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CITY OF PHOENIX MUNICIPAL COURT CLERICAL WORKFLOW ANALYSIS: EXECUTIVE SUMMARY

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June 9, 1982



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ACKNOWLEDGEMENTS

The National Center for State Courts formally or informally interviewed most of the staff of the Phoenix Municipal Court and a dozen people in other City Departments regarding the Court's operations. Individual recognition of all these people is not possible in this brief space, but we extend our deep appreciation for the substantial time and cooperation given by each. The study could not have been completed without their thoughtful guidance.

Karrie Lawlor, Systems and Procedures Analyst for the Court, provided invaluable logistical and scheduling support. Without her help the project staff would not have been able to make effective use of its time in Phoenix. She also generously and graciously assisted in obtaining information not readily available in existing data sources.

Michael Havemann, Court Administrator, monitored our work throughout the project, but also willingly shared his experience and perceptions in an effort to produce a product of value to the Court. His assistance and encouragement to investigate thoroughly all aspects of the Court's clerical operations enhanced whatever value the final report may have.

As needed, National Center project staff can call upon for assistance other Center staff with particular expertise. The staff of this project was materially assisted by Mary E. Elsner, staff associate in the headquarters office in Williamsburg, Virginia, who provided the statistical analysis and caseload projections reflected in Chapter V of this report.

The administrators and staffs of several metropolitan courts across the country (see Chapter VI) took substantial time and effort to provide thorough answers to our questionnaire (see Appendix A). We thank them for their willingness to assist in a study of another court.

The assistance of Rochelle Rodgers in typing and editing the numerous drafts and revisions of this report was invaluable.

The observations and conclusions, and hence any errors of omission or judgment, belong solely to the project team. If this report assists in improving clerical operations within the Municipal Court, however, much of the credit will belong to the numerous personnel within and without the Court in Phoenix who gave so graciously of their time and expertise and who will be responsible for successful implementation of the recommendations.

National Center for State Courts

I. INTRODUCTION

A. The Court and its Environment

The Municipal Court of the City of Phoenix is a court of limited jurisdiction handling traffic violations, parking violations not voluntarily paid, misdemeanors, and other ordinance violations of the City of Phoenix. It operates in three locations: 1) a converted garage on North 4th Avenue, which is the site of arraignments and most of the noncourtroom-related clerical work; 2) 125 West Washington Street, the former Superior Court courthouse presently shared with three County Justices of the Peace, which is the locale of the trial courtrooms, a few clerical operations, probation services, and the alcohol diversion program for those accused of driving while intoxicated; and 3) the Maricopa County Jail, where arraignments are held for in-custody defendants daily.¹

The Court has 14 judges, a chief presiding judge and 13 trial judges. The chief presiding judge normally does not have cases assigned to him for disposition. In fiscal 1980-1981, the Court's total caseload was about 376,000 cases, among which were about 291,000 traffic violations and 24,000 criminal complaints.²

Over the past four fiscal years (through 1980-81), the caseload of the Court increased 53 percent, with the greatest percentage increase being in failure-to-appear complaints (116 percent), but with traffic violations representing over 72,000 additional cases. In the same

¹ There also are five part-time employees accepting bail at Police headquarters at 620 West Washington Street.

² The National Center is using the Phoenix Police Department's figures for traffic violations because those figures are more reliable over the four-year span for which the National Center obtained data. The Center's estimates are used for the other case types (see Chapter VI, below).

four-year period, the number of judges on the court increased by one, from 14 to 15,³ and the clerical and other support staff (excluding probation and PACT) grew from 74 to 121, a 64 percent increase.

The Court has 2,783 filings for each of its clerical employees, including probation staff. A full comparison of the Phoenix Municipal Court's caseload and staffing with those of generally comparable limited jurisdiction courts in other states is provided in Chapter V, below. By way of preview, the filings per staff member in these seven other courts ranged from 2,462 to 1,074. The Supreme Court of Colorado used a standard of 1,181 filings per full-time equivalent position in its courts of limited jurisdiction when it submitted the fiscal 1980 budget for that state-funded system.⁴ The National Center recently proposed a benchmark of 1,281 filings per full-time employee for a court of limited jurisdiction in Florida.⁵ There is no court in Arizona comparable to Phoenix's Municipal Court, the Phoenix Court having over three times as many filings as the next-biggest municipal court. But looking only at caseload per staff member, the Phoenix Municipal Court compares fairly well to other Arizona courts. In the next four largest municipal courts in Arizona (measured by total filings) the filings per full-time position reported in the Supreme Court's 1980 annual report on caseload and personnel are: 2,981, 3,271, 3,895, and 8,128.⁶

³ The following year (1981-1982) the number of judges returned to the current figure of 14.

⁴ H. Lawson and B. Gletne, Workload Measures in the Court (National Center for State Courts, Williamsburg, VA., 1980), pp. 76-77.

⁵ Southern Regional Office, National Center for State Courts, A Management Analysis of the Broward County Clerk's Office, 17th Judicial Circuit of Florida, Ft. Lauderdale, Florida (National Center for State Courts, Atlanta, GA., 1982), p. 15.

⁶ There is no audit by the Supreme Court of the filing data reported by the trial courts so there may be differences in the way cases are counted that affect these numbers.

The Phoenix Municipal Court faces several problems as a result of or beyond its large caseload. The most serious problems compound the volume problem: There are substantial workflow and paperflow problems in the Court. The workflow is divided into a number of small, relatively isolated work units. Case papers must flow to and among these units, which results in a disturbingly high percentage of lost files and/or delayed completion of assigned tasks. The data processing system is inadequate for the Court's needs, which exacerbates problems caused by high volume.

Most metropolitan limited jurisdiction courts are high-volume, high-pressure environments that drain staff's energy and, sometimes, commitment. The Phoenix Municipal Court is facing a similar problem, with significant morale problems among staff. The morale problems lead to a third problem -- that of staff turnover, particularly among entry-level staff who deal directly with the public at the front counter.

One aspect of the role of the chief presiding judge affects the clerical operations of the Court. Judges are appointed for four-year terms, but the position of chief presiding judge has only a one-year term. Even though the last three chief presiding judges have been appointed for two consecutive terms, each new presiding judge has his/her own agenda and methods of operating, which often result in changes in clerical operations. These constant changes and the threat of continuing changes each year or two contributes to the morale problems of the staff.

The morale problems mentioned above are compounded by the external environment. There are tensions between the Court and the City Council that appear to stem from each body's perceptions of the other. For instance, it is reported that some in city government think the Court has not been well managed. On the Court's side, a number of people expressed

the belief that members of the City Council and city administrators do not respect the Court and its staff. Some in the Court also see the City Council as having assigned Court-related projects a low priority until the last two years, when several Court projects -- most noticably the computerized information system -- have received a higher priority.

The perceptions on both sides may or may not be valid, but they seem to have contributed to communication problems between the Court and the Council and have had a discernable effect on morale within the Court. It would be constructive for the Court to explore ways to reduce these tensions and dispel undesirable perceptions.

There is a further gloss on this environment. The Legislature this year enacted significant changes in the law regarding people driving under the influence of alcohol or drugs. In addition, Class 6 felonies will be filed in the Court starting July 1, 1982. The Court estimates an additional 4,000 cases a year as a result. These changes may have a significant impact both on the size of the Court's caseload and the way in which the drunk driving cases are handled by the prosecutor and defendants. Further, serious consideration is being given at the state level to administrative adjudication of traffic cases, probably on a local-option basis. If such legislation were to pass in future years, it is anticipated that the City of Phoenix would adopt the administrative adjudication model, thus removing 80 percent of the Court's caseload. Finally, Arizona State University undertook for the Legislature a major study of possible ways to consolidate the municipal and justice of the peace courts of the State into single, county-wide limited jurisdiction courts. The recommendations of this study have been modified by a committee of the State Bar for the purpose of developing a legislative proposal that includes local option to consolidate the functions of city

courts into the superior court of a county. If this or an alternative become law, there would be an obvious impact on the operations of the Municipal Court.

The National Center's study of the Court's clerical workflow was undertaken in the context of and influenced by these environmental and operating factors. Its recommendations are fashioned in light of this environment, as well.

B. Organization of This Report

The principle emphasis of the balance of this report is on changes the National Center believes best respond to the Court's present and future needs. Chief among these is a total restructuring of the clerical work force and paperflow into relatively small teams of staff responsible for the processing of particular types of cases from filing through disposition (excluding the clerical and support staff working directly in support of the trial judges). The National Center recommends that this case-team-management approach be phased in over the next twelve months. This proposal is outlined more fully in the following section.

The Court has significant problems with its computerized information system. Those problems and the National Center's recommendations are in the third section of this summary.

This summary concludes with a listing of a number of other recommendations regarding other aspects of clerical workflow. Only the recommendations are listed; supporting arguments are contained in the full report. The full report also provides a projection of the Court's caseload, by key case types, over the next five years, a more complete discussion of data from comparable courts in other states, and a brief discussion of the degree to which the changes suggested by the National

Center would be affected by consolidation of all operations at 125 West Washington Street, by administrative adjudication of traffic cases, and by consolidation of limited jurisdiction courts.

The reader with an interest in further detail on any of the matters mentioned in this Executive Summary is urged to review the full report.

II. TEAM MANAGEMENT

A. The Concept

Team management is a relatively new concept for courts. It received its most widely cited application on the assembly line of Volvo Automobile Company in Sweden. Groups of employees, each of whom previously had been responsible for a small segment of work along the assembly line, were assigned responsibility for major portions of the final automobile. The concept was successfully adopted by other manufacturers and now has found its way into a few courts.⁷

In courts, teams of staff handle a group of cases from filing to disposition. In both the industrial and court context a reduced number of staff have been needed to handle a given number of cases and employee morale improves substantially. In significant measure it is the improved employee morale and refined workflow that leads to improved productivity, which in turn produces a 20 to 30 percent reduction in the number of employees needed.

Case-team management is more than a group of people working together to complete a task. Its essence is a group of people being responsible for all functional steps necessary to process a case from filing through disposition and closure. A court organized along functional lines may have several people working together to assure that a single function is completed properly, but then that group passes the case to the next group, which completes another small part of the total process before sending the case to a third group. In case-team management, the group performs all steps; a case is passed from one team member to another, but it does not leave the group until it is concluded.

⁷ L. Adams, C. Easterling-Smith, and B. Popp, "Case Management by Teams," State Court Journal (vol. 3, no. 4, Fall 1979), pp. 15, 17.

B. Advantages of Team Management for the Phoenix Municipal Court

There are at least 10 identifiable respects in which team management either would improve present and future operations of the Phoenix Municipal Court or would otherwise be a desirable change.

1. Productivity of existing staff would improve. Case-team management will move the Court from relatively isolated -- albeit inter-dependent-- work units to a small group of people, all of whom understand the entire flow of a case and who know how to move a case through each required step from filing to disposition.
2. Employee morale will improve. Because of limited training, some employees do not know the impact of their work on subsequent sections in the work chain. Neither the importance of what they do nor the adverse impact of a mistake is understood fully. Case-team management will provide this perspective along with a sense of accomplishment when cases flow through the Court as they should.
3. Fewer additional staff will be needed than if the present system were maintained. As explained below, the National Center believes the Court needs additional personnel now. Whether or not it obtains those positions this year, the more-than-50-percent increase in the principal case types projected by the National Center for 1985, plus the addition of Class 6 felonies as of July, indicate that more staff will be needed. The increase will be less if the Court switches to case-team management now than if it maintains its present staff organization.
4. Line staff's critical need for training in all court processes will be addressed. Case-team management requires that staff receive the overview of the system now lacking. Changing to team management will assure that all present staff are fully trained and that existing procedures are reexamined, even by those presently performing those procedures.
5. The problem of lost files will be reduced substantially. Today files may pass through five or more sections and one or more courtrooms. In the case-team system proposed, the file will be either with the case-team or in a courtroom.
6. The staff organization proposed by the National Center conforms to the existing personnel classification system. Often with changes of the magnitude being proposed, reclassifications of staff are needed. In shifting to case-team management, if reclassifications are needed they will be relatively few in number.

7. The impact of caseload increases in particular types of cases or changes in law on staff needs is easier to assess and document. If traffic cases increase, with today's staff organization all sections are affected, although they may not be affected to the same degree. It is difficult to document the full impact of the increase on staff needs and to allocate new FTE positions to the sections most affected. With case-team management the impact is more readily documented and new personnel are more easily assigned to needed areas.
8. The Court will be in a better position to respond if the Legislature and City Council adopt administrative adjudication of traffic cases. If the Court moves to case-team management now, the transition will be complete, and the problems, if any, worked out when it comes time to transfer most of its staff to the new administrative agency. The cost of the new system can be readily documented, which will make the basic policy choice more informed than is possible with today's organization.
9. The Court will demonstrate to the City Council and citizens generally its commitment to improved management. A shift to case-team management would be a clear and appropriate response by the Court to the demands of many citizens for greater economies in the delivery of government services.
10. Team management will not require significant adjustments in the computerized information systems presently used and being planned. The steps in processing a case will not change, only the way in which clerical staff are organized to perform these steps. The computerized information system is designed around the needed steps, not the functional work units.

C. Team Management in the Phoenix Municipal Court

1. Number of Teams and Their Responsibilities

RECOMMENDATION NO. 1

The Court should create 11 teams of staff, allocated among nontraffic and traffic cases. The teams should be responsible for intake processes (front counter, correspondence, document intake), basic bail and bond procedures, and all processes associated with closing a case (terminal entries, orders associated with nonpayment, and fines payments).

The National Center recommends that teams be created to deal with case types. The initial division should be between traffic and nontraffic matters.

In the nontraffic area, the National Center recommends that two teams be responsible for all misdemeanors filed with the Court and that a third, smaller team handle all other nontraffic matters, including juvenile, parking, and any agency matters filed in the Court. For traffic cases, the National Center believes that eight teams are appropriate, one devoted exclusively to major traffic cases, one to cases involving only nonmoving traffic violations, and six teams to handle moving traffic cases and nonmoving violations associated with moving violations.⁸

Each team would be responsible for all noncourtroom-associated work. Work performed by the personnel now in the Front Counter, Correspondence, Document Intake, Post-Court, Finance, and Fines sections, and some of those in the Warrants Section would be assigned to each team. All staff presently providing direct support to the judges (bailiffs, courtroom clerks, courtroom reporting, and the probation staff) would remain outside the team arrangement because the National Center's responsibilities in its contract with the Court specifically excluded matters involving the judges.

Certain tasks would be excluded from a team's responsibilities:

- Records maintenance and storage, including microfilming and records destruction;
- Initial receipt of mail and its distribution to teams;
- Messenger services among buildings;
- Signing checks for bail or bond refunds or for any other purpose;
- Entry and removal of warrant information from the computer;
- Teller terminal operation at the 125 West Washington Street facility (until all staff move to that facility);

⁸ If a nonmoving violation is associated with a major traffic violation or a moving violation with a major violation, the team handling major traffic violations would receive the case.

- Cash management;
- Daily reconciliation of teller terminals and/or cash registers;
and
- Monitoring compliance with legal requirements regarding bond forfeitures.

An organization chart showing the proposed reorganization is attached on the following page.

2. Size of Teams and Caseloads for Each Team

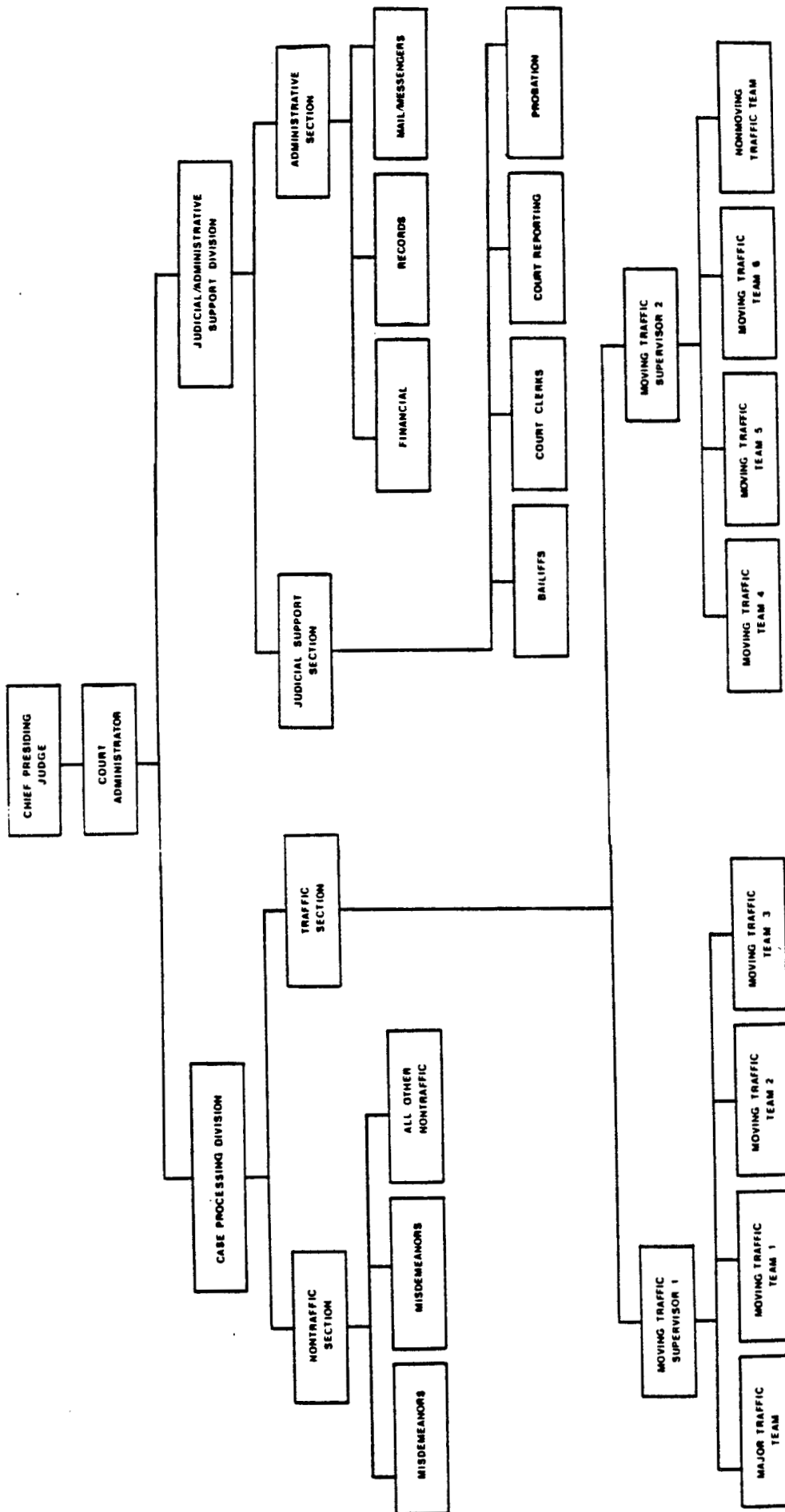
In proposing the number and size of teams, the National Center is guided by two considerations. First, small-group research indicates that the optimum size for interaction within a group is seven or eight. The working conditions of the teams are different, but the National Center believes that teams greater than 10 will not be as efficient as teams of 10 or fewer. At a minimum, it is believed that no team should have fewer than three members.

A second consideration is to recognize workload differences among case types.⁹ It is generally recognized that major traffic offenses and misdemeanor cases involve substantially more clerical time than all other moving violations and that nonmoving violations require the least clerical time. The number and size of teams proposed seeks to reflect these workload relationships.

Before discussing the size of each team, one additional matter must be addressed. The National Center's on-site review of the Court's operation convinced project staff that most of the Court's sections are understaffed. Some procedural inefficiencies exist, but training, revised organization, and new procedures alone will not result in the

⁹ The National Center examined California's 1974 clerical workload study, but the weights developed as a result of that study do not relate to the team approach being proposed here.

FIGURE 1
TEAM MANAGEMENT SYSTEM
PROPOSED ORGANIZATION CHART



Court's handling its workload more efficiently. Even if all of the National Center's recommendations are implemented, more staff will be needed to process the existing and projected workload.

RECOMMENDATION NO. 2

Additional staff should be sought by the Court.

- A. If the team concept is accepted, the Court should request an additional 16 positions from the City Council.
- B. If the team concept is not accepted, the Court should request an additional 20 positions.

The National Center started with the existing staff structure and determined the number it felt appropriately should be added to each section. This analysis was not based on the type of workload analysis that would be performed by a personnel specialist, but is a preliminary estimate based on the National Center's general experience and project staff's observations. The National Center believes that at least 20 additional positions should be sought if the Court does not adopt the team management approach. Five of these additional positions are needed regardless of whether the Court adopts team management because they are for sections unaffected by the team management proposal (Bailiffs, Court Clerks, Records, and Administration). With reference to the remaining 15 positions, productivity is higher in team management systems, so the National Center believes 11 people added to teams would do what 15 can do under the present system. The number and size of teams suggested below reflect this increased staff level.

Table 1 sets forth the number and size of teams for each case type. The number of filings per full-time equivalent team member also is indicated, using the National Center's projections of the Court's 1980-81 filings. Today, the 63 people who would be reassigned to teams average over 4,400 filings each. Under the team system and with the addition of 11 new positions to the teams, the number of filings per team member would range from a low of 1,737 for major traffic offenses up to 8,260 for the team handling cases that only involve nonmoving violations.

It should be noted that the case-team system can be implemented and remains desirable even if the additional positions are not granted by the City Council. It also should be understood, however, that the team management approach cannot by itself overcome the present staffing limitations in the Phoenix Municipal Court.

RECOMMENDATION NO. 3

Cases of the same case type should be allocated among teams alphabetically.

There will be two misdemeanor teams and six moving traffic violations teams. Cases must be allocated among them on some basis. The National Center recommends that the allocation be done alphabetically, based on the defendant's last name.

3. Allocation of Responsibilities Within Teams

The National Center is not able to address each task that a team will have to perform. In Table 2, however, it suggests a division of responsibility among team members for a six-member team handling misdemeanor cases. A similar approach would apply to all other teams, although some specifics will vary with different case types.

TABLE 1
PROPOSED ALLOCATION AND SIZE OF TEAMS
USING THE NATIONAL CENTER FOR STATE COURTS'
ESTIMATES OF 1980-1981 FILINGS

<u>CASETYPE</u>	<u>NO. OF TEAMS</u>	<u>STAFF PER TEAM</u>	<u>FILINGS PER TEAM MEMBER</u>
<u>TRAFFIC</u>			
Major	1	9	1,737
Other moving and associated nonmoving	6	8	4,479
Nonmoving (only)	1	3	8,260
<u>NONTRAFFIC</u>			
Misdemeanors	2	5	2,401
All other	<u>1</u>	<u>4</u>	<u>?</u>
TOTAL	11	74*	3,776*
<u>Present System</u>		63*	4,435

* These totals do not correspond to the totals on page 2 and in Table 6, page 96, because these totals are only for staff affected by team management.

TABLE 2
ALLOCATION OF RESPONSIBILITIES
WITHIN A TEAM
MISDEMEANOR CASES
(6 people)

1. Team Supervisor

- Allocate work to team members
- Coordinate with other teams, especially when alias-name problems arise
- Supervise team's work
- Handle problem cases
- Train staff; keep manuals current

2. Person A

- Front counter
- Teller terminal for front counter (including time payments)
- Charge card processing

3. Person B

- Teller terminal for mail, jail court, trial courts, and zero-dollar rings
- Cover for person A

4. Person C

- Warrant entry and filing
- Schedule PDC's and PCS's, as needed
- Cover for persons B and D, as needed
- Prepare FTA notices and warrants (excluding actual warrant entry and removal)

5. Person D

- Prepare TBR slips for cash/bail redunds
- Bond postings, forfeiture notices, and reinstatements
- Cover for person E, as needed
- Supervise files to assure proper filing and use of out cards
- Prepare and mail OSC notices
- Appeal processing

6. Person E

- Prepare new case files
- Final preparation of files for records
- Trace lost files and documents
- Cover for person C, as needed
- Error corrections
- Summons preparation

4. Implementation Strategy

RECOMMENDATION NO. 4

Case-team management should be tested with misdemeanor cases for four months. If successful, full implementation for all case types should occur 12 months after initial acceptance of the concept.

Case-team management requires a major revision of work assignments and working relationships. Should the Court attempt to implement the concept too quickly, it risks increased staff resistance and it increases the possibility that potential problems will be overlooked during planning, which may reduce the opportunity for successful implementation. The flow of work to and among the teams must be carefully analyzed, substantial training for staff will be required, and reallocation of existing space will be necessary. If implementation is phased in, these matters can be addressed systematically.

The National Center recommends that the concept be implemented first for misdemeanor cases, with two teams of six members each being created. Evaluation of the process should be undertaken from the beginning. The team management approach should be tested for four months. At the end of the second month of operation, a preliminary evaluation should be made. If the results are positive, planning for implementation of teams for all case types should be initiated.

A final evaluation of the team system for misdemeanor cases should be completed by the beginning of the seventh month from the initial decision to test team management. If the final evaluation continues to show positive results, planning should commence for full implementation by the end of the twelfth month from initial approval.

5. Financial Impact of Implementing Team Management

a. Personnel

If all of the National Center's recommendations for team management are accepted, including the 16 additional staff positions, it would appear that the case-team management approach is substantially more expensive than the present system. This appearance is misleading, however. The National Center believes that if the Court does not change to a case-team management approach, the existing organization requires 15 additional positions in the sections affected by team management to operate effectively. The case-team management approach requires only 11 additional people, a savings of four positions.

The cost of adding the 11 positions to the teams would be approximately \$120,250 for increased salaries (plus whatever fringe benefits cost), but this amount is approximately \$49,000 less than the appropriate cost of maintaining the present sections that will be combined into team units.

b. Training

Substantial training and manual development is required in the Court today, so the cost of manuals for a case-team management system is only the incremental cost of writing manuals for a brand-new system. A highly conservative estimate of the additional cost would be 25 percent more than the cost of the training required if case-team management is not implemented.

c. Computer Programming

Team management will change the individuals who perform the required tasks for processing a case, but will not change the tasks required. Accordingly, none of the computer programming that now exists needs to be radically altered because of teams. There will be additional programming

required to accommodate case-team management, however. Again, the National Center is not in a position to estimate the value of the time required to make these programming changes, but believes it is minor, both in absolute terms and in terms of the savings and advantages to be gained from team management.¹⁰

d. Physical Space

Each team's members should be physically proximate to each other. Some rearranging of desks and possibly conversion of one or more of the unused courtrooms at N. 4th Avenue may be needed, but, again, the existing system also may require similar changes if staff are added. A change to case-team management alone should not require structural changes at N. 4th Avenue beyond any that are needed for the present system.

e. Filing Equipment

Some relatively small purchases of filing equipment to accommodate the needs of 11 teams may be required.

f. Teller Terminals

Teller terminals will be used by each team. The Court presently owns nine terminals. It may be necessary to add a terminal or two. It should not be necessary for each team to have its own terminal or for each team to have one terminal for a front-counter person and a second terminal for the person handling correspondence.

¹⁰ When the New Jersey Court of Appeals' clerk's office changed to team management, very minor adjustments were required in its computer programming, which reinforces the National Center's belief that a shift to case-team management in the Phoenix Municipal Court also can be achieved with only minor adjustments in programming.

g. Revenue

Not all of the fiscal implications of team management involve cost. Several hundred cases per week are referred to Treasury Collections because installment or deferred payments are not made. Approximately 70 percent of these cases then result in warrants that are referred to the Police Department. The Fines Section of the Court is reasonably efficient, but must deal with hundreds of cases every day. A team dealing with a smaller number of cases might be able to monitor and follow up on these cases more effectively than the presently limited fines collection staff. Substantial increases in fine payments cannot be anticipated but there might be a small increase discernable.

III. COMPUTERIZED INFORMATION SYSTEMS

A. Background and System Overview

The current Criminal Justice Information System (CJIS) is an on-line computerized system that supports a variety of functions in the Municipal Court and also provides information to the Police Department and City Attorney's Office. The hardware and software are maintained by the City's Management Information Systems (MIS) Department.

The system currently operating is the result of an evolutionary process that began with electronic accounting machines in the 1960's and progressed through card-oriented batch systems and a variety of computer hardware configurations. The basic design of the present system dates back to 1971 when the MIS Department assumed responsibility for computer processing. Prior to this, the Court operated its own hardware. The 1971 batch-oriented system was converted to an on-line system in 1975. At about the same time, Burroughs teller terminals were installed for on-line processing of accounting transactions.

Since 1975, the system has undergone several major enhancements and in recent years the workload volume of the system has increased substantially.

CJIS supports the processing of each of five major types of cases processed by the Municipal Court:

- minor traffic;
- major traffic;
- criminal;
- driving while intoxicated (DWI); and
- parking.

With respect to these cases, the system supports the following major functions:

- data entry;
- case tracking;
- case scheduling;
- cash accounting;

- warrant control;
- case inquiry;
- reports and forms generation; and
- disposition reporting.

Data entry is accomplished through a variety of means. MIS uses a key-to-disk data entry system to capture information about each citation and initially set up a computerized case record. Subsequent changes or updates to the case record can be made through transactions entered at CRT terminals, Execuports,¹¹ or teller terminals. Depending on the type of transaction, this information is either processed on-line or it is stored and batch processed at a later time.

The entry of a new case, along with subsequent updates to the case, allow for computerized case tracking. All scheduled events, warrants, disposition, and other relevant information create a history of each case. This then allows for subsequent inquiries about case status and reporting of exception situations.

Cases are scheduled automatically by the system, using an algorithm that finds available court dates and checks the availability of police witnesses. This automatic scheduling can be overridden manually.

The teller terminals linked directly to the computer data base are used to record and receipt cash transactions involving fine payments or bail bonds. The system also provides for cash balancing at the end of the day and printing of financial accounting reports.

Failure-to-appear (FTA) complaints and warrants are printed automatically if a defendant's citation record is not updated within five days from the date of arraignment. Warrant data can be entered and deleted through the system, which also communicates the status of warrants to the Police Department.

¹¹ Execuport is a brand name for a machine with data entry, inquiry, and printer capacity.

A variety of operational reports and forms are periodically printed for the Court, the police, and the prosecutor. Some statistical reports also are produced.

When cases are disposed, a record of each disposition is generated and transmitted via magnetic tape to the state Motor Vehicle Department. This record then is used to update driver history records.

B. Problems with Current System

The problems with the current system fall into four major categories:

- hardware/software;
- functional limitations;
- technical support; and
- user interface.

1. Hardware/Software Problems

The single greatest problem is poor response time. Response time is defined as the length of time it takes the computer to respond to a command or input that is entered on-line through a terminal. For most routine entries, the response time should be a matter of seconds. According to generally accepted data processing standards, an average time that exceeds 10 seconds generally is considered unacceptable. The CJIS performance has been much worse than this, with response times averaging 30 seconds to a minute, and often exceeding several minutes, depending on the time of day. At times, the system is simply unusable because response times are averaging in the 10-20 minute range.

Usually poor response times can be traced to one or more of the following:

- computer hardware overload (too many systems competing for too little main memory of the computer's central processing unit);
- computer software overload (too many users of specific software competing for use and execution of the same programs);
- communications overload (too many users competing for use of the same telephone line);

- poor system design (programs designed to do too much processing for an on-line environment);
- inefficient software (programs coded in such a way that execution time is higher than necessary).

The project staff found that each of these causes contributes, at least in part, to the CJIS poor performance.

2. Functional Limitations

The National Center found that most court personnel were satisfied with the functions that the system performs. The automated scheduling module, when operating properly, works very well. Even the teller-terminal accounting function, which is the center of most of the complaints about the system, performs the proper functions when working satisfactorily. The CJIS system as a whole, when compared with other systems of its type with which project staff is familiar, is functionally quite sophisticated. In other words, it is a relatively powerful system that performs numerous recordkeeping and information processing tasks.

Nevertheless, the users expressed some dissatisfaction with the limitations of the current system. Examples of these limitations are:

- the inability to search for records based on phonetic name entry (needed if exact spelling not known);
- the inability to inquire on disposed cases without both the name and birthdate;
- the inability to produce certain management and statistical reports needed by the Court and the City Attorney's office.

There are many other functional requirements that Court personnel would find desirable in an ideal system. Their dissatisfaction stems not so much from the lack of features as from the lack of timely response from MIS in obtaining enhancements or changes. This brings us to the third major area of problems.

3. Technical Support

The CJIS is supported by MIS technical personnel in two areas, maintenance programming and operations. In maintenance programming there are two programmer/analysts assigned to public safety applications, which include the Court, the City Attorney's office, the Police Department, and the Fire Department. A third programmer is temporarily assigned to assist these two full-time support personnel. The maintenance programmers are responsible for handling requests for service (RFS) from the users. RFS's may involve programming for additions to the database structure, changes to processing logic, or additional reports. The operations staff is responsible for the computer hardware and its operation, including the printing and distribution of reports, the mounting of tapes and disks, and the running of batch programs. The users of CJIS have experienced problems with the technical support from both maintenance programming and operations.

Because of budget cutbacks, the City of Phoenix now has less technical support staff than it did five years ago. At the same time, the need for qualified staff has increased due to the development of more systems and systems of greater sophistication and complexity. As a result, the MIS programming staff is badly understaffed and unable to keep pace with users' requests for service. There is a backlog of RFS's for CJIS that would take the present staff at least eight months to satisfy if no other work interrupted. Much of the programming time has recently been spent in fine-tuning the present system in the hope of reducing response time. These efforts have further delayed work on RFS's and frustrated the users.

The operations staff was cited by several persons interviewed as contributing substantially to MIS problems. Errors in the production of cards and reports needed for the daily operation of the Court's or City Attorney's office cause serious problems.

Each of the three major users of CJIS has one person responsible for liaison with MIS. In the Court, this person has full-time responsibilities as a user analyst. That is, the position carries the responsibility of translating the Court's needs to MIS and in turn assisting MIS in satisfying those needs. In the City Attorney's office and Police Department, however, no such full-time position exists, although in each case someone has attempted to fill this role in addition to other assigned duties.

4. User Interfaces

The term "user interface" refers to the human problems associated with the use of the computer system. As such it includes user training, management, clerical procedures that must mesh with the requirements of the system, and human error. Any computer system -- no matter how sophisticated -- can only be useful and effective if it is properly utilized. With regard to CJIS, there is evidence of several weaknesses in this area.

The first weakness is user training. It is unclear who is responsible for training personnel to use CJIS. The MIS Department does some training when a new system is first installed, but thereafter it apparently falls to the individual section managers to train their personnel. The CJIS user's manual, which contains instructions for terminal use, was written in 1976 and has not been updated since. Some Court personnel have taken the initiative and maintained their own

written manual for those parts of the system falling within their area of responsibility; most training, however, is done on-the-job through verbal instructions.

Although the system is not so complex that it requires intensive training, the lack of formalized instructions and manuals has led to misunderstanding of how different codes are to be used. This, in turn, has created serious data quality problems. The disposition code used to close out a case is the most oft-cited example of misunderstanding or just careless entry of erroneous data. Input errors such as these decrease the reliability of the system. If the users cannot trust the information, the system cannot be used. Ironically, the City Attorney's office suffers more from the data quality problem than the Court, since the Court can always turn to original documents for verification. The City Attorney's staff is highly dependent on the computerized record.

More serious than erroneous data, however, is the problem of untimely data entry. Because of a data entry backlog for the teller terminals, case disposition transactions are not being entered promptly. Despite efforts to catch up, the data entry backlog was running two to three months behind in January.

The backlog of disposition entries has a serious negative impact on almost all other sections of the Municipal Court. Lacking timely disposition entries, hundreds of invalid failure-to-appear complaints and warrants are generated each day, all of which increase the clerical workload. The status of cases in the database sometimes is inaccurate. The untimely entry of scheduling dates or other transactions has similarly adverse effects. Often, when the computer is down or response times are poor, scheduling transactions which could not be entered

immediately are later overlooked. This can result in defendants appearing in court when neither the prosecutor nor the Court is aware that the case was scheduled.

Procedural characteristics of individual judges also have the effect of causing data entry problems. In-court minute entries are not uniform and court staff responsible for entering information to the computer often have difficulty interpreting the intentions of the judge.

C. Plans for the Redesign of CJIS

The problems discussed above have been recognized for some time by all users of CJIS and by MIS. As a result, positive steps toward their correction were initiated and now are in progress.

Under the auspices of the Phoenix Criminal Justice Information System Policy Committee, an ad hoc committee was founded. Its purpose was to explore alternative ways to replace the current CJIS, now generally recognized as inadequate and irreparable. The report of this committee, published in September, 1981, lays the groundwork for the design of a new CJIS.

The National Center reviewed the conclusions and recommendations contained in this document and is in full accord with the basic approach recommended.

RECOMMENDATION NO. 5

Assuming budgetary approval, MIS should proceed with the design of a new CJIS which utilizes state-of-the art database management system software. The new CJIS should be run on hardware dedicated to criminal justice applications.

RECOMMENDATION NO. 6

The hardware procured should be sufficient for the reasonably expected increases in Court activity and capable of expansion.

RECOMMENDATION NO. 7

CJIS project staff in MIS should be totally dedicated to the development of the CJIS and relieved of duties and responsibilities related to other projects. The MIS staff currently assigned to maintenance of the existing CJIS should be available to assist in the development of the new CJIS.

RECOMMENDATION NO. 8

The Ad Hoc Committee appointed to investigate alternative systems should be converted to a Users Committee and expanded to include key user personnel with operational knowledge of, and interaction with, CJIS.

RECOMMENDATION NO. 9

The PCJIS Policy Committee should be retained and continue to function as originally intended. Differences that cannot be resolved by the Users Committee should be brought to the attention of the PCJIS Policy Committee. The chairman of the Users Committee should act as staff to the Policy Committee.

RECOMMENDATION NO. 10

The position of CJIS manager, as outlined in the report of the Ad Hoc Committee, should be established. Lacking approval for such a new position, the chair of the Users Committee should function in this capacity.

RECOMMENDATION NO. 11

The Police and City Attorney's offices should budget for a full-time user analyst position to coordinate CJIS requirements within their respective departments and fairly represent their interests on the Users Committee.

RECOMMENDATION NO. 12

The detail design of the new CJIS should not proceed until after a detailed requirements analysis has been conducted in each of the Court sections.

RECOMMENDATION NO. 13

During the requirements analysis, the usage of the teller terminals should be addressed in detail. Their preferred use to achieve maximum benefit is in an on-line mode. Off-line entry should be used only for back-up purposes.

RECOMMENDATION NO. 14

The following problems were identified during the course of this project and need to be corrected through the redesign of CJIS:

- a. Insufficient status and location codes;
- b. Revenue categories that do not parallel the categories used for filings and dispositions;
- c. Inadequate cross-references of aliases and AKA's;
- d. Inability to cover the posting of two bonds for a single bail amount;
- e. No unique entry and access codes for expunged cases;
- f. No separate status code for Treasury Collections;
- g. No Spanish language printouts;
- h. The need to enter citation numbers of each case when a number of companion cases are being jointly rescheduled;
- i. The CAPRI warrant system of the Police Department maintains a file of warrant information which duplicates that of the Court and therefore requires redundant data entry and continual cross-checking and verification;
- j. The communications lines, which vary from 300 to 2400 baud, are too slow to handle high-volume traffic in an on-line environment;
- k. Management information is limited and insufficient for the need.

RECOMMENDATION NO. 15

Prior to the design and implementation of the CJIS, the Finance Section should experiment with various alternate methods of data entry:

- a. Using cash registers for quick turnaround of receipts and cash control and CRT's for subsequent entry of the disposition, leaving the teller terminals idle until the new CJIS is implemented.
- b. Using the teller terminals exclusively in an off-line, key-to-diskette arrangement.
- c. Using the teller terminals (on-line or off-line) for recording cash transactions only and using the CRT's for non-cash dispositions.

RECOMMENDATION NO. 16

Improvements of the present system should be strictly limited, except for efforts to improve response times and meet statutory obligations, and enhancements avoided during development of CJIS. Pending enhancements should be reviewed.

IV. OTHER RECOMMENDATIONS

A. Case Processing

Whether or not the Court adopts case-team management, a number of changes in case processing are desirable. These are presented in the next division of this section. Some changes in case processing are needed only if the team concept is rejected. These changes are discussed in the second division of this section.

1. Changes needed whether or not team concept is accepted.

RECOMMENDATION NO. 17

The Court should investigate the acquisition system-wide of adequate open-shelf filing.

RECOMMENDATION NO. 18

Case files being sent to the arraignment courts from the front counter should have a slip attached to the file or citation showing the time they are placed in the arraignment court box.

RECOMMENDATION NO. 19

The Court should install a telephone answering device that provides a recorded message addressing the most common inquiries.

RECOMMENDATION NO. 20

The five temporary Finance Section employees working at 620 Washington Street should be moved to the N. 4th Avenue facility, which should remain open for the exclusive purpose of accepting bail payments after hours.

RECOMMENDATION NO. 21

The signatures required on refund checks should be reassessed.

RECOMMENDATION NO. 22

MIS should make necessary programming modifications to create a list of all bails posted and summons generated. Thereafter, the manual preparation of the log book of bails posted and the list of summons should be discontinued.

RECOMMENDATION NO. 23

The front counter system should be changed.

- A. If cases are processed by teams, a front-counter window should be designated for each team.

- B. If team processing is not implemented, two front-counter windows should be designated, one for assignments to the prosecutor's court and one for people with warrants. The remaining windows should be for all other case processing.

RECOMMENDATION NO. 24

The Court should encourage the Phoenix Police Department to update its court list as soon as police officer assignments are made.

RECOMMENDATION NO. 25

The Court, either through its Records and Procedures Committee or through a new forms committee, should review its forms and concentrate redesign efforts on forms whose manual completion can serve multiple purposes. Forms that might be combined include:

- a. The bail receipt form and the notice of court date; and
- b. The appeals form and the notice of court date.

RECOMMENDATION NO. 26

Spanish translations of the most commonly used court notices should be developed. These forms should be given to Spanish-speaking defendants until the CJIS system is implemented, at which time Spanish language notices should be generated automatically.

RECOMMENDATION NO. 27

When bonds are posted by personal check, the amount of the bond should not be refunded until the Court is assured that the check has cleared.

RECOMMENDATION NO. 28

Motions should be filed through each trial division's courtroom clerk and bailiff.

RECOMMENDATION NO. 29

A list of standard docket and calendar entries should be developed.

RECOMMENDATION NO. 30

Judges should review and agree on standard elements for minute entries regarding warrants.

RECOMMENDATION NO. 31

The Court should propose an exception to the Arizona Rules of Criminal Procedure which would allow a judge's facsimile signature on warrants.

RECOMMENDATION NO. 32

Courtroom clerks or bailiffs should enter the disposition code on long-form complaints.

RECOMMENDATION NO. 33

When a judge issues a failure-to-appear warrant and decides there will be a bond forfeiture hearing, the courtroom clerk should complete the bond forfeiture hearing form for his or her judge's signature.

RECOMMENDATION NO. 34

Courtroom clerks or bailiffs should fill out booking slips.

RECOMMENDATION NO. 35

Courtroom clerks should assume responsibility for assuring an adequate supply of forms in their divisions.

RECOMMENDATION NO. 36

The costs and benefits of using Treasury Collections for delinquent payees should be examined.

RECOMMENDATION NO. 37

If the Court continues to use Treasury Collections, the Court and the Treasury Department should jointly develop a three-copy questionnaire which would provide adequate current information on the defendant.

RECOMMENDATION NO. 38

The Court should seek to reduce the number of installment payments.

RECOMMENDATION NO. 39

The Court should develop a payment booklet procedure and discontinue sending receipts and envelopes after each installment payment is made.

RECOMMENDATION NO. 40

The Court should institute a program of holding a defendant's drivers license until 4:00 p.m. to give the defendant time to return to the Court with payment of his or her fine, as an alternative to deferred payment.

RECOMMENDATION NO. 41

The Court should discontinue preparing dismissal letters on appeals after 10 days have elapsed without payment for the transcript tapes and prepare them only at the end of the 30-day statutory period.

2. To be implemented if team management is not accepted.

The following recommendations concern problems or procedures that will exist only if the team management concept is not accepted.

RECOMMENDATION NO. 42

When citation errors are corrected by court staff rather than returned to the issuing agency the corrections should be made by the document intake clerks.

RECOMMENDATION NO. 43

One nonsupervisory person on the front counter staff should be assigned to locate files that cannot be found after a brief initial search.

RECOMMENDATION NO. 44

Disposition entries of "10 cent rings" should be done by the Finance Section staff on a CRT and one full-time-equivalent employee should be added for this assignment.

RECOMMENDATION NO. 45

The Court should increase the number of authorized staff who can access the CRT's to change the status of cases.

RECOMMENDATION NO. 46

Finance Section staff should be assigned to split shifts to allow on-line access to the main frame during evening hours. The possibility of using split shifts for Correspondence, Document Intake, Parking, and Post-Court should be studied.

RECOMMENDATION NO. 47

All juvenile case processing should be done by the Post-Court Section.

RECOMMENDATION NO. 48

The Finance Section should receive sufficient open-shelf filing equipment to permit files to be organized by appropriate category (bond forfeiture, bail refunds, mail dispositions).

B. Organization and Administration

The team management concept obviously involves major reorganization of staff and its management. Beyond those changes, there are additional adjustments in either organization or administration that would improve the Court's operation.

RECOMMENDATION NO. 49

The chief presiding judge should be appointed for a four-year term.

RECOMMENDATION NO. 50

All judicial and clerical operations should be consolidated in the courthouse at 125 West Washington Street.

RECOMMENDATION NO. 51

Following implementation of the team management concept, or within the next six months if team management is not accepted, the Court's administrative staffing should be critically reviewed.

RECOMMENDATION NO. 52

The position of administrative assistant should be reassigned from the chief presiding judge to the court administrator.

RECOMMENDATION NO. 53

The Court should continue its efforts to require greater compliance with the submission of leave time slips.

C. Training

One of the Court's greatest deficiencies, and therefore one of its greatest needs, is adequate training of staff. Efforts have been made recently to improve line and supervisory staff training by encouraging staff, particularly supervisors, to take training programs offered by the City's Personnel Department. These efforts have not been adequate for several reasons. First, they remain voluntary and some supervisors faced with backlogged work have chosen to deal with the pending workload rather than obtain training. Second, for the same reason, some supervisors have been reluctant to spare line staff for training. Third, the Court's needs do not necessarily correspond to those of other departments of the City. Training appropriate for the highway department or the treasury department is not necessarily appropriate for the Court. Even if there is sufficient relevance in existing training programs, the Court's needs often extend beyond the general programs designed by the Personnel

Department and these needs presently are not being addressed. The Personnel Department has expressed a willingness to work with the Court to develop additional training programs, but to date these have not been implemented. Therefore, despite the efforts being made, training remains deficient for all staff. The Court has sought money for training in its last two budgets, but the request has been denied each year by the City Council.

RECOMMENDATION NO. 54

Training of line and supervisory staff should be given the highest priority. Such training should include at least the following:

- a. Line staff should receive immediate training in proper telephone communication, proper dealings with the general public, and stress reduction.
- b. A nonexclusive list of specific problem areas to be addressed during training includes:
 - Standard procedures for manual calendaring by courtroom clerks and jail court personnel.
 - Procedural interaction between probation and trial divisions.
 - Disposition codes used by jail court personnel.
 - Automated systems overview.
- c. Supervisors should receive immediate training in delegation, personnel administration, responsibilities of management with respect to union contracts, and interpersonal counseling skills.
- d. Written manuals should be revised in a loose-leaf notebook format and responsibility assigned to the personnel and training manager to keep the manuals updated on a regular basis.
- e. No one should start a new position prior to formal training sessions -- varying in length depending on the position to be filled -- conducted by or under the supervision of the personnel manager and section supervisor.
- f. An orientation booklet should be prepared giving the new employee a system overview, including a glossary of judicial terminology.
- g. Cross training should be limited to areas in which staff might be needed on a current basis. General cross training for possible future assignment should be avoided.