

PRODUCTIVITY REPORT

EVALUATION OF THE JUVENILE AND DOMESTIC RELATIONS DISTRICT COURT SUPPORT PROCESSING SYSTEM

JULY 1976

58377

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EVALUATION OF THE
JUVENILE AND DOMESTIC RELATIONS DISTRICT COURT
SUPPORT PROCESSING SYSTEM

Prepared by:

Public Safety Branch
Office of Research and Statistics

and

Support Services
Juvenile and Domestic Relations District Court

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I. INTRODUCTION

A. Purpose

The purpose of this report is to evaluate the Fairfax County Juvenile and Domestic Relations District Court's computerized support accounting system and revised procedures in order to determine the extent to which productivity has been enhanced since implementation of the system and procedures in April 1974.

B. Description of the Support Processing System

The computerized support processing system assists the Juvenile and Domestic Relations District Court by processing Court ordered child support and restitution payments. The support processing system maintains a master file of account records, along with a historical file containing records for all payments entered into the system. In addition, the system produces a number of reports which provide management staff the ability to monitor the collection of payments and the status of accounts.

II. EVALUATION SUMMARY

By mid-1973, the Fairfax County Juvenile and Domestic Relations District Court determined that its support case processing procedures, which were supported by an IBM 6400 accounting machine system, located at the Court and operated by Court personnel, were inadequate because of increased work load, hardware restrictions, limited software capabilities, and time-consuming manual processing. The volume of activity required 185 machine-hours of processing per month, necessitating frequent overtime for Court personnel responsible for operating the machine. Consequently, the Court decided to select an automated system and to implement simplified procedures.

The selection of an automated system to handle the Court's support case processing requirements was based on a systems evaluation done by the County's Office of Research and Statistics (ORS) in October 1973. Since it had been determined that the IBM 6400 was inadequate, consideration centered on designing a new system which would allow enhanced capability for statistical and management reports. Court staff identified a successful system in Saint Lawrence County, New York, and the ORS evaluation determined that a modification of the Saint Lawrence County system's concepts, based on Fairfax County's needs and using the County's centralized computer facility, was the most cost-effective choice. The modified system was installed April 1, 1974, on the Fairfax County IBM 370/155 computer, using batch processing.

In a related action, the Court changed its procedures for handling Court ordered payments to petitioners. Formerly, these were remitted to the Court, which deposited them in a Court account and then wrote individual checks to the appropriate recipients, a system followed by all Virginia Juvenile and Domestic Relations Courts and by similar courts in most other states. By requiring persons under Court order to make the checks payable directly to the ultimate recipient, the Court materially reduced processing time and costs.

This system enables the Court to process payments more quickly, with less chance for errors, and forward them to petitioners in much less time than was possible under previous procedures. Instead of a lag time of as much as two weeks, payments usually are processed within 24 hours. The system provides better control over accounts, identifies more readily accounts which are in arrears, and prepares delinquent notices automatically. In contrast, under the previous procedures, delinquent notices were manually prepared only for those cases about which complaints of non-payment were received. This improved management information capability has provided the Court with the opportunity for increased enforcement of support orders. To utilize this new capability, the Juvenile and Domestic Relations District Court has obtained a Law Enforcement Assistance Administration (LEAA) grant for support enforcement, which, in the January 1976 through April 1976 period of operation, has realized a 12.7 percent increase in the collection rate for the support accounts for which the Court has enforcement responsibility. Six grant-funded enforcement personnel are able to systematically follow-up on all support cases and pay particular attention to those in arrears. Implementation of this grant would have been considerably more difficult, if not impossible, without the improved information capability available from the computerized support processing system.

Additionally, the utilization of the new system has reduced the Court's yearly data processing costs by approximately \$16,500 over that which would be required if the older equipment were still utilized.

In summary, this system has provided the Court with a more efficient system and an improved capability for managing its support and restitution responsibility and thereby reduced the burden such collections place on the Court. In recognition of this system's accomplishments, Fairfax County received a 1974-75 National Association of Counties (NACO) Achievement Award for the Juvenile Court Support Processing System.

III. BACKGROUND

This section of the report provides background information on Fairfax County, the County's Productivity Program, and the Juvenile and Domestic Relations District Court's support processing program. The discussion is included to provide a perspective of the environment in which the support processing program operates.

A. Overview of Fairfax County

1. Government

Fairfax County, Virginia, located in the Washington, D.C. metropolitan area, is the largest political subdivision in the Commonwealth of Virginia. The County is governed under the Urban County Executive form of government, with the powers of the local government vested in an elected Board of Supervisors which functions as both the legislative and administrative branch of the government. The County Executive is a full-time administrator appointed by the Board of Supervisors, and serves as the administrative head of the government, preparing the County's annual budget and executing resolutions and orders of the Board. The County's fiscal year 1976 authorized budget was \$440,000,000.

2. Population

As of July 1974, shortly after the implementation of the computerized support processing system, the population of Fairfax County was approximately 530,200 persons. This population was distributed unevenly over the County's 399 square mile area which includes highly urban communities, many typical suburban districts, and some largely rural sections. Between 1960 and

1970, Fairfax County grew at twice the rate of the entire Washington metropolitan area, with an annual growth rate in excess of six percent.

3. Juvenile and Domestic Relations District Court

The Fairfax County Juvenile and Domestic Relations District Court is responsible for adjudicating juvenile and family matters, as well as offenses committed by adults against juveniles which the Code of Virginia places under its authority. The Court offers a comprehensive youth services program for delinquent youngsters under the legal age of eighteen who live in Fairfax County, the City of Fairfax, and the Towns of Herndon and Vienna. In addition, the Court provides services to adults in these jurisdictions who are experiencing domestic and/or family difficulties which are amenable to unofficial arbitration, to counseling, or to legal intervention. The Court also provides services involving criminal complaints against adults for offenses committed against any juveniles in Fairfax County.

During FY1975 the Court received 11,324 juvenile complaints, 2,500 adult complaints, and was responsible for 2,127 support and restitution accounts. Thus, support cases represented 15.4 percent of the Court's intake case load. Of the Court's 77 authorized full-time employee positions, the equivalent of 4.4 of these, or 5.7 percent, work on support and restitution cases. Including the Court's grant-funded staff as well, the equivalent of 11.4 employees, or 13 percent, of the Court's 88 full-time employees are assigned to support related duties.

¹ Source: Annual Statistical Report, FY1975, Fairfax County Juvenile and Domestic Relations District Court; and Support Services staff.

4. Fairfax County Productivity Program

The function of the Fairfax County Productivity Program is to provide the means to evaluate the effectiveness of County agencies and to assist the agencies in identifying ways to improve their performance. The Productivity Program had its origins in June 1972, when the County Executive established the Management Statistics Committee with the responsibility for developing a series of management indicators for each County agency. In March 1973, the then newly-created Office of Research and Statistics was directed to implement the Committee's program. The Committee had identified goals and objectives for all County agencies, including a comprehensive set of measures of effectiveness and work load indicators and, in some cases, targets to measure levels of achievement. Such data are now compiled monthly for all agencies and published as the Monthly Report to the County Executive. In addition, reports on productivity improvements or studies of potential productivity innovations are published periodically. Faced with the pressures of growth and simultaneously with serious budget constraints, the County is strengthening its efforts to enhance productivity. This report concerns one of these efforts--the implementation of improved support case processing procedures, utilizing the County's centralized computer facility.

B. Overview of the Support Processing Function

Among its several responsibilities, the Fairfax County Juvenile and Domestic Relations District Court is charged with the enforcement, collection, and

disbursement of Court-ordered child support and restitution payments. Child support payments for children under the age of 18 may be the result of orders by this Court, the Fairfax County Circuit Court (as a result of a divorce decree), or by reciprocal actions to other courts in the United States which handle domestic relations or juvenile matters. Support payments may be made to a spouse, guardian, or to foster homes, or other institutions caring for a child committed by the Court. Restitution payments involve monies owed by a juvenile to a complainant, or ordered by the Court for payment of damages incurred by the complainant as the result of an offense committed by the juvenile. Other types of payments processed include support cases in which the child has reached the age of 18 but, since the account has been in arrears, payments must continue until all Court-ordered support has been fulfilled.

The Court's Support Services section has responsibility for support case processing.

The support-related functions can be defined as follows:

- accounting,
- enforcement,
- testimony, and
- information.

The accounting function involves receiving checks from defendants, crediting the payments to the appropriate support or restitution accounts, forwarding the payments to the plaintiffs, and maintaining up-to-date information on the status of each account. The enforcement function entails the utilization of the account information to determine the extent to which accounts are in arrears,

and then taking action, including Court action, to encourage the defendants to make payments on a more timely basis. The testimony function includes making Court appearances to verify the status of support and restitution cases in order to allow the Court to render decisions based on the best available data. Lastly, the information function involves providing information to clients, managers, and other interested parties on the status of cases on an individual and aggregate basis.

IV. ANALYSIS

This section provides a discussion of the need for improving the support and restitution account processing operation, the implementation of the new system, and the results obtained after the new system and revised procedures were established.

A. Need for Revised Support Processing Procedures

The IBM 6400 accounting equipment was installed in the Juvenile and Domestic Relations District Court in May 1968, replacing a manual accounting system using ledger books and handwritten checks. The system was composed of an IBM 6420 Magnetic Ledger Accounting Machine, an IBM 6425 Magnetic Ledger Unit, and seven hard-wired panel boards which constituted the jobs or "programs" of the system. The IBM 6420 consisted of an IBM selectric typewriter as the input device, a printer, a memory, and a mechanism for mounting the panels. The IBM 6425 processed the ledger cards, including the printing of balance forward records on the face of the card and the maintenance of data on the magnetic tape on the back of each card. The permanent storage device for the system was the strip of magnetic tape on each ledger card.

The operation utilizing the IBM 6400 equipment became deficient within a few years because of the following factors:

- increasing work load,
- hardware restrictions,
- limited software capabilities, and
- time-consuming manual procedures.

From the time the IBM 6400 system had been installed in May 1968, until 1974, the support case work load had increased at a rate exceeding 10 percent per year. An original requirement for 95 hours of machine time per month had, as of August 1973, risen to 185 hours per month. Given the normal work time available of 160 hours per month, it was apparent that overtime was required to process the ever-increasing work load. Also, by late 1973, the IBM 6400 system was experiencing down time approximately once per month, because of its constant use.

Moreover, the IBM 6400 was designed for a specific task--processing ledger cards; it was not intended to be a computer in the modern sense of the word, but was more like a calculator which was able to print onto forms and reports. Thus, it could not be enhanced to increase its capacity to handle the Court's expanding work load, or to perform more sophisticated tasks. The amount of time required to process the data could not be improved, since the equipment was able to process only one case at a time.

Due to its limited software capabilities, the IBM 6400 system did little more than perform minor calculations and print checks. The important functions of preparing bank deposit slips, reconciling checks returned by the bank, and preparing notices to individuals with accounts in arrears all had to be accomplished manually. Since approximately 2,000 checks per month were involved, payments to clients were frequently delayed as much as two weeks. Lastly, the system did not prepare any management or statistical reports and, consequently, monitoring of accounts was very difficult and enforcement of court orders for support payments was seriously impeded.

In seeking a solution to the above situation, Court staff contacted several data processing vendors and also learned of a system operating in Saint Lawrence County, New York, for processing support and restitution payments. The Director of Court Services determined that this system, operating on an IBM System-3, could meet the Fairfax Court's requirements and recommended the adoption of such a system, including the acquisition of IBM System-3 equipment for utilization by the Court.

In accordance with Fairfax County's budget procedure, the Court's proposal for acquisition of EDP equipment was reviewed by the County's Cooperative Computer Center (CCC) Committee, and forwarded to the County's Office of Research and Statistics (ORS) for evaluation of alternatives. A number of different alternatives were analyzed, including obtaining an IBM System-3 computer and the Saint Lawrence County software, renting an additional IBM 6400 Accounting System, and placing the Saint Lawrence County System software on the central County computer (in either batch processing or teleprocessing mode).

As a result of the evaluation, it was determined by the Cooperative Computer Center Committee that the best course of action was to install a batch processing system on the central County computer, utilizing to the greatest extent possible, the software developed in Saint Lawrence County.

B. Implementation of the System

The implementation of the selected system by the County's Office of Research and Statistics began in late October 1973, and lasted until April 1, 1974,

when the system became operational. One of the first steps in preparing to install the system was the ORS project team's trip to Saint Lawrence County to view the system which was to be adapted for use by the Court. The project team returned from the trip with copies of all the programs and reports used in the Saint Lawrence County system.

A series of meetings then ensued with Court staff to determine modifications desired to the Saint Lawrence County system. As a result, significant changes were made to the design concepts and a system was developed for the Court which was tailored to Court requirements. Additionally, many system control features were added to ensure data integrity.

The most important change to the Saint Lawrence County concepts incorporated during the system implementation resulted from the Court's decision to discontinue the practice of writing checks to complainants and to no longer accept cash payment. Instead, the Court chose to forward the checks received from defendants to the complainants. This change altered a basic concept of the Saint Lawrence County system and, therefore, required considerable processing modifications. In order to implement this change, the Court mailed notices to all defendants informing them of the new procedure and specifying the way in which checks were to be written after April 1, 1974. Although there was some resistance to this change by those sending checks to the Court and exceptions were allowed, eventually the Court was able to enforce this change by refusing to accept payments which were not written in accordance with the new procedure.

The biggest task in implementing the system was the conversion of the accounts data base from the IBM 6400 system ledger cards to the computerized format.

This was accomplished by a joint effort of the ORS project team and the Support Services staff during the entire month of March 1973. The conversion process involved reviewing each case folder to determine the validity of the case and coding input data onto an account master form for keypunching. Each of the 2,200 accounts required about 15 minutes to code; the conversion process, therefore, involved approximately 550 man-hours. During the conversion process, nearly 400 accounts were eliminated from the system because they were determined to be either outdated or uncollectable.

C. Results

This section discusses the results of the new procedures and computerized support processing system installed in the Court on April 1, 1974.

1. Increased Support Branch Productivity

As a result of the new system, support branch productivity has been significantly increased. This increase is primarily manifested in the fact that many of the routine, account maintenance functions which had to be accomplished manually under the old process are now either directly supported or completed by the new automated system. This has resulted in increased resource availability for the enforcement of delinquent accounts, a function which was previously quite limited. Examples of the increased utilization of resources are given below.

a. Check Processing

The old process involved Court personnel in reviewing checks received from defendants, entering payment information on the case card in the 6400, depositing the checks in the Court's account, rewriting

the checks payable to the plaintiffs, and, ultimately, balancing the account, which entailed more than 2,000 checks per month. Under the current system, the Court validates each check, records the receipt of the payment for entry into the system, and forwards the check to the plaintiff using a computer-produced mailing label. This has eliminated the need to reconcile the bank account and rewrite the checks to be made payable to the plaintiff. Turnaround time for payments being sent to the plaintiff has been reduced from as much as two weeks to usually one day and, thus, has provided better service to the Court's clients.

b. Preparation of Delinquent Notices

The computerized system has also reduced manual processing because the computer automatically prints delinquent notices whenever an account is in arrears instead of a clerk typing delinquent notices only when a certain account arrearage became evident (to the clerk) as was the case under the old system. In addition, this has produced a more equitable system and enabled the Court to monitor all accounts which are in arrears, not merely those in which the clients have complained about arrearages owed.

c. Current Account Information

The system also produces current account status data on a daily basis, which is extremely useful for Court staff when testifying in Court. Previously, the Court was up to two weeks behind in posting payments received. The system also produces management-oriented statistical reports on a monthly and quarterly basis which provide Court managers with an overview of account status, volume

of payments, amount collected, and the distribution of accounts by type. The use of the computer to perform the necessary calculations, as well as the simplified procedures mentioned earlier, ensure improved accuracy of support case accounting. Such information was not readily available before.

The improved information on account status has provided the Court with the opportunity to enforce Court orders for support payment by identifying all defendants whose accounts are in arrears. To capitalize on this improvement, the Court has obtained a Law Enforcement Assistance Administration (LEAA) grant for FY1976 which provides funds for six support enforcers. These support enforcers provide the Court with increased capabilities to enforce child support orders. For all active support cases being assigned to the support enforcers, personal contact with the complainant and defendant allows for timely updating of accounts, the resolution of support-related disputes, the determination of reasons for support arrearages, and the determination of appropriate action necessary to enforce support orders. In the event a Court hearing is required to enforce the support order, the enforcers collect and provide information for the Judges to facilitate the decision-making process in the courtroom. This intensive monitoring of support accounts has also provided the Court with the capability to locate missing defendants through the use of other agencies, as well as personally locating and, if necessary, arresting the defendant. Through the implementation of these support enforcement techniques, collections on accounts, where enforcement is the responsibility of

this Court, have increased 12.72 percent for the first four months of calendar year 1976, as shown on Exhibit A, as compared to collections for the same time period in 1975.¹ For those cases where there is no enforcement responsibility, the collection rate has decreased by 0.75 percent.

If the success of the aforementioned support enforcement grant continues over the long term, the County's taxpayers may benefit more directly. Currently, 15 percent of the support case plaintiffs are receiving welfare payments. If the increased support payments resulting from the grant enforcement activity continues, it is possible that some of these clients may no longer require welfare payments and, further, that some Court clients not now receiving welfare assistance would not seek such assistance.

In addition to assisting the Court's Support Services staff with the enforcement function, the improved information available from this system is utilized when the staff must testify at Court hearings connected with support and restitution cases. The staff is better able to inform the judge on the status of history of the account in question.

¹ This excludes restitution cases and two types of support payments which are not under the Juvenile and Domestic Relations District Court's ability to control--Circuit Court cases referred for "collection only" and out-reciprocal cases (i.e., cases under URESA to be collected by other courts for Fairfax County residents).

As indicated in Exhibit B, and briefly described on the previous pages, the revised system reduced manual processing and allowed Court staff to use their time for less menial tasks. Instead of 6.2 man-years required with the old procedures and system, only 4.4 man-years are now needed.

Additionally, the implementation of this Court system without purchase of additional hardware also provides increased utilization of the County's centralized computer facility and takes advantage of the County's professional data processing staff. The use of the County's up-to-date computer facility eliminates the wasteful "downtime" experienced during the last year of the Court's use of the IBM 6400 system when the work load volume was taxing the system beyond its capacity.

2. Decreased Data Processing Costs

Exhibit C summarizes the decreased data processing costs the Court has incurred since adopting the new system. As shown, the costs for using the old IBM 6400 system were running \$17,283 per year for equipment rental. As has been stated earlier, this equipment had reached the saturation point by 1973 and thus, if the Court were still using such equipment, two IBM 6400's would be needed. The costs for two such machines would be \$34,566. The new system cost a total of \$17,936¹ to operate during FY1975. This cost includes \$9,533 for computer charges (the Juvenile

¹ The yearly costs will fluctuate from year to year, depending on the amount of system changes and special requests generated by the Court. FY1975 is considered a typical year in terms of data processing costs.

Court's share of the costs to operate the central County computer), \$4,649 for system analyst and programmer billable time, and \$3,754 for the amortized development charges (the system cost \$18,688 to develop and is being amortized over a five year period). Thus, in FY1975, the Court saved \$16,630 in data processing costs by operating under the new system as compared to that which would have been required using the old equipment.

EXHIBIT A

Support Statistics
January 1976 - April 1976

CATEGORY OF SUPPORT CASES	AMOUNT DUE	AMOUNT COLLECTED	COLLECTION RATE	NUMBER OF ACCOUNTS	COURT ENFORCEMENT CAPABILITY	COLLECTION RATE VS 1975 COLLECTION
Fairfax District	518,993.55	365,205.05	70.36%	917	X	+16.36%
Circuit Court Collection Only	51,804.12	27,603.00	53.00%	47		- 5.00%
Circuit Court Collection and Enforcement	250,467.03	173,003.35	69.07%	250	X	+ 9.77%
Out Reciprocals	224,595.77	143,907.95	64.07%	428		+ 2.67%
In Reciprocals	252,011.08	199,485.25	79.15%	459	X	+ 6.85%
All Cases	1,297,871.30	909,204.60	70.05%	2,101		+ 9.85%
Cases with Enforcement Capability	1,021,471.41	737,693.65	72.22%	1,626	X	+12.72%
Cases without Enforcement Capability	276,399.89	171,510.95	62.05%	475		- .75%

EXHIBIT B

Comparison of Time Distribution Before and After
Installation of the New Support System
 (Comparison in Man-years)

<u>WORK LOAD FUNCTION</u>	<u>BEFORE</u>	<u>AFTER</u>	<u>SAVINGS</u>
Accounting (processing checks, balancing, account maintenance, et cetera)	2.9	2.2	.7
Testimony (court appearance)	.4	--- (1.2) ¹	.4
Information (answering inquiries by mail and telephone)	1.5	--- (1.2) ¹	1.5
Enforcement (monitoring, accounts, issuing rules/capias, et cetera)	<u>1.4</u>	<u>2.2 (3.6)¹</u>	<u>(.8)</u>
Totals	6.2	4.4 (6.0) ¹	1.8

¹ These numbers indicate grant (non-permanent) employees.

EXHIBIT C

Comparison of Yearly Data Processing Costs Before and After
Installation of the New Support System

BEFORE

IBM 6400 Costs \$17,283

AFTER

Equipment Charges 9,533

Analyst and Programmer Charges 4,649

Amoritization of Development Costs
(18,668) Over Five Year Period 3,754

\$17,936

Current costs if still using IBM 6400 equipment
(\$17,283 per machine X 2 machines) = \$34,566

Yearly savings by using new system
(\$34,566 - \$17,936) = \$16,630

END