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COMPUTERIZED FINANCIAL AID OPERATIONS: POINTS TO CONSIDER BEFORE COMMITTING TO INCREASED UTILIZATION OF COMPUTER SYSTEMS

by Karen L. Pennell

The use of computers in financial aid operations is not new or startling. Many offices have used Electronic Data Processing (EDP) to gather information on applicants, prepare data for federal reports and applications, and maintain records of student accounts. However, in recent years, interest has grown in using computers to analyze information, for decision-making, and for more routine functions. Several financial aid management software programs are now being marketed and many institutions are seriously contemplating purchase of one of them. Because the cost of these programs is substantial, both in purchase price and in the time required of the financial aid and institutional EDP staffs, careful analysis of any proposal is essential. If the choice of a program or service is hasty or inappropriate, the user's needs may not be met or difficulties may arise. While it is natural to blame the system for problems, proper assessment of needs and thorough investigation of available software programs are essential for a satisfactory and efficient operation.

The University of Oklahoma (O.U.) recently purchased a comprehensive software system featuring various functions, including tracking of application processing, packaging of aid, notification, and funds management. Prior to acquisition of the new system, O. U.'s computer capability was limited to data gathering for reporting and funds management. As the application volume and workload grew, the need for increased computer assistance prompted a two-year investigation of several software systems. Another year passed between the planning phase and the decision to purchase, when implementation was begun. Yet, even with this extended selection in planning, the implementation was occasionally problematical. With a better understanding of the problems encountered, other institutions' moves to upgrade their computer functions should be facilitated.

Numerous issues should be considered before selecting the system and services needed for a financial aid operation; not all programs are appropriate for a given operation, and none will be the panacea to solve all problems. While the following presentation is not a definitive plan for successful computerization of a financial aid office, it is intended to give those institutions contemplating increased computer involvement a better understanding of the issues to be considered before purchasing a software system.

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ANALYSIS BEFORE IMPLEMENTATION

Before analyzing available systems, the management of a financial aid operation should review its present operation to determine whether additional computer support is appropriate. Needed is a brief, objective survey of current performance. The following questions must be answered: What functions are being performed to satisfaction? Which must be improved? What should the operation accomplish in the future? Will this accomplishment necessitate increased computerization or would a more efficient manual operation suffice? Because this assessment is the cornerstone for future analysis and recommendations, the data gathered must be accurate, complete and precise, and the evaluations made must be objective and realistic. Office goals should be defined, objectives stated, and problem areas identified.

Once this initial review has been accomplished, an identification of specific areas which require computer support and those which would be improved by computerization is appropriate. However, before a decision to computerize is reached, management not only must compare expected benefits with the benefits to be gleaned from improving existing manual procedures and the relative costs thereof, but also determine whether financial aid and institutional EDP personnel are capable of making the move to computerization. Frequently a realistic assessment of the current operation will lead to a discovery that computerization is not the answer. A reorganization of staff functions and revision of current procedures may produce a more efficient operation. Of particular concern here is the possibility that current operations may be compared with unrealistic expectations of personnel needs under a computerized system. Management may be influenced by vendor claims that "paper handling" will be reduced under a computer system whereas the antithesis may be true. For example, additional staff may be needed to handle an increased document and computer output load. Moreover, computerization should speed the paper flow, allowing consideration of more cases in less time, making the workload more seasonal but no less demanding during "busy seasons." A comprehensive study should be made to determine the number of staff required for each work unit and the expertise required within each position in that unit. It should not be assumed that installation of a new system will permit a reduction in staff positions.

If computerization appears appropriate, the next step is to establish a long-range plan for implementation, itemizing all existing manual operations to be converted, establishing specific goals and performance levels, and setting a time line for achieving desired results. At this stage it is imperative that all financial aid staff and institutional EDP staff actively be represented. Without the combined support, knowledge, and active participation of all personnel, implementation will be severely hindered. These two steps — realistic needs assessment and a long-range plan for implementation — are perhaps the most crucial to a successful effort because, without both steps, time and money may be wasted and undesirable personnel problems may arise.

After deciding which operations are to be computerized, management should carefully outline its requirements in a request for proposals from vendors. Specificity is essential to assist both the user in evaluating the proposals received and
the vendors in determining overall needs and requirements. As the evaluation of proposals is made, careful attention should be given to prices quoted for the system, service options outlined by the vendor, and the vendor’s ability and willingness to fill exactly those needs specified in the request for proposals. In addition, the evaluation team should begin to focus on an estimated implementation time frame, a “compatibility” analysis with the institution’s existing EDP functions, and a thorough outline of all implementation-oriented support services available to the user without additional cost. Moreover, the institution’s EDP staff should be directly involved with evaluation of proposals in order to contribute advice on technical aspects of each system.

At this stage, particular care must be given to the time frame involved. Vendors may try to do a “quick sale,” boasting of a smooth and efficient implementation time of a few months or less. If the decision is made to computerize an operation, caution is advisable: a gradual approach often will be best because it allows management the time to work out “bugs” at each stage before moving to more sophisticated phases when delays may cause catastrophic results. Users of computer systems are often eager to discuss problems encountered and to explain the solutions they found worked best. Therefore, reputable vendors of software programs should supply potential customers with a list of current users. Thorough investigation and planning prior to implementation will include a study of those systems which have been successfully installed, identifying the problems experienced, and plotting the similarities and differences relevant to the current implementation.

The potential buyer should be aware of differences between claims of the vendor and the actual experience of other users. The vendor often does not reveal that the time frame quoted is based on an ideal or perfect implementation. The prospective user should require a potential vendor to work with the institutional EDP staff to chart out a realistic time frame, remembering that everyday office operations must continue as in the past while implementation is taking place.

An additional feature which must be considered by the institutional EDP staff in evaluating proposals is “compatibility” with existing systems. Will the proposed system fit the present operating programs and hardware? Must the proposed software be rewritten in the prevailing institutional computer language, thus requiring many hours of EDP staff time for conversion? Can the present institutional EDP hardware accommodate the proposed system? What priority will be given to daily and weekly processing runs if the system is implemented? These questions must all be answered realistically by the vendor in consultation with the EDP staff in order for the institution to assess properly each system proposal.

A final feature to be considered in evaluating all proposals is the support services available from the vendor, such as training of existing staff, reprogramming, system maintenance, and consultation. These services may not be included in the purchase price quoted and may prove quite expensive. The user must determine which available services are essential to successful implementation of the system and which services the institutional EDP staff can provide. In addition, while the vendor may be the best equipped to offer necessary services and sup-
port, it must be realized that if the vendor is hundreds of miles away when problems occur, delays in their solution may result. The ideal situation is to obtain a commitment from the institutional EDP department to provide the full-time services of at least one of its analysts. That person should be available when problems occur and be responsible for working directly with the financial aid staff and the vendor during implementation.

At the end of these initial stages (review of the existing operation, identification of need and a detailed plan for computerization, and the solicitation and evaluation of proposals), the time frame for implementation, service support decisions, personnel commitments, and the cost of the system should be known. Only then may a decision whether to computerize further be intelligently made. As a final step prior to actual implementation, a report summarizing findings and reasons for selecting a specific system should be sent to all levels of university administration affected by the implementation or operation of the new system. Informing all persons affected will pay dividends when questions or problems arise; if the system does not immediately perform to expectations, it is difficult then for those disaffected to criticize decisions made earlier with their knowledge and, at the very least, with their tacit approval.

**IMPLEMENTATION**

The implementation phase should be the easiest part of computerization, if proper analysis and planning were performed. However, even in the best of circumstances there will be problems which were not anticipated in the planning phase. The following problems should all be avoidable if the user is aware of them at the beginning of the implementation process.

Even the best-managed computer installations may require fifteen to thirty months from initiation of planning to completed implementation. The temptation to want to hasten this process is universal. Administrators by nature hope to achieve immediate benefits from the computer system. Failure to realize or to appreciate the magnitude of the task may result in a crash program, almost certainly spawning judgment errors and oversights which will require timely and costly “patch up” work.

Personal problems also may occur as a consequence of inadequate training or of apprehension about the new system. Personnel preparation should receive considerable attention during both the planning and implementation phases. Employees who are allowed to understand how they “fit in” to the new system will generally accept changes with a minimum of resistance. However, failure to anticipate the normal resistance to change which is part of any new endeavor, especially when the personnel involved are not informed at the beginning as to what they may expect and how the system will affect their jobs, may result in serious personality and morale problems. Because the introduction of a new system will frequently result in a reorganization of office personnel, affecting levels or channels of responsibility, harmonious work relationships may be altered. Extreme unanticipated resistance may occur not just because an employee feels incapable of performing a new job, but also because each person is faced with the need to form new friendships and the challenge of being accepted by a new group.
Staff insecurity may be compounded by the frequently unavoidable threat to the employee's self-confidence attributable to a lack of knowledge and experience with computers. The fear of not being able to grasp the necessary skills required by the new system and the threat that the lack of knowledge may be viewed as a weakness cannot be overestimated. Fear of loss of status and prestige is an important reason for employee resistance and is simply unavoidable given the public's general perception of the complexities and mysteries of computers. Education, reassurance, and simplification whenever possible must be pursued consciously in order to minimize the consequences of this personnel problem.

A more difficult psychological problem to predict and deal with relates to the fact that experienced employees may feel threatened by change because the existing system provides them the respect of their less experienced peers. These experienced individuals often enjoy the dependence of less experienced employees who seek their information and advice. Under a new system, however, experienced employees may no longer be afforded this important, albeit somewhat intangible, perquisite because their knowledge of the system may be no greater than that of other workers. Alternatively, junior employees may perceive the opportunity to improve their relative stature which at the same time may increase their acceptance of the change while further reinforcing the resistance of their more senior counterparts. Imaginative readjustment of responsibilities may circumvent or minimize these problems, assuming management properly predicts or diagnoses their existence.

Overall, personnel problems may be lessened if employees are kept informed at all stages of the planning and implementation phases. Especially during the planning phase, regular staff meetings should be held with the objective of imparting the most current information regarding planned changes, how they will affect the operation, the benefits of the change, how various work units will be readjusted, and what training will be conducted. Employees should be encouraged to voice their opinions and to participate in planning the new system. Without question, while increasing management's time commitments, employee involvement throughout the change will minimize resistance; squelching rumors and affording some discussion about the changes being made through a forum wherein ideas and opinions may be heard is certain to lessen fear and resistance to the unknown.

Also from a personnel standpoint, the timing of changes made is important. It may be unwise to have several major portions of the implementation occurring at the same time because it upsets the equilibrium of the office and reduces productivity. Personnel should have time to become accustomed to each major change before another is attempted.

PUBLIC RELATIONS

Two final considerations relate to public relations. One aspect of this subject is the financial aid office's relationship with the institutional EDP operation. If the EDP staff is not supportive of the change nor willing to work closely with the financial aid staff, successful implementation will be difficult, if not impossible. To help ensure harmony, commitments from EDP staff should be agreed upon in writing and signed by the directors of the respective EDP and financial
aid operations. By detailing what is expected by each side, both the financial aid and the EDP staff should be protected from disagreements or misinterpretations at a later date.

The second aspect of protecting good relations stems from the easily overlooked fact that the financial aid operation is a student service. It should not be forgotten that service to students cannot take a back seat during the process of planning and implementation. Because service may be affected at certain stages, public relations should be a part of planning. An article in the school newspaper would be an easy medium to inform the university community about the change and its effects. Not only will the community be informed that action is being taken to improve financial aid services, but the article also will indirectly warn students that delays or interruptions may be experienced during transition and presumably will curry their forgiveness or tolerance.

CONCLUSION

This discussion has attempted to alert financial aid offices about various considerations which must be addressed before a final decision is made to computerize an operation. While each implementation decision will differ — and therefore not all concerns are herein addressed — it is hoped that the experiences revealed may help others in their decision whether to purchase and install software systems as part of their financial aid operations.

REFERENCES