

University Hospital Bond Issue

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Speaker H. Craig Moody

March 13, 1992

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Speaker H. Craig Moody
House of Representatives
State Capitol Bldg.
Salt Lake City, UT 84114

Subject: University Hospital Bond Issue (Report #92-03)

Dear Speaker Moody:

We have completed our review of the University of Utah Hospital's bond issue. We found that although the bonding process followed by the hospital complied with state law and Board of Regent's regulations, it was different from that usually followed in higher education revenue bond issues. Bonds have normally been issued under the Revenue Bond Act (Title 53B, Chapter 21 of the Utah Code which requires legislative approval. However, this particular set of hospital bonds was issued using the authority of the Industrial Facilities Development Act (Title 11, Chapter 17 of the Utah Code which act specifically allows the University of Utah and Utah State University to enter into interlocal financing agreements without obtaining prior legislative approval. As a result of the bonding process that was followed, misunderstandings arose between several legislators and higher education officials. To avoid future misunderstandings, the hospital needs to keep legislators better informed as the bonding process proceeds or the Legislature should amend the statute to require legislative approval before bonds can be issued.

Our review also found that bonding was a prudent financial decision because it saved the hospital money and allowed it to expand programs and modernize equipment. Even greater savings are possible, however, if in the future higher education's revenue bonds are issued as

system-wide pledges or, if the Legislature and the Governor increase the amount of general obligation bonding as opposed to revenue bonding. Also, though we believe the hospital needs to do a better job of billing and collecting patient accounts, the hospital does appear to be financially sound and should be able to repay the bonds.

In August 1991, the University Hospital obtained about \$30 million in bond funds to be used for various purposes. The hospital is pledged to pay an average of \$3.4 million per year to repay the bonds, or about 2 percent of the hospital's \$167 million annual net revenue. Part of the bond money went to pay off equipment leases and university loans which carried a higher interest rate than the bonds. Another part is being used to help construct a building which was previously approved by the Legislature subject to obtaining financing. A third portion was used to purchase new equipment. The final portion is to be used for future equipment acquisitions and building remodeling. By using bond money for these projects, the hospital hopes to save money by paying lower financing charges, to modernize some equipment, to complete construction on a building, and to build-up equipment reserve funds over several years which could be used to construct a new medical care facility provided legislative approval is obtained. In our opinion, the hospital officials included an additional \$10 million to the bond which allows them to build a new medical care facility provided legislative authorization is obtained.

Although Legal, the Process Was Not Typical

Although the hospital has authority to issue bonds and enter into borrowing agreements with local governments without legislative approval by not doing so, misunderstandings occurred. In the past, the Board of Regents has usually obtained legislative approval before revenue bonds are issued. When this particular hospital bond was issued, the Legislature was not formally consulted and misunderstandings arose. To avoid these misunderstandings in the future, the hospital should keep the Legislature fully apprised of their bonding plans, or the Legislature should add language to Title 11, Chapter 17 of the «3»Utah Code«1» requiring legislative approval before a bond is issued.

Utah Code Gives the Hospital Authority Without Obtaining Prior Legislative Approval

The University of Utah has the authority to obtain capital from the issuance of bonds without prior legislative approval. The Industrial Facilities and Development Act (IFDA) gives the University of Utah and Utah State University the authority to obtain capital from a bond issue with Board of Regents', but not necessarily legislative, approval. Revenue bonds issued by colleges and universities are normally issued under authority of the Revenue Bond Act (Title 53B, Chapter 21) which requires legislative approval of the bond. According to the bond attorneys used on this particular issue as well as an attorney with Legislative Research and

General Counsel, the IFDA gives the University of Utah and Utah State University the authority to obtain bond revenues through financing agreements with local government associations. These attorneys said the IFDA gives the university this authority without having to obtain legislative approval.

The hospital obtained capital from bonds issued by the Municipal Finance Cooperative (MFA) at favorable terms. The MFA is a pool of money, obtained through issuing tax-exempt bonds, which local governments access for various improvement projects. The MFA was created in 1986 and has authority to issue tax-exempt bonds. Through a complicated financial transaction the hospital was able to obtain financing using the MFA with payment terms which the state's financial advisor and our own analysis shows were favorable.

Because they were using authority of the IFDA, the hospital did not obtain legislative approval prior to issuance. However, hospital and university administrators said they discussed their plans with the Legislative Fiscal Analyst prior to issuance. Also, when the hospital became aware that several legislators were concerned about the bond, hospital and university administrators met with these individuals and discussed their concerns. In retrospect, the hospital's administrator said he would better advise the Legislature prior to the issuance of future bonds.

Because prior approval was not required, several misunderstandings occurred. The following three sections detail these issues and the results of our fieldwork.

Premarketing Caused Confusion

Legislators were unsure why premarketing was required and were concerned that the bonds may have actually been sold prior to issuance. The Board of Regents was prohibited from approving bond parameters as normally done, but rather, had to approve exact bond terms. These terms are established through premarketing, in which the entity issuing a bond contacts, through its underwriter, potential buyers to ascertain what terms are needed to sell the bond. Because the board normally approved bond parameters and not exact terms, legislators were unsure why premarketing was required.

Before the current bonds were issued, revenue bond proposals were presented to the Board of Regents for approval of final bond amounts, terms, and interest rates within narrowly prescribed parameters. (For instance, the authorizing resolution might prescribe an average interest rate, bond maturity, and underwriter's fees not to exceed a certain amount). Once the board approved the parameters, bonds could be issued. However, at the time the board was considering the university hospital bond issue, a bond attorney, recently hired, said establishing bond parameters is an illegal delegation of authority. The Board of Regents can only approve or disapprove exact bond terms. Consequently, the bonds were pre-marketed to determine what terms would be acceptable to potential buyers and then these terms were presented to the Board of Regents.

The attorney general assigned to higher education believes the opinion requiring premarketing is overly conservative and the Board of Regents had authority to approve based on bond parameters. However, he believes the Board of Regents was correct in premarketing the bonds because premarketing was necessary according to the particular bond attorney used. This controversy should be resolved in the future through proposed changes in the statute.

Aside from the legal aspects, the state's financial advisor said premarketing was beneficial on this particular issue. Premarketing is an important part of a "negotiated sale". A negotiated sale is where the entity issuing bonds contracts with a single underwriter to sell the bonds. The underwriter's fees for selling the bonds are negotiated. The university hospital bonds were sold as part of a negotiated sale and consequently, premarketing was used. Premarketing is beneficial because it helps establish a reasonable market rate assuring that the interests of both the underwriter, who wants to sell the bonds as quickly as possible, and the issuer, who wants to pay as low an interest rate as possible, are protected. For example, the issuer is protected on a negotiated sale by premarketing because without premarketing, the issuer must rely solely on the rates obtained by the underwriter at the time of sale. The underwriter could offer a greater discount to bond buyers than necessary to insure that the underwriter will not have unsold bonds. Premarketing, however, establishes a ceiling on interest rates which the underwriter cannot exceed.

According to the state's financial advisor and Board of Regent's minutes, premarketing was done on July 16 and 17, 1991. Our documentation shows that the Board of Regents approved the terms on July 19, 1991 and the bonds were actually sold on August 1, 1991.

Legislature Paid-Off Loans

Another concern was that in the past the Legislature has appropriated funds to repay loans. Current legislative leadership wanted to make certain this did not happen again. We believe the hospital will be able to pay off the bond with estimated hospital revenues. Between 1976 and 1978 the hospital received several loans from the state treasurer's office because accounts receivable collections were slow. In fiscal year 1980, the Legislature appropriated about \$3,000,000 to repay the loans. We did not find any legislative appropriations for working capital for the past 13 years. Our analysis indicate the hospital should be able to pay back the bond.

Increasing Bond Size to Build-up Funding To Construct a Building Created Legislative Concern

Another concern raised by legislators is that they feared the hospital was attempting to circumvent the legislative approval process. One legislator said using the money from a bond

which the Legislature has not authorized to build up funds for future construction circumvents the legislative process.

Sometime prior to finalizing the August 1991 bond, hospital officials recognized the future need for a medical care building and felt it should be included in the bond package. The hospital administrator felt that overhead costs would be saved if the hospital only issued one bond for both equipment and a proposed building, rather than issuing one bond for equipment and then issuing another bond later for construction of a building.

Although no bonded funds will be directly used to construct a building, it is clear the availability of funds for this purpose is the result of the \$10 million increase in the bonding package. The hospital plans to purchase equipment with the bond proceeds and depreciate this equipment to build the depreciation account. The hospital deposits \$283,000 monthly into a segregated part of the depreciation fund called the Expansion Reserve Fund for equipment purchases. Since the \$10 million added to the bond will be used for equipment purchases, our estimates show this account will have between \$11 and \$12 million within a three-year period.

We believe there are savings if the Legislature approves construction of the medical care building. First, as we point out in a preceding section, there are savings through consolidating the two bond issues. Overhead costs, such as payment insurance, would be reduced. Also, there may be interest rate savings. Second, since the hospital used funds from the MFA, the hospital can receive favorable arbitrage. Arbitrage is earned when uncommitted bond funds are invested at an interest rate which is higher than the rate paid on the bond. According to bond experts, federal regulations limit favorable arbitrage in most instances with the exception of bond moneys received from certain interlocal pools of money such as the MFA. Currently, the hospital is not receiving favorable arbitrage because interest rates on investments are too low. However, in the future, if interest rates rise, the hospital could make more from investing bond proceeds than they are paying in interest costs and therefore, make favorable arbitrage.

However, if the Legislature does not approve the building, the hospital could repay the bond early. In this instance, the hospital will have incurred the costs of bonding for the extra \$10 million without receiving the full benefits of the bond.

In state government, legislative authorization to build is usually obtained at the same time or before legislative funding is given. However, in the case of the university hospital, funding is potentially being built up from internal operations before legislative authorization to build is given. Even though the hospital is planning to build up its depreciation accounts, it must still obtain legislative approval to construct a building. Both verbal and written comments from university and hospital administrators, including official documents sent to the Board of Regents, indicate that university officials recognize this responsibility and plan to obtain prior legislative approval. In fact, part of the current bond proceeds are being used to construct a portion of a hospital clinic which construction was approved by the Legislature in 1988.

If the Legislature wants to make certain its authorization to construct a facility is given at

the same time or before funding is obtained, it will have to amend IFDA of the Utah Code or the university will have to make certain the Legislature is better informed as bonding proceeds.

Several Options Are Available to Avoid Future Misunderstandings

To avoid future misunderstandings with the Legislature, university and hospital administrators need to obtain legislative approval before financing is obtained. This approval could be mandated by statute or the hospital could simply make it a practice to obtain legislative approval. Regardless of the method chosen, the solution must encompass the Legislature's need for information as well as maintain the university's flexibility needed to obtain the best terms possible depending on market conditions.

The Legislature could change the statute to explicitly require legislative approval before financing is obtained by adding language to Title 11 of the Utah Code. If the Legislature does decide to do this, we believe the Legislature should continue to allow the institutions flexibility in being able to issue bonds at advantageous times. Currently, when the Legislature approves a revenue bond issue, it gives the Board of Regents authority to issue the bond. The Board has the latitude to issue the bonds when it feels conditions are most favorable. This flexibility should be maintained.

Another option is for the Legislature not to change any statutes, but reach an understanding with the institutions that they are to obtain legislative approval before obtaining financing through local government financing arrangements such as the MFC.

Some states formally require legislative approval and others do not. For example, in Washington prior approval from the Legislature is required because the hospital's projects have been included in the state's general obligation bond issues. However, this is different than in Colorado, where the hospital can issue up to \$60 million of tax-exempt revenue bonds with Board of Regents', but not necessarily legislative approval.

Bonding Was a Prudent Financial Decision

Besides being legal, bonding was a prudent financial decision. This section compares bonding to alternative sources of funding and does not consider the impact of future legislative action concerning the construction of a new medical care building. The University Hospital bond provided the hospital a cost-effective way to finance its capital acquisitions and saved money by refinancing current obligations. Other university hospitals recognize this approach as a way to save money and finance their capital needs. In the future, even greater savings may be achieved by consolidating bond issues through the state or the Board of Regents. Finally, in another

related area of legislative concern, we found that the bond is paid back in time periods which are fairly consistent to the life of the equipment or projects financed.

We focused our review on evaluating the bond as a means of financing debt. We did not attempt to determine whether the hospital could have gotten a \$30 million legislative appropriation for the projects or whether the hospital could have saved the money from operations to fund these projects in the future. Both of these options are too uncertain for us to be able to gather reliable data and express a meaningful opinion.

The University Hospital is using the proceeds of the \$30 million bond issue to finance a variety of projects. Figure I shows projects the bond proceeds are to finance.

Figure I

These projects will be undertaken to further the hospital's teaching, research, and health care missions. Projects financed include a portion of an eye center building, bone marrow transplant equipment and facility, refinancing of outstanding obligations, and equipment purchases to modernize technology.

Bonding Provided the Hospital With Good Interest Rates

Since the University Hospital is a tax-exempt entity, it can issue bonds at tax-exempt rates, which are generally lower than the taxable rates conventional borrowers pay. The hospital paid between 6.41 and 6.95 percent interest on the bonds. These are the rates associated with the cash flows of the bond issue and are different depending on whether all issuance fees and costs are included. However, both of these rates are lower than other financing options available to the University Hospital at the time. These options included: (1) obtaining a loan from the university; (2) obtaining a conventional bank loan; (3) obtaining leases.

A loan from the university would have been more costly. The university's investment manager said the university would have charged the hospital an interest rate of 7.92 percent for money borrowed during fiscal year 1992. This rate is equal to the rate of return on the university's cash management and income pool funds for the prior fiscal year.

A conventional bank loan would likewise have been more expensive. To gauge the cost of a conventional bank loan, we used the prime interest rate (the rate banks charge to major corporate clients) in July and August of 1991. Banks generally do not loan money at less than the prime rate. In fact, the university hospital in Colorado has negotiated a rate of 1.5 percent above the prime rate to finance purchase of equipment. During this time, the prime interest rate was at 8.5 percent, which was at least 1.5 percent higher than the bond interest rate.

Finally, a group which arranges leases for hospitals nationwide, the University Hospital Consortium, would have charged more than the bond interest rates. This group reported that the average equipment lease rate during this time was 7.25 percent. In comparison with these other financing approaches it appears that bonding provided the University of Utah Hospital with the lowest cost method of financing its capital needs.

In fact, because of the lower bond interest rates, the hospital is already achieving some savings. Over \$6.5 million of the bond issue was used by the hospital to pay off existing leases and obligations. In July 1991, the hospital had \$3,575,997 in outstanding equipment leases, and \$3,080,325 in outstanding notes to the University of Utah. The interest rates on the loans were over 8 percent. The interest rates on the leases were between 7 and 10 percent. By using bond

proceeds obtained at a lower interest rate to retire these obligations, we estimate the hospital will realize a savings of up to \$300,000 over the life of the old leases and obligations.

In addition to comparing the actual interest costs to other financing options, we also looked at other western university teaching hospitals to determine if debt is used to finance operations. Each of the university hospitals we contacted, Colorado, Washington, Arizona, Oregon, and San Francisco, indicated they use various types of debt financing options. They use general obligation bonds, revenue bonds, certificates of participation (which are less secure revenue bonds), bank loans or a combination thereof.

Other States Achieve Savings by Consolidating

Even though the hospital saved money through bonding, greater savings to the hospital and other higher education institutions may be available through consolidated bonding. Other western states have lowered rates for debt service by joining all institutions (including the institutions' hospitals) together in a higher education system-wide revenue obligation bond. Also, hospitals in some states finance debt through the state's general obligation bond issue. Consolidating the bond results in lower overhead and interest rates than what are generally available for a single institution or hospital.

For example, the University of California's hospitals issue debt through a University of California system-wide bond issue. Each year the University of California system prioritizes requests from all institutions including the hospitals and issues a system-wide bond, with each individual institution pledged to pay back its share. Hospitals in both Washington and Oregon finance debt through the state's general obligation issue, with revenue pledged from the hospitals to pay the bonds.

Consolidating debt generally results in overhead and interest savings. For example, the overhead and payment insurance costs on the University Hospital bond alone totalled \$627,000; consolidation could have reduced these costs by at least \$55,000.

Using the market rates for tax-exempt bonds we estimate interest savings. For example, as of July 1991 the interest rate on tax-exempt revenue bonds rated A with a 10-year maturity was 6.55 percent. However, if the rating was improved to AA (possibly through consolidating bond issues) the interest rate is lowered to 6.45 percent. As of June 30, 1991, the colleges in Utah's system of higher education had approximately \$62 million in revenue obligation bonds outstanding. We believe if future issues were consolidated into a higher education bond, economies could be achieved. With the revenues from all of Utah's participating colleges and universities pledged against these issues, we believe that interest savings could be achieved.

Payments Match Project Lives

Finally, to answer a legislative concern, we compared the payback period of the bond with the life of the projects being financed. The principal payback of the bond is staggered over the 15-year period. To determine what assets are financed over the long term, we reviewed the projects financed in relation to the principal payback schedule. Though audit time available did not allow us to evaluate the lives of the assets in detail, our review showed that the principal payments fairly closely match the lives of the various projects financed.

After ten years about half the bond will be paid off (\$15,600,000). The equipment acquisitions (\$4,153,686) plus the refinancing of the leases, loans, and issuance costs (\$7,528,937) total \$11,682,623. Comparing the amount of the bond principal paid off after ten years with the equipment already acquired indicates that payouts are actually greater than projects. Our conclusion, of course, is based on the known equipment acquisitions. The hospital is purchasing equipment in the future which will have an impact on the payout versus project lives comparison.

Debt Financing Used to Expand and Modernize

In addition to being a good financial decision, the bond issue was used to expand the services provided and modernize equipment. Over the past decade, the volume and type of services provided by the hospital have increased. At the same time, obtaining full and timely reimbursement for services has become more difficult. Consequently, the hospital has had to use debt to expand its services and modernize its equipment. Without obtaining the equipment from bond proceeds, it appears the hospital's teaching, research and patient care missions would have suffered. For instance, much of the bond proceeds were used to purchase equipment for new or expanded programs. We took a sample of some of the major pieces of equipment purchased through the bond issue, spoke to the equipment users, and observed some of the equipment in use. Verbal and written justification for the equipment purchases appears reasonable and includes replacing the technically outdated equipment to fulfill the hospital's mission of teaching and research. As we have mentioned previously and show in more detail in the next section, other teaching hospitals have also bonded to expand services and modernize equipment.

The services provided by the hospital have grown. Both the overall number of patients served and the number of new and specialized programs have grown over the past decade. Figure II shows the increase in inpatient admissions and outpatient visits.

Figure II

Besides seeing more patients, the hospital has added 16 new clinical programs in the past 7 years. Two examples of new programs are the bone marrow transplantation program begun in 1991 and the obstetrics diagnostic center established in 1989.

The hospital has had an average annual revenue increase of 16 percent from 1984 to 1991. Of this increase, 6 percent was a result of rate increases, while 10 percent was a result of volume increases, expanded programs, and new programs.

At the same time that the hospital has expanded services, it has had increasing difficulty in collecting the full amount charged. Insurance carriers, Medicaid, and Medicare are more reluctant to pay full charges and take longer to make payment. In fact, the amount of adjustments (the difference between the amount the hospital bills and the amount collected at a point in time) has increased from \$3.5 million in 1982 to \$53 million in 1991. However, even with this adjustment, the hospital is still making a profit. Additionally, the amount of state appropriation for medical education has not kept up with actual expenses. For instance, in 1991 expenses totalled \$4.3 million whereas revenues only totalled \$3.0 million. Finally, the number of unfunded patients has increased from 1.5 percent of total revenue to 6.5 percent. This puts the hospital in a position where it is often reimbursed for less than what patient care costs.

The problems with getting timely and adequate reimbursement are not unique to the University Hospital. Teaching hospitals in other states experience these same difficulties. Our review showed that the hospital's mix of Medicaid, Medicare, and unfunded is fairly typical for teaching hospitals. In addition, many nonteaching hospitals in Utah are likewise experiencing difficulties getting paid. Profit margin (the difference between income and expenses) is one indication of this difficulty. Similar to the university hospital, income to these hospitals is reduced because of what Medicaid, Medicare, and insurance carriers will not pay or are slow in paying. Consequently, profit margins have been reduced. A review of the major hospitals in the state shows that many hospitals are operating on small profit margins.

Teaching hospitals outside of Utah have had to bond in order to expand their facilities and modernize their equipment. As we note in this report, other teaching hospital's are using debt to finance expansion and modernization. In fact, as we show in the next section the University Hospital's percentage of debt is in line with other teaching hospitals.

The Hospital Should Be Able to Pay Bond Back Despite Concerns With Accounts Receivable

Despite the pressures to provide more services and the difficulty in obtaining collections, the hospital should be able to repay the bond. Our comparison of University Hospital financial ratios with those of other hospitals, as well as the bond raters' analyses, indicate the hospital is strong enough financially to service the bond. On some occasions in the past, the hospital has had to borrow to meet its short-term financial obligations. This practice is not unusual as often businesses use lines of credit to finance current obligations when accounts receivable collections are slow. In this section we show several measures the hospital can take to improve the efficiency of the billing and collection process and thus avoid having to pay short-term borrowing finance charges.

The Hospital Should Be Able To Pay Back the Bond

To assess the financial health of the University Hospital, we used financial ratios used by expert analysts. Results indicate the University Hospital compares well with similar hospitals and should be able to repay the bond. Indications, of course, are no guarantee. Our analyses are based primarily on past and current financial conditions, not on future projections since they are uncertain.

Hospital's History Indicates Ability to Repay Bond. Liquidity ratios are measures of the hospital's ability to service liabilities. We looked at both the current and the quick ratios, using both information provided by the hospital and the hospital's audited financial statements.

The current ratio is an indicator of the current financial strength or adequacy of an organization's working capital. It measures the number of current asset dollars for each dollar of current liabilities. Historically, the University Hospital's current ratio has been near 3.0. Before the bond issue, for fiscal year 1991, the hospital had a current ratio of 2.90 meaning that current assets would "pay off" the current debts of the hospital 2.9 times.

Since the current ratio does not take into consideration the composition of current assets, we also used the quick ratio. The quick ratio is a stricter test of the hospital's current debt-paying ability. The quick ratio measures current assets, less inventories, for each dollar of current liability. Therefore, it indicates the relationship between the hospital's liquid assets and its current debts. Historically, the hospital's quick ratio has been between 2.5 and 3.0. For fiscal year 1991, the hospital had a quick ratio of 2.7, meaning that the hospital's "liquid" assets would cover current debts 2.7 times. The hospital's current and quick ratios compare well with the industry averages of 2.0 for current ratio, and 1.6 for quick ratio. Figure III shows a comparison of the University Hospital with other states' teaching hospitals.

Figure III

Because of the infusion of cash associated with the bonding, both the hospital's current and quick ratios have increased significantly since June 1991. At present, the current ratio is 4.49 and the quick ratio is 4.35.

Bond Experts Rate Issue Highly. Besides the liquidity ratios, another, and possibly the better gauge of the hospital's ability to pay back the bond comes from the financial markets and the bond experts that rated the bond issue. The current bond issue received a rating of AA- from Standard and Poors, and AA from Fitch Investors Services. These ratings are comparable to, if not better than, those received by some states on their general obligation issues. While the "legally available money" of the University of Utah is pledged against the bond issue, it is believed the hospital will be able to pay back the bond through its own operations.

One rating service when analyzing the hospital noted,

"Although it derives much of its credit strength as a result of its connection with the university, the hospital is financially self-supporting, with the ability to adequately service its own debt and fund depreciation...."

We likewise analyzed the hospital and agree with this statement.

University Hospital Debt In Line with Industry. Also, the University Hospital's amount of debt does not seem out of line with that of other western university teaching hospitals. Figure IV shows a comparison of the debt coverage ratios of the University of Utah Hospital. The first two ratios reflect the relationship between debt and nondebt sources of financing. The debt/asset ratio shows that debt is currently the source of 38 percent of the University Hospital's assets. In other words, 38 cents of each dollar of hospital assets are being supplied by creditors, while 62 cents are being supplied by the hospital and other outside sources. The debt/debt+equity ratio shows that long-term debt accounts for 30 percent of the University Hospital's total financial structure. As Figure IV shows, these ratios do not seem to be out of line with those of other university hospitals.

Figure IV

The interest coverage or times interest earned ratio is also an important ratio in determining the Hospital's ability to generate enough income to cover its interest expense. The University Hospital's times interest earned ratio as of December 1991 (after the bond issue) was 2.83. This figure indicates that the hospital can generate enough income to cover its interest charges 2.83 times. The median times interest earned ratio for 325 western hospitals is 2.5.

Finally, we reviewed the hospital's audited financial statements for the past 18 years, and found that the hospital has shown a net profit each year and growth in net revenues. Figure V shows hospital income for prior years.

Figure V

As shown above, the hospital has made yearly income over the past 15 years. The hospital's projection of profits shows them continuing to make profits throughout the payback period of the bond. However, as we note in previous sections, there is no guarantee that this will occur.

We believe these indicators show that the hospital should be able to pay back the bond. However, in the next section we show that the hospital needs to improve its ability to bill and collect patient accounts.

More Timely Billing and Collection of Patient Accounts Can Improve Cash Position

The hospital should be able to pay back the bond, but the hospital has had cash flow problems because it is not billing patient accounts on a timely basis. Since the hospital's profit margin (the difference between income and expenses) was only 1.6 percent in 1991, delays in getting patient payments can significantly impact the hospital's ability to get cash to pay its bills. For example, in 1991 the hospital had to pay \$200,000 in interest to the university for borrowing cash needed to meet expenses. The hospital has had problems with billing patient accounts in other years as well. In this section of the report we note ways that the hospital can streamline the billing process to make it more effective.

Billing accounts receivable has been a problem for the hospital. For instance, in one month of 1991, as much as \$13 million in accounts receivable were unbilled as of the end of the month. Also, the total dollar value of all accounts receivable, both those submitted and those still pending, has increased from \$19 million in 1986 to \$48 million in 1991. As a percent of net revenue, accounts receivable has gone from 23 to 29 percent in this period. Finally, average accounts receivable collection days, which is a measure of the time an organization must wait before receiving cash, has also increased to 101 days in 1991. Figure VI shows the average number of days the hospital has taken to bill and collect a patient account over time.

Figure VI

As the above figure shows, the average accounts receivable collection days is not only high now, but has been a problem in the past. Some delays in receiving payment, such as an insurance carrier withholding payment until an audit of the bill is completed, the hospital cannot control. However, other delays the hospital can control. In the following section we detail some billing problems and what can be done to improve collection of accounts receivable.

Some Problems Hinder Timely Billing. Several problems prevent billing on a timely basis. First, bills are not processed on a timely basis because there is poor communication among medical records, billing, and medical staff. The medical records and billing departments are not effectively communicating to obtain the needed information to send out bills. In a sample of twenty seven cases from a report listing those cases currently unbilled, we found many examples of poor communication. For instance, two patient bills were not processed on a timely basis because the chart was filed as complete when necessary dictations or signatures were missing. In eleven cases, doctors were slow in signing or dictating needed documents. In fact, one doctor had a chart for 283 days before finally returning it to medical records. Finally, in four other cases the medical records could not be found. The account balance for one of these lost charts is \$183,000. Subsequent to the audit, all records have been located and billed. After discussing these concerns with medical records and billing staff, they agreed there is a problem with communications and members of both departments are now meeting regularly to resolve some of these problems.

Another problem is an out-dated data processing system. The billing process is hindered by the current information system because it is very limited. For example, it does not allow the hospital to send bills electronically to insurance companies; also, because it does not have enough capacity, processing time is slow. Hospital administration recognizes this problem and is planning to purchase a new system with proceeds from the bond.

A third reason bills are not being sent on a timely basis is that the hospital has an inadequate performance measurement system for billers and medical records staff. The performance measurement system for these staff primarily uses the number of bills processed and courtesy to patients as the primary performance standards. While these measures are important, the performance measurement system is inadequate because there are no standards relating dollar amounts billed and dollars collected. Also, there are no standards relating to the timeliness of collections.

In comparison, the University of Colorado Hospital has a pay-for-performance plan in which employees are evaluated according to the dollar amounts collected. Employees prioritize their accounts and follow-up on the largest accounts receivable first. Employees also do everything they can to prevent accounts receivable from getting too old because the probability of collection diminishes as an account gets older. This approach helps employees to collect more dollars overall. In contrast, Utah's performance is measured by the number of bills processed which encourages employees to follow-up on the easiest bills first, which may not have the largest dollar volume. As a result, many old bills are unresolved, some with account balances of

over \$100,000. For instance, on December 1991's billings held report, 150 out of 1,507 cases, or about 10 percent of total cases, were over two months old, yet these cases represented over 20 percent (\$1.6 million out of \$8 million) of the total bills outstanding. The Director of Business Services agrees that the performance measurement system needs to be modified and promised to include financial measures in performance appraisals. We believe that performance measurement standards that encompass both timeliness and dollar amounts billed and collected need to be developed. These standards need to be reviewed and updated on a regular basis.

A final reason why bills are not sent on a timely basis is that the billing department does not have any formal, written policies and procedures. Employees must rely on verbal instruction or short memos for changes or new policies which can be easily forgotten or lost. During our audit, the Director of Business Services assigned staff to develop policies and procedures.

The hospital has a problem billing accounts receivable. Management recognizes this problem and is planning to implement the procedures needed to improve this process.

Recommendations:

1. We recommend that the Utah State Legislature consider developing intent language requiring legislative approval before university bonding or amend Title 11, Chapter 17 of the Utah Code to specifically require legislative approval before bonding.
2. We recommend that the Billing and Medical Records Departments institute procedures to resolve communication problems quickly and efficiently.
3. We recommend that the University Hospital upgrade their management information system to allow accounts receivable billing to be more efficient and to track financial performance of billers.
4. We recommend that the University Hospital complete the development of policies and procedures in the Billing Department.

We hope this letter has provided the information you need on this issue. A letter of response from the University Hospital is attached. If you have any questions or need additional information, please contact us.

Sincerely,

Wayne L. Welsh
Auditor General

WLW:CLM/lm