| 15. Dangerous Persons | 41. Prisoner Release Information |
| 16. Detention Status | 42. Probationer/Parolee Status |
| 17. Diagnostic Evaluation | 43. Prosecution Uniformity |
| 18. Documentation of Treatment Decision | 44. Recidivism Documentation |
| 19. Document Flow | 45. Resource Allocation |
| 20. Evidence/Exhibits | 47. Standardized Case Referencing |
| 21. Fingerprint Identification | 48. Stolen Property (including stolen cars) |
| 22. Fleet Accounting | 49. Tow-In and Parking |
| 23. Gun Registration | 50. Traffic Violations |
| 24. Investigation Information | 51. Treatment Decision Modeling |
| 25. Jail Inventory | 52. Wanted/Warrants Information |
| 26. Jurisdictional Boundaries | 53. Witness Notification |



END