

R E P O R T

OF THE LEGISLATIVE FISCAL COMMITTEE

October 14, 1982

The Legislative Fiscal Committee met at 9:30 a.m. on October 14, 1982, without a quorum present, to discuss and recommend the appointment of a Legislative Fiscal Director and hear a request for authorization for reimbursement of actual and necessary expenses for legislators and legislative staff who are authorized to attend a Conference on Prison Overcrowding sponsored by the National Conference on Crime and Delinquency. The Conference will be held in Iowa. The members of the Legislative Fiscal Committee who were present, by consensus, recommends that:

1. The Legislative Council authorize the reimbursement of actual and necessary expenses to legislators and legislative staff who are authorized to attend the Conference on Prison Overcrowding sponsored by the National Conference on Crime and Delinquency.

2. Mr. Dennis C. Prouty be appointed to the position of Legislative Fiscal Director at an annual salary of \$44,460, effective with the pay period beginning November 5, 1982. The salary is subject to review by the Service Committee and the Legislative Council in the same manner as salaries of other employees subject to the jurisdiction of the Council.

Respectfully submitted,

RICHARD W. WELDEN
Chairperson

M E M O R A N D U M

RE: DEVELOPMENT OF LEGISLATIVE COMPUTER SYSTEM

FROM: SERGE H. GARRISON, DIRECTOR, LEGISLATIVE SERVICE BUREAU

DATE: OCTOBER 14, 1982

On February 23, 1982 the Legislative Council approved a report of the Administration Committee relating to the duties of the Code Editor and the publication of the Code which included a recommendation that the Acting Code Editor and the Division of Data Processing "provide a computer program to be used in publishing the 1985 Code which will allow the update of the data base of the Code to be prepared by the Service Bureau staff negating the need to execute a contract with a private vendor for this service."

Pursuant to this direction, I contacted Mr. Dale Nelson of the Comptroller's Data Processing Division and indicated that the Legislative Council desired that a program be developed which would allow the Bureau to update its data base. Mr. Nelson assigned programming staff to work to develop the programs. In order to understand the problems associated with this project, it appears necessary to review the total history of Iowa's legislative bill drafting computer program.

In the middle 1960's, the Iowa Legislature contracted with Aspen System Corporation to provide a data base of the Code which could be searched for key words which would indicate within the total volumes of the Code certain sections relating to certain subject matters. At this time, the data base was used for search purposes only, not for bill drafting. Subsequent to that time, Data Processing used that data base and converted it for use in the drafting of legislation. This allowed computer typists to draw sections from the computer and allowed for automatic updating of those sections with very little retyping and proofreading. At that time, the Legislative Service Bureau was using IBM 2740 machines which produced only a hard copy and were very inferior to the machines which are now used. Over the years, Data Processing has provided new programs and new machines to develop its bill typing program to the point where it has become, in my opinion, one of the better programs in use in the United States. The program was developed primarily by Mr. Bill Keathley, who left the employment of Data Processing several years ago. To his credit it should be noted that he provided a program which revolutionized the bill drafting procedures in the Bureau, and as noted, exceeds that of many states. One aspect that he built into the program is the automatic update of the text after it has been amended, which is a program no other state has. Thus, when a bill has been amended in one house, the operator in the House or in the Senate can instruct the computer to update the text and it will do so and renumber sections automatically. This has been an extremely useful program

and has provided the speed in making copy available to the legislators which they have become very accustomed to and will most likely not want to give up.

Unfortunately, in developing this program, Mr. Keathley did not document the program adequately, which means that he did not write down all the various codes that are used to produce the ability to edit, amend, collate, and other features of the program which have proved to be so useful and so accurate. Thus, we presently have a program which is superior in many respects, but is very difficult to modify to take advantage of new requirements.

Subsequent to Mr. Keathley leaving the state, Linda Schlenker assumed the legislative programming role and has performed exceptionally well in keeping the program up and helping to provide the services to the Legislature. We have bought Megadata computer terminals which were specifically designed for use for the Iowa Legislature and we have brought in separate IBM printers which allows us to send the documents that we are preparing via computer to the printers to play them out basically at any time of the day we wish which has saved us a great deal of time and, in addition, has provided us with text which is easy to copy and in which there are few typographical errors. The old IBM 2740's operated on a typewriter procedure which means that the keys did not always strike uniformly and since the machines were used at a greater volume than they had been built for, they required constant maintenance. Megadata terminals have been used in only three states; those being Iowa, Minnesota, and Indiana. Indiana has now dropped the Megadata terminals for some of the reasons Iowa will drop them, those reasons being maintenance problems, design weaknesses, and inadequate parts supply.

The program which is presently in use in Iowa requires rather simple commands to produce documents required as compared to some programs found in business and in other states. The Legislative Service Bureau has been able to reduce its number of text processors from seven to four because of the quality of the program and, as a result, has saved a great amount of money in personnel cost. Since the House of Representatives has now obtained what is known as "interfacing", the House Journal Room has been able to draw the text of the amendments into its system and reproduce them for the Journal without having to retype them in total or proofread them. Prior to adding this capability to the system, it was necessary for the House to have a number of people working many extra hours of overtime and the result in cost to the House was substantial. Thus, through the improvement in the program and equipment, an estimated 57% of overtime has been eliminated in the House Journal Room since 1978. This is a very encouraging figure when considering the fact amendments have increased in number, length, and complexity.

It is worth noting that legislative personnel in Iowa, which includes the personnel of the House, the Senate, and the Legislative Service Bureau, probably produce as much as any of the many

states in the United States in the form of legislative documents with two-thirds fewer people. The reason we have been able to do this is because of the excellent computer program and the fact that we have qualified personnel who have the capabilities of working with a somewhat complex computer system to produce the documents required. We have reviewed the operations in several states, and we find that they use many more computer text processors to produce the same kinds of documents that we produce because the programs of those states are so complex, or perhaps the quality of the employees is less and they are only capable of performing a limited number of tasks. Thus, while overall costs of the General Assembly may have increased slightly, there have been many cost-saving applications which have kept the cost of the General Assembly down. However, the ability to produce legislative documents in a substantially accurate condition and at a very demanding rate of speed has not been inhibited.

There are, however, concerns with proceeding with the present system. Of primary concern to Data Processing is the fact that if the Division would lose key programmers, it would have no one available who has knowledge of the total program and it would be very difficult to maintain and modify. Another concern is the inability to maintain the Megadata terminals, in fact both Indiana and Minnesota will be dropping the terminals, because the company may not be able to provide services for the terminals in the future. The Data Processing Division feels that the present program is costly and because of a better probability the programs can be maintained, it is necessary to have a type of program that can be supported by an outside vender. Thus, there would not be total reliance on key personnel who might leave the employ of the state, particularly in these times when experienced computer programmers are at a premium and are being hired away from government by private business. In addition, the computer software which is presently used for the legislative program and is located in the Hoover building is becoming obsolete and costly. Programmers do not wish to work on programs that are so specialized that they would have no application outside of state government. Data Processing provides services to all of the State House complex and cannot exclusively devote three persons' time to a specialized program such as maintained by the Legislature or which may be maintained by a specific department. They must work for all departments. However, Data Processing has always considered the legislative programs to be priority programs and has done its very best to provide the services required. The down time has been greatly improved in recent years and there have been modifications to the systems which have made it very convenient for the drafting, amending, daily journal preparation, enrolling and publication processes.

This brings us to the immediate problem of preparing a program which would allow the Legislative Service Bureau to update its own data base. In order to develop this program, it became apparent to Data Processing that it would be necessary to change the program upon which the bill drafting system is dependent and this required

working with an undocumented system. Thus, it is not cost justified to provide the update capability without developing a new program.

Last spring, while the General Assembly was still in session, Data Processing initiated procedures which were required to provide the update capability that the Legislative Council was seeking. It contacted a number of vendors and found IBM to be most compatible with present programs which would provide the services that the General Assembly is accustomed to and, in addition, the update capability. These procedures have been worked on and reviewed throughout the summer and into the fall by many persons representing Data Processing, IBM, Legislative Service Bureau, the Senate, and the House. It is known that the Code update capability can be provided, however, there are a number of disadvantages with the new program as compared to the existing program.

At the outset of this endeavor, it was agreed that the ability to provide the automatic amendments must be maintained in the system. It was also agreed that whatever disadvantages in the new system might be prevalent should be offset by a corresponding number of advantages. Deadlines were established so that the program could be operational for the 1983 legislative session. As of this date, the ability to automatically amend has not been accomplished. It was agreed that if the system being developed would substantially inhibit the normal operations of the Service Bureau, Senate, and House, the present system would be put back into use. At this point in time I am fearful that the advantages in the new system do not outweigh the disadvantages and will affect the ability of the Bureau to perform its normal services or might require additional staff persons. There are a number of advantages to the new system. For instance, the following gains are perceived:

1. The Code update capability can be provided which would be an initial savings of approximately \$70,000 to \$100,000 in contracting cost for the update of the data base and will be a time saver in preparation of the Code. Some of these costs are recovered through sales of the Code.

2. Having a system which can be supported by an outside vendor allows for providing repair in the future and provides the security that the systems could still be maintained even if a person would leave Data Processing.

3. The hardware and the software would be more reliable since a company such as IBM is not anticipated to go out of business and can easily maintain its programs and hardware.

4. As improvements are made in data processing programs by a company such as IBM, those enhancements can automatically be added to existing programs.

5. The programs being developed are being documented which allows for changes in the future.

6. The program will provide a collating application for the Senate and House and will allow interfacing for the Journal and is a vast improvement over the existing system.

There are a number of disadvantages with this system which must be considered. They are:

1. The automatic amendment process has not yet been demonstrated and I am fearful that it may not be in place in a timely manner. This might well require additional personnel in the House and the Senate with the resulting cost that it would entail.

2. There are losses of certain key functions for editing which will slow the bill preparation substantially and also the loss of line numbers which have been previously indicated on the CRT scope which will slow us down in doing the editing required. These are limitations imposed by the vendor system and cannot be overcome.

3. There is loss of text on an individual screen to edit before the text is entered which will also slow the Bureau down. This is also a vendor limitation.

4. The legislative department may be much more dependent on Data Processing staff for after hour work because programmers have to respond to breakdowns and they may not be available during the abnormal hours that we sometimes must work.

5. Projected developments necessary for the system could be delayed by unforeseen happenings.

I know that the programmers are working in good faith and feel they can develop these features by dates indicated. However, I have seen many instances where the good intentions of Data Processing and other people to have certain things available by definite dates have not always been met. The personnel of the Legislative Service Bureau and the personnel of the House and the Senate have certain fears that if certain developments are not made by given dates, the Legislature and its staff could be handicapped in a year when the demands on the staff will most likely be very excessive. As much as we would like to have a number of the features that have been developed, we still must be in full production as least one month prior to the session in the Service Bureau and by the start of the session in both the House and the Senate. The General Assembly has become very accustomed to the delivery schedules which have been maintained in recent years and often whether or not a proposal passes is dependent upon the delivery of documents within a given time. I fear that if the new system is initiated at this time, we might not be able to deliver documents within the usual amount of time. In the Service Bureau, we feel that because of new procedures that will be required in editing and queueing documents, we will lose approximately 20% of

production time. We do not feel that an additional employee will be able to overcome this loss of time because of the training period involved and the newness of the system. I had planned for a number of years that it might be necessary to employ an additional person when Code publication was moved into this office, but I have not taken any steps to do so at the present time. I may have to do this in the future. We probably use fewer text processors to produce the volume of work that we do than almost any state and the same can be said for the House and the Senate. If the programs would not function as envisioned, or perhaps even as envisioned in some cases, it might require additional personnel in the legislative department. Of course, the additional personnel could be balanced off by the reduction or the fact that there would be no need to execute an update contract in the future. However, until we have, in fact, the use of the update feature, we cannot be sure that it would not be necessary to have at least one or two years of the update contract in place.

One of the distinct advantages that the update capability will provide will be that it will speed up the process in publication of the Code. I had hoped to greatly speed up the process of Code publication this year, but I will probably not be able to meet the deadlines that I had established although I feel quite confident that a Code will be available before the start of the session. I believe I have identified many of the problems that are inherent in publishing the Code, and I could not have done so had I not first been given the opportunity to oversee the publication work. I feel that the process of doing an annual update following the 1983 Session will reduce the time required to publish the Code in 1985 because we will have done a substantial amount of the work following the first session of the General Assembly. We will still publish a Code this year much faster than was done two years ago, but not in the time frame that I had hoped it would be published.

Whether or not we proceed to implement the new system to provide the update capability, or revert to the present system which would allow the existing system and meet some of the deadlines to which the General Assembly is accustomed, is a decision which must be made by the Legislative Council. For reasons which I will discuss later, efforts to provide new programs and bring in new equipment must be continued even if we decide to use the present system for the next General Assembly.

My recommendation is that we use the present system this legislative session, including the Megadata terminals, and plan to convert to a new system between the next two sessions. This will present some difficulties because when we change systems between sessions, the new amendment process may not be applicable to bills produced under the present system. This will require reprinting of bills which are introduced the first session and acted upon the second session. Keep in mind that this is a small percentage of total bills introduced. This is an additional expense, but hopefully will be offset by savings elsewhere such as the update capability and perhaps changes in procedures being considered by the Legislative Procedures Study Committee.

I regret we cannot implement the new system, but there are too many indefinite areas. If parts of the new system could not be implemented, there could be political ramifications as well as monetary ones. I think it best to play it safe and time is running out for development. I regret that Data Processing personnel have worked so hard to develop a system which I cannot recommend, but practical considerations must prevail.

As previously indicated, the present program will be difficult to maintain in the future because of the possibility of not having programmers who can maintain it and the obsolescence of the equipment. We cannot continue to depend upon Megadata equipment and the ability to maintain the present program without some changes. Data Processing does not feel that it can provide programmers with the necessary skills to work on the present program in the future and would have a great amount of difficulty if the present primary programmer should leave the employment of the state. Iowa, unlike many other states, does not have a legislative data processing department, but depends upon Data Processing. I have hopes of being able to provide assistance to Data Processing by training Gary Kaufman in programming, but I know he will not be able to assume all legislative programming functions. Data Processing provides all of the equipment, the programs, and the computer backup for the legislative system. The funds to maintain the system are contained in the appropriation to Data Processing and would be substantial if the legislative branch established its own system since Data Processing uses multi-disciplined people who work for both the executive and the legislative branch. Other states have purchased vendor packages at substantial prices whereas Iowa has developed its own system. Some states have also developed their own systems and while there are similarities between the states, no one system appears to be exactly the same and because of the differences in procedures it is not necessary that they have some of the procedures that Iowa has. If Iowa were to purchase a vendor package it could cost as much as \$200,000 to \$300,000 and that does not include equipment, maintenance, and modifications. If the Council agrees with my recommendation, I believe the Council, through its Administration Committee, and in cooperation with Data Processing and the legislative departments, should continue to study the development of the new system or the enhancement of the existing system, and plan on using new and different equipment. I believe that we should provide the update procedure originally contemplated. However, I do not believe that we should inhibit our ability to provide for this legislative session in order to have the update capability. First things must come first, and thus we must be able to produce the legislative documents before we can publish them. It may be that it will be necessary for the General Assembly to invest funds in the future toward the development of programs and the purchase of equipment. This can be done either by the General Assembly expending its own funds or providing within the appropriation to Data Processing sufficient funds to develop the programs.

If we do not continue to study new programs and equipment, the General Assembly could find itself in the future without any program and that would be disasterous because it could well extend the session, require additional personnel, and result in documents being produced which are not timely or accurate. It also could substantially set back the publication procedure of the Code.