

August 16, 2001  
ILR 2001-E

President Al Mansell  
Speaker Martin R Stephens  
Audit Subcommittee Members  
State Capitol Bldg  
Salt Lake City UT 84114

**Subject: Y2K Expenditures**

Dear Legislators:

Most state agencies and institutions of higher education, which were reviewed by this audit, complied with state guidelines regarding Year 2000 (Y2K) expenditures. Approximately \$13.5 million was allocated to state agencies and institutions from the state general fund over a four-year period to combat problems associated with a two-digit date field in computing devices. However, certain flaws in spending controls were found regarding the authorization and expenditure process for Y2K monies. First, state Y2K administrators were unaware of some state funded expenditures, which led to one organization, out of five reviewed, spending \$550,000 on non-Y2K related items. Second, it was not required by state agencies to submit appropriate documentation explaining the necessity for their Y2K expenditure requests. Lack of documentation could have resulted in the replacement of already compliant systems. These two scenarios demonstrate that some weaknesses in spending controls existed, even though we found few agencies in violation of state guidelines.

In conducting the audit, at the request of the audit subcommittee, we selected three state agencies and two institutions of higher education for review—out of the 20 state organizations which received Y2K funding. The purpose of the audit was to determine compliance with state statute which reads:

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It is the intent of the Legislature that funds for statewide Year 2000 Mitigation are non-lapsing and shall be allocated among state agencies and institutions of higher education only for the remediation of problems related to two-digit date fields in computing devices as directed by the State's Chief Information Officer and the Executive Director's Office within the Department of Administrative Services.

We found that most of the institutions' expenditures, which we reviewed, met state Y2K funding guidelines by remediating problems with the two-digit date fields in computing devices. However, we did find instances in one state agency where some expenditures were not computer related, but focused on emergency supplies and equipment instead.

The United States General Accounting Office (GAO) defined the Year 2000 problem as being rooted in the way dates are recorded and computed. For the past several decades, systems have typically used two digits to represent the year in order to conserve on electronic data storage and reduce operating costs. With this two-digit format, however, the Year 2000 is indistinguishable from 1900, 2001 from 1901, and so on. As a result of this ambiguity, computer programs that use dates to perform calculations, comparisons, or sorting may generate incorrect results when working with years after 1999. Computer hardware or software that is Y2K compliant works with a four-digit format.

The Y2K situation created a feeling of uncertainty and urgency felt by both public and private institutions. This unique situation created by the uncertainty of what was going to happen by the year 2000 date rollover coupled with the need to get computers and systems Y2K compliant was felt nationwide. These two dilemmas were the essential problems that state Y2K administrators had to resolve. The state Y2K coordinator commented that the primary goal was to make state systems Y2K compliant. The secondary goal was to make sure that agencies followed legislative intent.

Figure 1 portrays a summary of state organizations we reviewed and their compliance with the Y2K requirements as outlined by state administrators.

**Figure 1. Summary of State Organizations Reviewed and Their Level of Compliance with Y2K Guidelines.** Of the agencies we reviewed, only one purchased items that were not Y2K related. Most agencies provided documentation regarding the necessity for the expenditure.

Organization	Provided State with Invoices for Reimbursement <sup>1</sup>	All Y2K Purchases Comply with Legislation	Provided Documentation of Y2K Compliance in Computing Devices <sup>2</sup>	Total Amount Received
Department of Administrative Services/DFC M	Yes	Yes	Yes	\$1,265,153
Department of Human Services	No <sup>3</sup>	No	Yes	1,283,142
University of Utah	Yes	Yes	Partial	931,000
Weber State University	Yes	Yes	Partial	524,331
Department of Commerce	Yes	Yes	Yes	349,712

1. State agencies and institutions were required to submit invoices of their expenditures to the Department of Finance, where they would be authorized for reimbursement by state Y2K administrators and the Director of Finance.
2. Although documentation of tests run for Y2K compliance in computing devices was not required to be submitted by state Y2K administrators, in most instances, state organizations were able to validate that tests were run with documentation.
3. The Department of Human Services were allowed to keep invoices centrally and not submit them to finance in order to qualify for federal matching funds.

Of the five organizations we analyzed, only the Department of Human Services (DHS) had purchases that did not directly comply with legislation. However, we had concerns with the level of communication between some state organizations and the state Y2K administrators as to what purchases were made with Y2K monies. We feel that because state Y2K administrators (the former state Chief Information Officer (CIO) and the state Y2K

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Coordinator) did not know exactly what was being purchased by some agencies that this demonstrates a weakness in spending controls over Y2K funds.

## **Y2K Administrators Lacked Adequate Spending Controls over Agencies**

Weaknesses in spending controls by Y2K administrators allowed non-Y2K related expenditures to be made. One such weakness is that some reimbursements for Y2K expenditures were allowed without agency invoices being submitted. Unfortunately, because some invoices were not submitted, there were various purchases made that did not deal directly with the two-digit date field in computing devices. The Y2K administrators have stated that they were not aware of such items being purchased.

Another weakness in controls is that Y2K administrators entrusted agencies to purchase those items that pertained to the two-digit date field without requesting documentation validating the necessity of their purchases. Adequate follow-up was not conducted. Appropriate documentation, along with the submitting of invoices, would have made state agency and institution spending more reliable and controllable. Moreover, because documentation was not required, the possibility existed for the replacement of already compliant computer devices with new equipment, even though we found no indication of such occurrences.

### **Administrative Services Allowed One Agency to Not Submit Invoices**

Most agencies submitted invoices to the Division of Finance for reimbursement of Y2K expenditures, which was required by state Y2K administrators; however, one exception was made for the Department of Human Services (DHS). Due to DHS being eligible for federal matching funds for some of their Y2K expenditures, they were required by the federal government to retain invoices and pay for Y2K expenditures out of DHS's finance department.

According to the state Y2K coordinator, DHS administrators were contacted on several occasions to submit copies of their invoices. Instead of submitting copies of invoices to the Division of Finance, DHS administrators submitted a spreadsheet of total expenditures by each division. As a result of not having invoices, state Y2K administrators were unaware of some of DHS's purchases. Consequently, we believe that over \$500,000 in expenditures did not comply with legislative intent.

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### **Some Agencies Did Not Submit Documentation Validating Y2K Necessity**

Another control problem by state Y2K administrators was that they did not require documentation to be submitted from state agencies that the systems being replaced or upgraded were valid Y2K related expenditures. What was required of agencies was the online submission of a progress report to the state Y2K administrators of the systems to be upgraded and whether or not they were made Y2K compliant. In our opinion, the progress reports submitted by state agencies of whether their systems were Y2K compliant are more testimonial in nature and do not constitute valid documentation.

In defense of this control weakness, state Y2K administrators said that they were already aware that certain computers and systems were not Y2K compliant and would need replacing because of prior testing. The state Y2K coordinator said that they had collected documentation on some of these tests from the agencies. The former CIO said that the state also had an inventory of certain equipment and systems that were not Y2K compliant. Moreover, the state Y2K administrators said that, due to a lack of manpower and time constraints, they could not validate that all items were necessary Y2K expenditures. However, the state CIO assured us that with the approval process that agencies went through to obtain funds, there was not enough room for non-Y2K related spending. Nevertheless, we believe that state Y2K administrators should have required documentation of tests at the time they were conducted to determine Y2K compliance and to ensure that Y2K monies were being used properly. Some organizations that we contacted felt that this kind of documentation would have been easy to provide when they first ran the Y2K tests.

Even though there were flaws in the funding process, some control elements were in place to assure a level of spending regulation. The actual process that the state Y2K fund administrators tried to use in reimbursing organizations was first, the organizations submitted initial requests to the state. Then, the Y2K administrators filtered the requests down to critical needs and they let organizations know what was acceptable. Next, the budget proposal was presented to the Legislature and the Legislature approved how much money the state would provide for the remediation of two-digit date field problems in computing devices. When the Legislature approved the overall funding, the state Y2K fund administrators informed each organization how much funding they would receive. When invoices were received, organizations were then reimbursed.

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### **Emergency Generators Were Purchased To Protect Against Possible Power Outages**

The state Y2K administrators authorized the Division of Facilities Construction and Management (DFCM) to purchase two large diesel generators to combat the possibility of Y2K power outages resulting from the Y2K computer problem. The purchase of these generators was influenced by the tornado natural disaster that passed through Salt Lake City in late Summer 1999. Some administrators felt we didn't have adequate backup power when the tornado hit nor would we have adequate power if something went wrong with power plants during a Y2K crisis. One DFCM manager explained that nobody really knew what was going to happen with Y2K; therefore, they purchased two generators. The rationale for purchasing the generators is supported by national literature. Also, according to staff from the Office of Legislative Research and General Counsel, the purchase of diesel generators may have been an appropriate Y2K expenditure to ensure a continuing power supply to run computing devices.

During the Year 2000 date rollover, the generators were located at the State Office Building and the Department of Public Safety. At the present, these generators are located at the Department of Public Safety and the National Guard. The National Guard maintains the state's generator, in turn for occasional use of the generator during losses of power to the Draper area. The DFCM preventive maintenance program manager says that there is the possibility that they might sell the power from the generators to California this Summer. Both generators are serviced regularly.

### **Human Services' Y2K Spending Presents Concerns**

To fully prepare for the potential disasters associated with Y2K, the Department of Human Services (DHS) spent over \$500,000 on emergency planning; however, we have concerns about these expenditures. First, many of these purchases did not meet the Legislature's guidelines for Y2K funding, because the expenditures were not directly associated with the "two-digit date field in computing devices." Second, some of the emergency supplies are being used or consumed by divisions at DHS without having a plan

to replace these items. Consequently, some Y2K funding is being used to supplant current DHS appropriations. Third, some emergency purchases were not necessary for the potential crisis associated with Y2K date issues. Finally, we believe the Legislature needs to determine if state funding should be used to support the purchase of emergency supplies for state employees. Should employees from one department have emergency supplies while employees from all other state agencies do not?

The Department of Human Services (DHS) spent a total of \$1,283,000 in state Y2K funds; of which over \$500,000 was spent on emergency planning. We believe much of this spending presents concerns. The following figure details the Y2K spending by DHS on emergency planning.

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**Figure 2. Estimated State Y2K Funds Used for Various Emergency Purchases at DHS.** The emergency items purchased by DHS were not consistent with legislative intent. In addition, some of the emergency goods are being used for non-emergency purposes without being replaced.

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Items Purchased	Estimated State General Funds Used
Diesel Generators	\$ 314,800
Portable Generator and Trailer	66,200
Meals Ready to Eat (MREs) and Dried Food	58,800*
72 Hour Kits, Blankets, Cocoon Sleeping Bags	42,000*
Radios, Cooking Grills, Propane, Hygiene Materials, Etc.	<u>70,000*</u>
<b>Total Estimated State General Funds Used</b>	<b>\$ 551,800</b>

\* These state general fund amounts were estimated due to some purchases having been paid with both state and federal funding.

Nearly one-half of the department's state Y2K funds went to purchase emergency preparedness goods even though state Y2K legislation did not allow for such expenditures. Furthermore, we have found additional problems resulting from the decision to buy these goods. First, these emergency supplies did not follow legislative direction. Second, some of

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these goods are being used to supplant existing funding. Finally, some of these emergency goods may be unusable.

### **Acquisition of Emergency Supplies Did Not Follow Legislative Direction**

Human Services used some of their state Y2K general funds to purchase large quantities of emergency equipment and supplies instead of using these funds for the sole purpose of remediating problems in computing devices affected by the two-digit date field. These emergency items included purchases such as: generators, meals-ready-to-eat (MREs), emergency water pouches, blankets, dried food, etc. Figure 2 above, depicts an estimate of these emergency purchases.

In our opinion, these emergency items do not comply with the legislative intent that purchases be associated with problems in the two-digit date fields in computing devices. For example, the department purchased 2,520 emergency 72 hour kits for its employees. Clearly, this purchase is not directly related to a two-digit date field problem. Furthermore, no other agency in state government used Y2K funds to purchase 72 hour kits for their employees.

In addition to the 72 hour kits, monies were also used to purchase MREs, blankets, dried food, water storage containers, and power generators. Some federal funds were received to help pay for the department's Y2K efforts; however, the majority of the emergency supply purchases were paid for with state funding. We believe the legislative guidelines did not allow for these emergency purchases. To obtain another opinion regarding legislative intent we contacted staff from the Office of Legislative Research and General Counsel. It is their opinion that the phrase "remediation of problems related to the two-digit date fields in computing devices" is limited to hardware and software upgrades (or replacements), backup systems, and possibly backup generators to ensure a continuing power supply to run computing devices. They believe the intent language is not broad enough to authorize the purchase of other emergency preparedness equipment or supplies.

Nevertheless, we understand the department's need to protect their clients in case of an emergency. We also believe that in most instances, except 72 hour kits and other purchases for employees, the emergency contingency purchases have been made solely for the

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protection of their clients. For example, the purchase of generators, MREs, dry food, and other supplies were for the state hospital, youth corrections' facilities, and various other DHS client programs. The department administrators approved the purchase of these supplies because federal guidelines encouraged DHS to develop emergency contingency and business continuity plans related to the Y2K rollover.

The purchase of emergency equipment and supplies has created additional problems for DHS administrators. First, some of the emergency items are being used for non-emergency purposes and may even supplant existing funding. Second, in some instances the consumable goods are being wasted. Finally, some of the emergency purchases may not have served any Y2K related purpose at all.

### **Some Emergency Supplies Are Being Used to Supplant Current Funding**

Many of the emergency items purchased for Y2K are being used for non-emergency purposes. After the Y2K crisis had passed, DHS administrators were left with the task of deciding what to do with all of the emergency items purchased. For example, because of concerns about the shelf-life of the consumable goods, some officials decided to use these emergency goods at every available opportunity. This has led to the exact concerns of some of the legislators, that Y2K funds would be used to supplant current appropriated funds. Not only did the purchase of emergency supplies not meet the legislative intent, but the department lacked a cohesive plan on how to rotate and maintain the emergency supplies. Consequently, if DHS officials continue to use the supplies without replacement, the department will be right back to where they were prior to the year 2000, with no emergency supplies.

There are some items, such as meals-ready-to-eat (MREs), emergency blankets, and two portable generators, that are being used at the present. For example, in some youth corrections' facilities and at the State Hospital, MREs are being consumed without being replaced. The shelf-life on the MREs is 10 years, and since many were a few years old when purchased, administrators have decided to allow their clients to start consuming them so as to not waste them. For example, in some youth corrections' programs they are letting the youth eat the MREs on overnight camp-outs. There are no plans at the present, in any of the divisions of DHS, to replace the MREs. It is inappropriate to consume these emergency goods and not replace them.

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Another example of inappropriate use of materials is that one youth corrections' facility is using the emergency blankets on their overnight camp-outs. The youth are placing them inside their sleeping bags. One problem with using the blankets is that Y2K decision-makers at youth corrections did not intend for any of the emergency items to be used except for emergencies. Another problem is that any current use of the blankets may cause them to be worn out or not available for future emergencies.

It was also noted that two portable generators are being used by the Division of Youth Corrections (DYC); one generator in the Ogden area, and one at Strawberry Reservoir. The generator at Strawberry Reservoir is used more frequently. This generator is located at an overnight youth corrections' camp and is used during the summer. One DYC administrator said that this portable generator was to be used on a temporary basis only, regardless of frequent power losses that occur at the camp. Furthermore, this generator is being stored at Strawberry Reservoir and is unaccessible during the winter, making it difficult to obtain if there was an emergency need for it during colder months.

### **Some Emergency Purchase Decisions May Have Been Imprudent**

Some emergency items purchased for Y2K could not be used while others were not likely to be used during a potential emergency. DHS officials purchased some contaminated water storage barrels, as a result of hasty decision making. In addition, some of the portable generators were unlikely to be used since they were located in facilities that already had a backup source of power. Finally, some administrators believe the MREs were not a good purchase since the clients don't like them and they are hard to maintain.

The purchase of used 55-gallon water barrels was a poor decision by administrators at youth corrections. These water barrels were purchased by the division in used condition and some were found by the division administrators to be contaminated by chemicals. Division administrators had assumed that these barrels had been used to store water only. We found that there is an explicit warning on the top of some of the barrels that they should not be used for human consumption. We believe that hasty spending decisions by administrators at youth corrections caused them to purchase the barrels. It is our recommendation that the barrels not be used until division administrators confirm that they have been tested for harmful substances. If the barrels are found to be contaminated, they should be drained and done away with if they serve no safe purpose.

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Another questionable decision by the department was the purchase of some of the portable generators which are located at the Division of Youth Corrections (DYC) and the Utah State Developmental Center (USDC). Many of these facilities already have backup diesel generators, especially in permanent lock-down facilities. For example, every building at the USDC has an emergency diesel generator, including two which were purchased with Y2K monies. The USDC also has three portable generators that were purchased. In this case, the portable generators were purchased as a backup to the larger diesel generators and the same is true in some youth corrections' facilities. However, the smaller generators could only provide minimal power such as to cook food if needed, provide emergency lighting, or power small appliances or tools. They were not purchased for the purpose of sustaining life support systems in case of prolonged power outages.

Finally, the decision to purchase MREs for DHS clientele was not the best alternative for emergency food according to some administrators. For example, one administrator admitted that MREs may not have been a good purchase in the first place since many of the youth don't like to eat them. He also said that the shelf-life of the MREs, unlike dry food, is much shorter. It is our opinion that administrators would have been better off to have purchased only dried food.

### **Should Emergency Supplies Be Purchased for DHS Employees**

With the purchase of emergency supplies, certain dilemmas have developed. First, we question DHS administrators' decisions to purchase emergency supplies with Y2K funding for their employees, while other state agencies made no such purchases. The concept of emergency supplies needs to be considered for all state agencies not just one department. Second, various emergency supplies will eventually need to be replaced because of expired shelf-lives, the department has no procedures for either consuming or controlling these supplies. Finally, once the supplies have either been consumed or have their shelf-life expired, how will they be replaced and where will the department get the funding?

In reviewing department expenditures, we found that emergency supplies such as 72 hour kits, emergency water pouches, cocoon sleeping bags, emergency blankets, and first-aid items were purchased for department employees. We question the department's decision to make these purchases for employees with Y2K monies and whether this decision was made in isolation. Department administrators admit that the tornado which hit their

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building in 1999 and injured an employee played a strong part in their decision to purchase emergency supplies for employees. Administrators further argue that DHS employees need to provide for their clientele in any emergency situation, which is another reason they feel it is important to provide emergency supplies for DHS employees.

Nevertheless, we found that a lack of planning and control exists within the department regarding these emergency items. Administrators at the Department of Human Services need to determine how to use the consumable emergency goods before their shelf-life expires. For example, the 72-hour kits which were purchased have a shelf-life of five years. Administrators have not determined how to replace these emergency supplies nor with what funding to use.

We have found other concerns which are a result of the department's expenditures for its employees. First, we found that many DHS employees are still not prepared for an emergency since some DHS division offices have not distributed 72 hour kits to individual employee workstations. The intent of the purchase was to have them available near an employee's desk in case of a disaster. In other instances we found that many new employees do not have 72 hour kits because some employees take the kits with them when quitting their jobs. There is no formal inventory controls over these items, save occasional visual checks.

In our opinion, it is the Legislature's role to determine the appropriate nature of emergency expenditures. One decision that needs to be made is whether replacement of emergency goods with shelf-lives should be allowed. Second, legislators should determine whether it is a good idea to purchase emergency 72 hour kits and other emergency supplies for all state employees.

### **Availability of Federal Funds and the Need to Care for Clientele Contributed to Questionable Use of Y2K Funds**

There were two principle factors which influenced decisions at DHS to purchase emergency goods: the availability of federal matching funds for emergency planning and the necessity to provide for clientele. DHS is one of the few agencies with clientele in need of full-time guardianship. They also are unique compared to other state agencies because they had access to federal matching funds.

Administrators at DHS maintain that to prepare for the Y2K crisis they had to follow a business continuity plan which meant they needed to prepare to keep all computer related systems and agency programs running in the event of a Y2K crisis or other disaster. Business continuity at DHS included purchasing items to help sustain and provide for their clientele in permanent facilities such as youth corrections, the state hospital, and the developmental center. The following figure depicts the breakdown of state and federal funding used for Y2K purchases.

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**Figure 3. FY 2000 Y2K Spending of State and Federal Funds at the Department of Human Services.** Human Services obtained nearly half of its Y2K funding from federal matching funds.

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Source of Funding	Dollar Amount
State General Funds	\$ 1,283,142
Federal Matching Funds	<u>1,187,661</u>
<b>Total FY2000 Spending</b>	<b>\$ 2,470,803</b>

To obtain federal matching funds for contingency planning, the Department of Human Services needed to spend state monies first and then retain their invoices to obtain the federal match. Copies of the invoices were not submitted to the Division of Finance. Because the invoices were not submitted, Y2K administrators were not made aware of some of the purchases made by DHS. This created problems with control of DHS expenditures.

An additional factor affecting DHS administrators and their decision to purchase emergency goods was the occurrence of the tornado in late summer of 1999, which hit the department's administrative building and injured an employee. Following the tornado, increased efforts were made by the department to better prepare for disasters. Therefore, with the available federal funds, they prepared for emergencies—and not just the Y2K emergency. The federal guidelines for Y2K spending were more broadly defined than state Y2K legislation, focusing on emergency planning for power outages, water shortages, etc., as well as computer failures arising from the two-digit date field problem. Administrators opted for the broader guidelines to prepare for the Y2K crisis, even though the federal guidelines were not mandated.

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DHS administrators should never have been in a position to make purchases for emergency purposes. It was the responsibility of the Y2K administrators to guard against such purchases. The Legislature required the former State CIO and the State Y2K Coordinator to control expenditures. Therefore, DHS's emergency purchases should have been detected prior to being made and then stopped. State Y2K administrators should have obtained copies of invoices from Human Services and then not approve the purchases to have better monitored the emergency spending.

### **Three Additional Organizations Met Y2K Spending Requirements**

Three additional state organizations, of the five which we observed, followed legislative intent in spending appropriated Y2K funds for the remediation of problems associated with the two-digit date field in computing devices. The institutions discussed in this section are: the Department of Commerce, the University of Utah (U of U), and Weber State University (WSU). While all three followed legislative intent, the level of control that the state Y2K officials exercised over their spending could have been more significant.

We found that state organizations requesting Y2K funding were not required to submit documentation that detailed the specific Y2K date problem in their computer systems. Instead, organizations were required to provide a short testimonial explaining how the problem was Y2K related. Without documentation, Y2K administrators put themselves in the difficult position of accepting the requester's word that the problem was Y2K related. Just the process of requiring more detailed documentation would have better ensured the problems were legitimately Y2K related. Adequate controls are important since state Y2K officials distributed about \$13.5 million over a four year period for Y2K remediation. It is our opinion that insufficient controls over funding existed since the decisions to reimburse state agencies and institutions were not supported by documentation regarding the need to replace computer related systems. Both the former state CIO and DAS officials indicated that they had limited resources, with both their budget and personnel, to fully review or screen reimbursements for Y2K expenditures.

Nevertheless, even though there were some weaknesses in controls, our review indicates that the three organizations (the Department of Commerce, WSU and the U of U) conducted extensive tests to prove their systems had problems relating to the two-digit date

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field in computing devices. However, much of the documentation was difficult to obtain during the audit because of the time that had lapsed since the 1999 tests were conducted. Y2K administrators should have requested the information in 1999, since administrators from the three organizations said that documentation of tests to determine Y2K compliance could have been provided at the time the tests were conducted.

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### **The Department of Commerce Met Y2K Requirements by Focusing Their Efforts on a Licensing System**

The Department of Commerce met legislative intent by remediating the two-digit date problem in their licensing system and spent a total of \$349,712 of state appropriated Y2K funds. Of this amount, \$330,000 went towards purchasing and implementing the new system called LES (Licensing and Enforcement System). The additional \$19,712 went towards the purchase of a tape back-up system called Digital Line Tape (DLT) for the LES system.

The LES system met legislative intent because the old systems that it replaced were not Y2K compliant. The information technology (IT) manager was able to provide documentation demonstrating that the old systems were not compliant. Specifically, the dates on the old systems could only handle two-digit date fields and they had to be manipulated to run after the year 2000. The new LES system corrected all of the Y2K concerns that were associated with the old systems that the department's Corporations and Licensing Division (CLD) were running.

The IT manager for the Department of Commerce explained that a single point of failure during the Y2K rollover in the CLD system would have caused the entire system to fail. Data maintained by the CLD on licensing, trademarks, business registrations, uniform commercial code filings, the central filing system for agricultural products, etc., would have been lost.

The Digital Line Tape (DLT) purchase was found necessary because the department needed to have their critical data backed-up at all times. The back-up system used with the old databases was only a single-tape system, which did not have the capacity to store all of the critical data on the new licensing system. Consequently, the old back-up system was not compatible with the new LES system. The IT manager at the Department of Commerce also commented that Y2K forced the department to think about disaster recovery of data and the old tape back-up system did not provide this feature. The new DLT system provides disaster recovery of all data stored and that, along with an increased capacity of storage space for critical data, helped facilitate the decision to purchase this system.

**Figure 4. Licensing System Expenditures at Commerce.** Commerce met legislative intent when spending state appropriated Y2K monies and also maintained documentation justifying the replacement to become Y2K compliant.

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Item(s) Purchased	Reimbursement for Item from State	Y2K Related	Documentation on Expenditure
LES System and Automated Tape Back-up System	\$ 349,712	Yes	Yes

The Department of Commerce's expenditures were an efficient and effective use of state funds. While the state provided \$349,712 for the LES system and associated costs, the Department of Commerce spent roughly an additional \$900,000 of their own budget on the LES system. The LES system was originally purchased for CLD, but since its installation, IT personnel at the department have been trying to rewrite programs in order to maximize the system's capabilities to better serve four other divisions. The IT manager for the department explained that five of the department's seven divisions are served, or will be served, by LES. Before Y2K, these five divisions (CLD included) ran on twenty-two different systems, but in the near future it is anticipated that the functions of the licensing system can be extended to accommodate the missions of the other four divisions. IT personnel have been attempting to maximize its functions so that future system maintenance costs can be reduced.

The Department of Commerce kept good documentation on justifications for expenditures. When requested, administrators were able to provide the documentation necessary to show why their purchase was necessary and how the two-digit date field problem would affect their overall operations. Department administrators were aware of the legislative intent of the state appropriated Y2K funds and followed that intent when spending the \$349,712 that was appropriated to them. Furthermore, administrators felt that state Y2K officials were aware of their actions taken to prepare for Y2K, but interactions with state Y2K officials mostly consisted of informal conversations. The reason that the department officials never submitted to the state documentation of their systems' Y2K test results was because state Y2K administrators did not request them.

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### **The University of Utah Followed Legislative Intent, But Some Spending Differed from DAS Expectations**

Expenditures at the University of Utah (U of U) met legislative intent by making systems and equipment Y2K compliant. The U of U spent \$931,000 of state appropriated Y2K funds. Although the U of U's expenditures were Y2K related, we found that there was confusion over personnel costs as well as misunderstanding regarding an upgrade to their timekeeping system. The breakdown of expenditures made by the U of U is represented in Figure 5.

Documentation was provided by U of U administrators justifying the purchases made for income accounting, BRASS (University Budget System), and the time and attendance software. This documentation consisted of the test results ran in 1999 showing that the old systems could only handle two-digits in their date fields. Consequently, in the Year 2000 rollover, the old systems would not be able to read the year.

While U of U administrators assured us that purchases made for public safety and plant operations were related to the two-digit date field problem, documentation justifying these purchases was no longer available. University administrators commented that the level of documentation required to justify expenditures would have been much easier to produce at the time the projects were being implemented. In the place of test results, justification statements were provided explaining how expenditures in these two areas (public safety and plant operations) were related to Y2K.

**Figure 5. University of Utah's Y2K Expenditures and Whether They Were Y2K Related.** Y2K expenditures were used appropriately to remedy problems with the two-digit date field in computing devices and in most cases documentation was provided to justify their expenditures.

Item(s) Purchased	Reimbursement for Item from State	Y2K Related	Documentation on Expenditures
Public Safety	\$ 70,000	Yes	Partial
Plant Operations	32,653	Yes	Partial
Income Accounting	46,185	Yes	Yes
BRASS (University Budget System)	191,303	Yes	Yes
Time and Attendance Software	251,852	Yes	Yes
Personnel Costs	339,007	Yes	Yes
<b>Total</b>	<b>\$ 931,000</b>		

Problems occurred at the University of Utah in reimbursing appropriate departments for funds spent. A large portion of the \$339,007 reimbursed to the U of U by the state for personnel costs was never reimbursed to the accounts that actually paid for that expenditure. For example, the University Hospital paid about \$192,616.13 in salary for three team members working on the time and attendance software implementation team. The U of U billed the state for their time and the state reimbursed the U of U for those salaries. However, the U of U never credited the Y2K reimbursement to the hospital but instead deposited the reimbursement to Administrative Computing Services for the U of U. The acting CFO for the Hospital was unaware that the University was reimbursed for the personnel expenses. We believe the entire \$339,007 was never credited to the departments who paid for the original personnel services of the time and attendance software implementation team. The response from U of U administrators on this point was that when the reimbursement was received, many of the accounts for Y2K were already closed. At the time, Administrative Computing Services was running a deficit from Y2K related projects so the money was credited to them.

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Another problem with expenditures occurred when U of U administrators requested an additional \$200,000 for a time and attendance software upgrade. Because additional funds were not available, administrators decided not to do the upgrade. An administrator at the U of U commented that the state never told them that they had to spend a certain amount of money on anything specific in their initial request. Therefore, since all items on the request were authorized Y2K projects, U of U administrators distributed the money at their discretion after it was received on a line item. It was through this process that administrators at the U of U decided not to purchase an upgrade to their time and attendance software. However, state Y2K coordinators were under the impression that money was spent on an upgrade to the time and attendance system. Improvements in communication could have clarified this lack of understanding that state Y2K coordinators had regarding actions that the U of U took.

In addition to the lack of communication regarding Y2k expenditures between U of U administrators and state Y2K administrators, we found that some Y2K personnel at the U of U were not aware of the exact legislative intent attached to the appropriated funds. Better communication, internally, at the U of U and externally between state Y2K administrators and the U of U administrators, could have made the distribution of one-time funds more sure with less room for misuse in spending.

Even though some of the University of Utah's Y2K expenditures were unclear to state Y2K administrators, most of the money spent on Y2K was paid for out of the university's budget as part of a very expansive Utah 2000 (Y2K) initiative. While the U of U spent \$931,000 of state Y2K monies, they also spent over \$8 million of their own funds on other Y2K related projects. The Utah 2000 project was a university-wide initiative to prepare for Y2K. The conversion of the entire university to the PeopleSoft computer program was part of this project. Some of the difficulty that the U of U experienced in providing documentation on expenditures was attributed to the fact that the projects that the State paid for were only a small portion of a much larger overall project, and it is difficult to judge one small portion without looking at the whole picture. One U of U administrator commented:

There is no definitive way to divide the costs of this project between those required to achieve Y2K compliance and those dedicated to achieving increased performance and functionality. Both elements were involved in every software and hardware purchase, and all other project costs. Nevertheless, it is undisputable that the Y2K problem was a primary driver of

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this effort and we believe it is reasonable to attribute a substantial portion, if not the majority, of this project to Y2K compliance.

While reporting errors occurred and communication at times was lacking, the U of U followed legislative intent in spending the \$931,000 of state appropriated Y2K funds.

### **Weber State University Met State Standards With Y2K While Communicating Well Internally**

Weber State University's (WSU) expenditures followed legislative intent and Y2K personnel provided adequate documentation justifying their expenditures. In preparation for Y2K, WSU formed a centralized Y2K committee for the entire university. This committee was responsible for communicating all information to the individual departments, approving requests, and finally reimbursing departments for expenditures. This committee did an excellent job of informing all departments of the legislative intent and appropriate uses for these funds.

The level of communication that transpired between Weber State University's Y2K committee and the individual departments helped facilitate an atmosphere of organization and compliance. Departments were aware of what was going on and what their responsibilities were during the Y2K preparations. This communication helped WSU comply with legislative intent when spending state appropriated Y2K funds.

WSU had adequate documentation on most of their Y2K expenditures. All of WSU's actual expenditures correlated with what the State had on record. WSU spent a total of \$524,331 of state appropriated Y2K funds. After reviewing all of the documentation on expenditures, purchases made by five departments were reviewed in more detail, this data is represented in Figure 6.

**Figure 6. Selected Y2K Expenditures for Review at Weber State University and the Validation of Expenditures.** WSU met legislative intent with its Y2K expenditures, while providing documentation validating most of its purchases.

Department/Item(s) Purchased	Reimbursement from State <sup>1</sup>	Y2K Related	Documentation on Expenditures
Data Image Expenditures	\$97,670.00	Yes	Partial
Bio Center	34,151.36	Yes	Partial
Dental Hygiene	14,415.93	Yes	Yes
Learning Support	4,800.00	Yes	Yes
Chemistry	773.62	Yes	Yes
<b>TOTAL</b>	<b>\$151,810.91</b>		

1. This is not a complete listing of expenditures. This is just a list of items reviewed in more detail by the auditors.

WSU administrators acknowledged that Y2K compliance tests were run to justify the Data Image computer hardware expenditures and also those purchases by the Bio Center, but they didn't know where those test results are. Administrators said that if the old equipment was still on campus it would have been easy to reproduce that documentation. WSU administrators noted that the state could have required this kind of documentation and, for the most part, it wouldn't have been that difficult to provide. Test results and/or declarations made by vendors stating Y2K system failures were provided by the Learning Support Center, and the Chemistry and Dental Hygiene departments. In place of test results or vendor declaration of non-Y2K compliance, justification statements from the Bio Center and the Data Image expenditures were provided explaining how and why the expenditures made were a Y2K related issue.

WSU required departments to pay a percentage of their Y2K bill. Administrators felt that requiring departments to pay for ten percent of their department's approved Y2K expenditures was a way to reduce frivolous spending. This was an innovative approach in that it reduces the likelihood that individual departments would pad their requests in order to shore up as much money as possible. Therefore, at WSU, departments were required to submit documentation to the university Y2K committee showing how their request met legislative intent and also were required to pay a percentage of their Y2K expenditures.

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We hope this letter provides you with the information you need and addresses your concerns. A letter of response from the Department of Administrative Services is attached. If you have any other questions or need additional information, please call our office at (801) 538-1033.

Sincerely,

Wayne L. Welsh  
Auditor General

WLW:DAM/lm

