EVALUATION--
DATA PROCESSING CENTER

# 340 - 67

AUTHOR: R. ALTMAN

COMMUNITY SYSTEMS FOUNDATION
April 5, 1967

Mr. Malcolm MacCoun
Executive Director
The Mary Imogene Bassett Hospital
Atwell Road
Cooperstown, New York

Dear Mr. MacCoun:

At your request, an analysis was made of the business office procedures and The Data Processing Center.

This report is an evaluation of The Data Processing Center.

I would like to acknowledge the assistance and cooperation received throughout the study from yourself, Mr. Frank Irving and from the entire Business Office staff.

Respectfully submitted,

Richard D. Altman
RDA/van
In order to evaluate The Data Processing Center, certain areas of consideration must be established. The following areas have been established for this report:

A. Service Bureau -vs- Shared Data Center
B. Systems Ability
C. Technical Ability
D. Present Equipment and Work Load
E. Dependability
F. Cost of Data Processing
G. Education and Training
H. Miscellaneous Consideration

A. SERVICE BUREAU -vs- SHARED DATA CENTER

SERVICE BUREAU

A Service Bureau, by definition, is an organization which sells its Accounting and Data Processing services to various clients. These services fall into two general categories:

1. "Package" application data processing.
2. "Custom" application data processing.

"Package" Application Data Processing

These are so called standard programs which the Service Bureau has either developed themselves or used from Program Application Libraries of Computer Manufacturers.

"Custom" Application Data Processing

These are programs which the Service Bureau has had to develop for a specific client. The cost of data processing for this type, is in most cases, more than for "Package" programs.

Shared Data Center

A Shared Data Center is a Service Bureau set up to do the work of various clients. Whereas a Service Bureau sells its services on a cost per application basis, a Shared Data Center sells its services on a volume per cent of expenses. Many times a Service Bureau needs various types equipment to do a job for a specific client. Under the Shared Data Center concept, all clients pay a part of the expenses whether their applications utilize a specific unit of equipment or not.

According to the information that has been made available to me by yourself and Mr. Carlton Jones, Manager of DPC, The Data Processing Center can be classified as a Shared Data Center and NOT a Service Bureau.
B. SYSTEMS ABILITY

A Service Bureau or Shared Data Center should be aware of the specific needs and requirements of their clients. Someone should understand and know how to implement the proper system for a specific application. The proper system includes; forms design, documentation, efficiency of operation, effective report generation, client education and a good cost-result ratio.

I feel that under the leadership of Mr. Carlton Jones, very few, if any, of the above objectives have been met.

Forms Design

In the area of forms design, very few, if any, organizations, let alone hospitals, design the last copy of a multiple part form as a "TAB" card unless the control number, check number, department number or account number, etc., is prepunched. The forms that were designed for the Mary Imogene Bassett Hospital to be used as source documents for keypunching are "TAB" cards. None of these forms are prepunched. Forms of this nature cost approximately 30% more than forms which do not utilize a "TAB" card as the last copy.

Documentation

The data processing system that has been implemented at the Mary Imogene Bassett Hospital lacks any form of written documentation. In talking with almost all the business office staff, I find not one person that really understands what and how he must do to properly effect the data processing system. As a result, each person in the business office has his own sub-system to check on the master system.

Report Generation and Education

One of the most talked about objectives, when implementing any system, is Education and Training. In this area, The Data Processing Center has really fallen down. Before I continue, let me say I feel education and training of the client is a responsibility of the Service Bureau or Shared Data Center. Since the Data Center is generating the various reports and therefore, understands them, it is their responsibility to educate the client. In order to illustrate the lack of education let me convey the results of a Business Office Staff meeting. During one of my stays at Cooperstown, I held a Business Office Staff Meeting. During the meeting, I held up an Accounts Receivable Aged Trial Balance Report and asked if anyone recognized the report. Four or five people acknowledged this fact and I asked them if they could explain to me what the various columns on the report meant. These people, supposedly, work with this report each day and not one could explain the meaning of each column. Their explanation was, "No one ever explained the full meaning of the report to us".

In conclusion, let me say, I question Mr. Jones' systems ability for hospital data processing.

COMMUNITY SYSTEMS FOUNDATION
C. TECHNICAL ABILITY

The Data Processing Center is processing the following applications and generating the following reports:

Payroll:

1. Employee Check
2. Payroll Register
3. Cost Center Distribution
4. Pension Plan Analysis
5. 941-a Quarterly Report
6. W-2 Annual Report

Accounts Payable:

1. Check Writing
2. Account Number Distribution for G/L Posting

Outpatient Accounting:

1. Patient Billing
2. Statistical Analysis by Cost Center by Type Visit by Units and Dollar Value.
3. Statistical Analysis of Lab by Type Test by Units and Dollar Value.
4. Statistical Analysis of Radiology Department by Type X-Ray by Units and Dollar Value.
5. Automatic Pricing of Lab and X-Ray Charges.
6. Activity Register

Accounts Receivable:

1. Patient Statement
2. Aged Trial Balance
3. Medicare Distribution Listing

From the above listing of applications and reports, I must conclude that Mr. Jones' technical ability is adequate. Although the present hospital administration does not like the format of some of the reports generated by Mr. Jones, I am quite sure with Mr. Jones' technical ability, these report formats could be changed.
D. PRESENT EQUIPMENT AND WORK LOAD

The following listing is equipment presently used at The Data Processing Center:
(This listing was made as a result of two site visitations.)

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<th>QTY</th>
<th>MFG</th>
<th>MODEL</th>
<th>DESCRIPTION</th>
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According to Mr. Jones, every unit of equipment listed above is necessary to his operation. I do not know every application that Mr. Jones is processing for all clients, but I question the need of some of the equipment such as the 029 keypunch instead of the 024 or 026.

Mr. Jones indicated to me, he is doing work for thirty three organizations with The Mary Imogene Bassett Hospital representing fifty to sixty-five per cent of his total volume.

Although equipment and work load of a Data Center is a consideration, the main question to be answered is; "Can a data center do the job with the best cost-result ratio for the client?"
E. DEPENDABILITY

Dependability is an asset that all service bureaus or data centers should possess.

According to the information which has been given me, I understand there has been problems on both the hospital's part and the Data Processing Center in relation to dependability.

To illustrate part of this problem, Mr. Ray Mullins in the Accounting Department said that Mr. Jones, when implementing the Accounts Payable Application, instructed Mr. Mullins to send coded original vendor invoices to the Data Processing Center. Mr. Jones indicated, the original vendor invoices would be keypunched and returned to the hospital within forty-eight hours. Mr. Mullins indicated to me, this statement has never been a fact. I asked Mr. Mullins to keep a log record of the date invoices were sent to the Data Processing Center and date returned. The results of this log record are shown as Exhibit "A".

The above illustration clearly shows other problem areas. Since original vendor invoices are sent to the Data Processing Center, the hospital has no record once the invoice has left the Accounting Office. Also, since the invoices are obviously not being returned within forty-eight hours, inquiries from vendors on those invoices can not be answered. I have no way of knowing, but the possibility of an invoice being lost does exist.

Keypunching from original invoices is part of system design, but keypunching "turn around time" is a part of dependability.
F. COST OF DATA PROCESSING

Since the Data Processing Center is a shared data center, the actual cost per application cannot be derived. When I questioned Mr. Jones concerning the method used to derive costs, I was astounded.

Volume log books are kept for two specific months during the year, October and April. These volume figures are multiplied by six to arrive at yearly volume figures. These final figures are used to arrive at percentages and final dollar volume.

According to information given me, the Mary Imogene Bassett Hospital paid $34,000.00 for data processing last year. This figure does not include any percent of salaries paid by the hospital for 1 1/2 outpatient control clerks, or part-time messenger service.

The data processing system has created confusion in the Business Office, which I feel has had a direct relationship to present staffing, resulting in a high cost-low result ratio.
G. EDUCATION AND TRAINING

This area was discussed in part under Section B.

The importance of education and training cannot be overemphasized. Many systems have been made or broken on this very point.

I feel that the lack of education and training for the employees of the Mary Imogene Bassett Hospital has aided to the breakdown of the data processing system.
H. MISCELLANEOUS CONSIDERATION

At various meetings with Mr. Jones, it was indicated that a computer would solve a lot of the present problems. It was also indicated that much more information and reports could be generated with the installation of a computer. Unless the present data processing system is "cleaned up", no computer in the world would solve some of the existing problems.

On March 24, 1967, I spoke with Mr. Edward Tibbits, IBM Marketing Representative from Utica, New York. Mr. Tibbits indicated the following information:

1. He assumed the territory and the DPC Account from Mr. Joseph Haley on January 1, 1967.

2. A proposal from an IBM 1440 computer with disk was submitted to DPC.

3. An alternate proposal for an IBM System 360/20 was also submitted to DPC.

4. Mr. Jones of DPC leans toward the Model 1440.

5. In order for DPC to receive an educational discount, the computer would be negotiated under the name of the Mary Imogene Bassett Hospital. If the hospital did not have its name on the contract, no discount would apply.

6. If the computer order was placed under the name of the hospital and the discount applied, the additional cost to DPC would be approximately $1,000.00 per month. This takes into consideration replacement of some unit record equipment.

Mr. Jones has indicated that the additional cost would be offset by two clients that he would go processing for. One question I asked was, "what if these two clients do not partake of DPC's services?" Mr. Jones said he was assured this would not happen.
CONCLUSIONS

A. The Data Processing Center is a shared data center and not a service bureau.
B. Mr. Jones lacks good systems ability for hospital data processing.
C. Mr. Jones seems to have adequate technical ability for unit record equipment.
D. The present equipment of DPC is more than adequate.
E. DPC's dependability needs definite improvement.
F. Data processing costs are much too high in relationship to results obtained.
G. There has been a lack of education and training for the employees of the Mary Imogene Bassett Hospital.
H. A computer installation is not going to solve many of the existing problems.

A complete systems revision is needed in the Business Office and another means of processing data should be sought.
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EXHIBIT 1