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Digest of
A Performance Audit
of the UTAX Project

**Chapter I:
Introduction**

The Utah State Tax Commission (Tax Commission) sought to improve their processes for administering the state's taxing abilities. They chose a modernization project which would deliver new computer systems capable of handling the $4.6 billion in revenues. UTAX became the name of the new project endeavor. A private technology contractor was chosen to provide the needed systems for a target price of $34 million. Utah ventured into the UTAX project aware that nationally, implementation of systems of this size frequently face many challenges.

Audit Called for Full UTAX Project Review. Due to the significant state funding invested in UTAX, the Legislature asked us to review the project. Specifically, the audit scope and objectives were to:

- Review project funding and resources used.
- Determine what computer systems were purchased in connection with the UTAX project.
- Review communication of the project's progress to the Legislature, Governor, and Tax Commissioners.

**Chapter II:
UTAX Faced Contract and Project Management Challenges**

During our review of UTAX, we became concerned about specific aspects of the contract and management's enforcement of the contract. We believe project management should have held the contractor more accountable. We believe the Tax Commission may have been able to issue monetary penalties against the contractor for delays and defaults of project systems, yet failed to do so. We were also concerned about the target price under the contract. We believe there was no basis for the price, which led to over-funding of the UTAX project.

In addition, after reviewing costs associated with the UTAX project, we found the project was costly. We believe it is unlikely the project could have been completed within the target price.

**Chapter III:
UTAX Systems Had Challenges Yet Offer Many Improvements**

The Tax Commission contracted to receive three systems from the contractor. Those three systems were:

1. Advantage Revenue (ADVR) — to provide integration between the different tax types, compliance tracking and the underlying accounting functions of the system,

2. Motor Vehicle Administration (MVA) — to provide a streamlined vehicle registration and title system, and

3. Computer Assisted Collection System for Government (CACSG)— to provide a modernized collections system designed to increase delinquent tax collections.

Both MVA and CACSG do offer some solutions to the Tax Commission's systems problems; however, the systems faced problems during implementation. In addition, ADVR was dropped entirely:

- Advantage Revenue was abandoned after the Tax Commission spent $3.8 million analyzing the product and planning for its implementation. The Tax Commission says the software was not as developed as they were led to believe.
- MVA was delayed by two years. However, MVA does offers an improvement over the previous registration system. For example, it allows real-time data entry and quicker title turn-around.
- Initially, CACSG required several upgrades before the system worked as expected. However, CACSG offers several benefits in delinquent tax collection. For example, CACSG will help collections agents contact more taxpayers and has the potential to improve future productivity. CACSG offers case consolidation, better case assignment and automation of labor intensive tasks.

Chapter IV: UTAX Collection System Revenue Uncertain

In our final area we respond to a specific request by legislative leadership to clarify the initial expectation that $20 million in annual revenues were anticipated from UTAX. We found that subsequent estimations were lowered to a range of $6.7 to $13.8 million annually. However, the actual increase in revenues, which the Tax Commission credits to UTAX, average $4.3 million per year, which is much lower.

In further review of revenues, we specifically examined CACSG—the UTAX system responsible for increasing revenues. We question the Tax Commission's report that CACSG has increased delinquent collections an average of $4.3 million annually. We believe that the method the Tax Commission used to measure the benefits produced by CACSG is too broad because the measurement allows for the inclusion of delinquent tax collection revenues received before the CACSG system has any impact on the collection process.

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Chapter I
Introduction

The Utah State Tax Commission (Tax Commission) provides a vital function for state and local governments by collecting revenues to pay for many of the services enjoyed by the citizens of Utah. In order to collect these revenues, the Tax Commission must be equipped with the necessary modern technology capable of administering the $4.6 billion in revenue it receives for Utah. In recent years, the Tax Commission was finding it increasingly difficult to administer taxes with their existing computer systems. Modernization was sought to propel the Tax Commission into the twenty-first century. The UTAX project discussed in this report was the method for modernization.

The Tax Commission recently undertook a large project to update several tax systems. This modernization project was referred to as "UTAX."

UTAX Project Was Intended to Modernize Tax Systems

In 1995, the Tax Commission solicited advice from a consultant to help them define what was needed for modernization of the Tax Commission's tax systems, their ability to utilize customer demographic and liability information effectively, maintain a financially sound basis of accounting, implement tax law changes in a timely manner, and improve general information management (their "business processes technology"). Based on the consultant's reports, the Tax Commission developed the concept of a systems modernization project called "UTAX." (Note: UTAX was chosen as the name of the modernization project and is not an acronym).

Some of the goals for the new UTAX system included:

- providing citizen centered service,
- upgrading brittle systems which would meet Generally Accepted Accounting Principles (GAAP) requirements,
- increasing voluntary compliance and year 2000 compliance,
- streamlining business processes (as mentioned above), and
- producing immediate and long-term returns on investment from the system.

This report shows that some UTAX goals were not met due to project complications.

As will be discussed throughout this report, due to complications during the project, many of these goals were not specifically met.

American Management Systems, Inc. (AMS) was chosen as the vendor for UTAX. AMS was charged with assisting the Tax Commission with their change in operating strategies by streamlining and integrating business processes.

The contract with AMS was for professional services, which included consulting services, software, and software development and customization. The contract term was for five years, commencing August 4, 1997 and terminating June 30, 2002.

UTAX focused on three new systems to help the Tax Commission modernize.

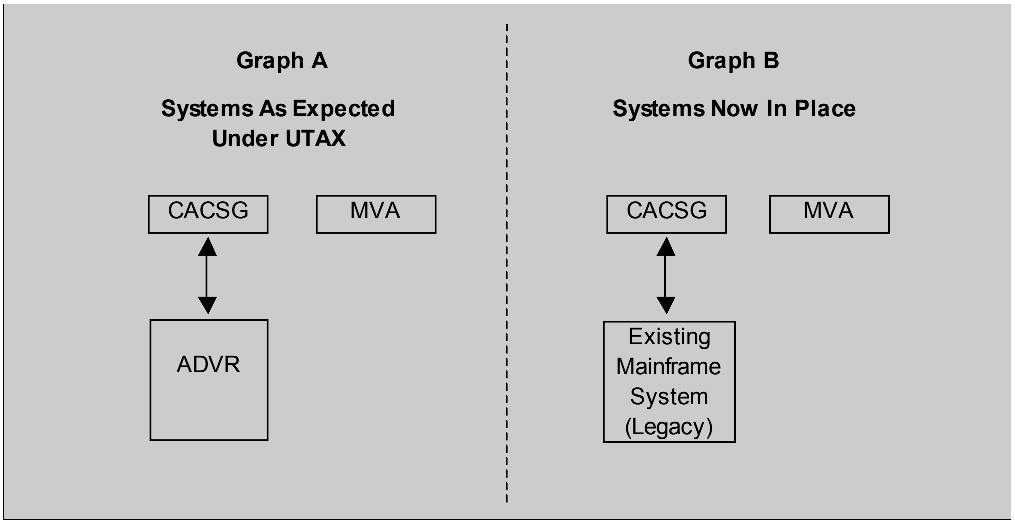
Included in the UTAX project was the implementation of the following new tax and motor vehicle administration systems purchased from AMS, which will be discussed in Chapters II and III:

- a new collections management system, the Computer Assisted Collection System for Government (CACSG),
- the Motor Vehicle Administration System (MVA), and
- Advantage Revenue (ADVR), a compliance tracking and underlying tax and account management system.

ADVR was intended to act as an underlying support system to CACGS, eventually replacing the existing mainframe system (Legacy). According to Tax Commission officials, it was envisioned that ADVR would replace each of the separate tax systems with a single system capable of handling most tax types administered by the agency.

In Figure 1, we show the relationship between Tax Commission systems. Graph A is a simplified version of what the Tax Commission intended to receive from the contractor. However, because of the systems problems experienced during the course of the UTAX project, ADVR was never implemented to replace Legacy. This is illustrated in Figure 1, Graph B.

Figure 1. Proposed Tax Systems Under UTAX Versus Actual Systems Now in Place. The Tax Commission received CACSG and MVA, but implementation of ADVR was abandoned. Therefore, the Legacy system still supports CACSG.



Most Government Technology Projects Experience Significant Challenges

One electronic commerce consulting firm pointed out that fifty-two percent of government technology projects are classified as "challenged."

Difficulties arising out of large technology projects are common. According to one market research and consulting firm specializing in electronic commerce, "thirty percent of all government technology projects [are] outright failures" and "fifty-two percent [are] classified as 'challenged'."

In the October 1998 UTAX Executive Review Committee meeting (a committee comprised of representatives from the Tax Commission, Governor's Office of Planning and Budget, Legislative Fiscal Analysts, and the Division of Finance to oversee the UTAX project) an article was presented which appeared in the September 1998 edition of *Governing* magazine. The article discusses the overwhelming number of government computer systems projects which are plagued by excessive costs and delayed implementation or lack thereof. The article also discusses the commonality of major system overhauls in the public sector and how the changing world of technology in and of itself poses a challenge.

Other States Have Faced Challenges

The State of Utah is not alone in the difficulties realized when implementing a major systems overhaul. Other states, such as Montana and Mississippi, have faced difficulties when implementing upgraded tax systems. Although the issues faced by Utah's modernization project were not as significant as some other states, Utah still faced many challenges.

Other states have faced challenges with projects similar to UTAX:
- **implementation delays**
- **cost over-runs**
- **system performance problems.**

The state of Montana had project costs exceeding $28 million before officials decided to drop the tax project. Due to program glitches, delays and excessive budget overages, the Montana Department of Revenue decided it would take too many resources to finish the project. As *The Billings Gazette* reported in November 2002, "the system . . . was plagued by problems from the start when installation began in May 1998."

The state of Mississippi is another example of a system modernization project which faced difficulties. The Mississippi State Tax Commission (MSTC) entered into a contract with American Management Systems, Inc. (AMS)—the same vendor the Tax Commission hired for the UTAX project—to custom build an integrated tax system. According to the project manager for the MSTC's tax modernization program, the terms of the contract were to provide thirty-six tax systems in thirty-six months. By summer 1997, forty-two months later, only one system was complete and that system did not perform up to MSTC's expectations. MSTC brought suit against AMS. After a trial found AMS liable to the MSTC, AMS settled with the MSTC for $185 million paid over thirteen years.

As discussed above, it seems apparent that large systems projects face common delays, cost over-runs and system performance problems. The Tax Commission also faced these challenges.

Audit Scope & Objectives

The Legislature requested an accounting of the UTAX project. In a January 2002 letter from Representative Wayne Harper to the Legislative Management Committee, it was stated that the request was because the Tax Commission received several million dollars in legislative appropriations for the UTAX project:

> The Legislature and citizens of Utah need an accounting of funds and what was and was not built and developed with the funds and the total Tax Commission's support that was allocated to [the UTAX] project.

The audit requestor asked us to provide the Legislature and citizens with an overall accounting of the UTAX project. We reviewed:
- **funding**
- **UTAX systems**
- **project management.**

From this request, the audit scope and objectives were to

1. Obtain an accounting of all funds and resources used in connection with the Utah State Tax Commission's UTAX (tax modernization) project.
2. Determine what products and systems are now utilized (or were abandoned) by the Tax Commission in connection with UTAX funds and resources.
3. Review whether overall project accountability (including project rationale, time-frame, goals and benefits) was effectively communicated to the Legislature, Governor, and Tax Commissioners.
4. Review other aspects of the UTAX project as determined by the audit team.

Because the UTAX project has now been fully completed, this report will be somewhat more informational than traditional audit reports which conclude with audit recommendations. To the Tax Commission's credit, they moved ahead with a critical systems modernization project despite the risks surrounding such large projects. Still, the audit team does point out significant concerns with all aspects of the project. Also, a list of considerations is given at the end of Chapters II, III and IV, which may prove beneficial for the Tax Commission and other agencies who undertake large system projects in the future.

The reader will note that issues with the UTAX contract, costs, funding, and project communication to the Legislature are reviewed in Chapter II. Next, issues with the three major UTAX systems are addressed in Chapter III. Finally, concerns about the reported benefits of the new collections system associated with the UTAX project are discussed in Chapter IV.

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Chapter II
UTAX Faced Contract and Project Management Challenges

Our analysis of UTAX found project delays, questions regarding the contract, and excessive costs.

The UTAX project faced many challenges. During the course of our audit we found that UTAX project management should have held the contractor more accountable. In addition, we found issues concerning the contract's target price and the funding of the UTAX project. Finally, we found that actual project costs were significant and excessive of the target price.

Project Management Should Have Held Contractor More Accountable

The Tax Commission may have allowed AMS to escape their obligations by not assessing penalties and by allowing delayed system deliveries. Also, the Tax Commission chose not to allow the contractor to continue with one entire system (ADVR) because they thought it was not as developed as the contractor led them to believe; and, they did not believe the contractor would succeed in delivering it. In addition, we found no reasonable basis for the target price under the contract, leading to an inability to budget each individual system and funding to exceed the target price.

Tax Commission Did Not Penalize Contractor for Delays

We believe the Tax Commission may have been able to assess penalties allowed for in the Request for Proposal, which was incorporated into the contract, when significant delays occurred on delivery of the Motor Vehicle Administration System (MVA).

We believe the Tax Commission should have exercised their right to assess penalties for contractor delays.

The contractual terms allowed for liquidated damages, in certain instances. In the Request for Proposal, the Tax Commission informed all vendors that delays by the contractor in performance of the contract would allow the Tax Commission to collect damages from the contractor ranging from $1,000 to $10,000 per day. Although there were significant delays by AMS, the Tax Commission never exercised their right to collect penalties. We believe they should have at least sought legal counsel on this issue.

It seems that an informal enforcement of the contract may have inhibited the Tax Commission's ability to collect damages. According to Tax Commission officials, they did not assess penalties because, despite problems which arose earlier in the UTAX project between AMS and the Tax Commission, the Tax Commission still wanted AMS' motor vehicle system (MVA). The Tax Commission did not want to destroy the relationship before they received MVA.

The Tax Commission believes their act of denying payment to AMS was a form of penalty.

According to Tax Commission officials, AMS was denied payment for fourteen months, serving as a penalty for not performing under the contract. In addition, after negotiations between AMS and the Tax Commission, AMS reduced the amount due on one ADVR work order by $700,000. We question why the Tax Commission would want to venture deeper into the UTAX project with AMS after there were so many difficulties earlier on. In one notice to the contractor, dated January 1999, one Tax Commission official expressed several concerns with AMS' performance. Some of these concerns include:

- The contractor's frequent change of project managers (by January 1999 AMS had already replaced their UTAX project manager twice),
- The limited knowledge demonstrated by the AMS staff during Phase 1 of the project,
- AMS' underutilization and underdevelopment of a detailed work plan,
- AMS' infrequent quality assurance visits and ineffective use of quality assurance reports as required under the Master Agreement, and
- AMS' staff's lack of adequate understanding of the product they were trying to implement.

However, we recognize that the project systems were running concurrently and that the Tax Commission believed they had little other alternative for improved systems.

We believe the Tax Commission should have followed the terms of the contract as it relates to allowable damages. But, according to Tax Commission officials, AMS' motor vehicle product was the best in the field at that time. Also, since MVA was the final product delivered as part of the UTAX project, it may have been difficult to assess penalties to AMS. This is because the Tax Commission was not aggressive in notifying AMS of any delays, requests to cure, and product inadequacies earlier on.

AMS delivered the motor vehicle system two years behind schedule.

The Motor Vehicle Administration System (MVA) was originally scheduled to be implemented by April 1999. However, the system did not "turn on" until April 2001. According to a Tax Commission official, this two year delay was filled with promises of deliveries which were missed from the contractor or subcontractor and several deliveries of an inferior product.

We question the decisions made by Tax Commission officials in allowing AMS to significantly delay and then deliver an incomplete product. We believe the Tax Commission should have explored whether they could exercise their contractual rights to collect liquidated damages due to AMS' delay in delivering the product. We believe that if the Tax Commission would have made AMS more accountable for the delays, they may have even motivated AMS to deliver an adequate product sooner.

Tax Commission May Have Released Contractor From Advantage Revenue Responsibilities

The Tax Commission spent $3.8 million on the Advantage Revenue system which was never received.

In a related contract concern, the Tax Commission stopped AMS' delivery of the design and analysis of Advantage Revenue (ADVR) because of their dissatisfaction with AMS' performance. As will be discussed in Chapter III, the Tax Commission paid AMS $3.8 million for ADVR and received nothing of value. This poses the question of whether AMS was in breach of the contract to provide ADVR. We believe this is another area where the Tax Commission could have, and may possibly still, seek legal counsel.

In AMS' response to the Request for Proposal they agreed to provide integrated tax processing applications, including sales, withholding, individual income, and corporate franchise tax. According to Tax Commission officials, because ADVR was not complete, AMS struggled to deliver. The Tax Commission believes that ADVR was not as developed as they were led to believe.

We concur with the Tax Commission's decision to halt implementation because of excessive costs and their belief that AMS did not deliver a suitable product. However, we believe the Tax Commission could have been more aggressive in responding to the contractor's apparent inability to provide ADVR, particularly in light of the $3.8 million investment already made, such as consulting legal counsel and pursuing any recommended legal remedies.

Consultants Were Concerned About ADVR. Deloitte & Touche Consulting (D&T), the consultants hired to review the project, were also concerned with aspects of the project and the Tax Commission's response. For example, in one memorandum from D&T to the Tax Commission dated September 1998, D&T was concerned that the project had developed into a system where earlier tasks are not given time for observation before beginning subsequent tasks. Pertaining to ADVR, D&T pointed out that the Tax Commission was "putting itself at risk if the 'build' activities occur before design is complete and agreed upon, resulting in builds that don't meet expectations and/or needed rework which can affect schedule and budget."

Consultants to UTAX were concerned that the project was moving ahead before the systems proven viable.

D&T was also concerned when a blueprint document of the system indicated that AMS will complete planned deliverables to the extent possible within the budgeted resources. D&T pointed out that AMS' role was that of analysis, coaching, and coordination, whereas the Tax Commission's role was that of day-to-day leadership and execution. Of these roles D&T stated that,

> AMS appears to have been released from their responsibility of delivering a complete product, and that if the product is incomplete, that the Tax Commission will bear more responsibility to AMS. We recommend that the Tax Commission reach documented agreement with AMS that commits AMS to performing its work to deliver a quality product (i.e., system) rather than providing a certain number of hours of service.

Consultants believed the Tax Commission allowed AMS to escape their contractual obligations.

In this same memorandum, D&T appeared to warn the Tax Commission that, "[the] ADVR system documentation is all release 1.0, serving as a reminder as to how new the software really is in the marketplace." In other words, the first version, release 1.0, of a software program is usually not complete and will likely need improvements to eliminate software bugs. For example, release 4.0 of a software program is generally more reliable than release 1.0 of that program.

In October 1998, D&T agreed with the Tax Commission's decision to hold off on implementing Release 1.0 of ADVR. In addition, D&T also agreed "with issues raised by the Tax Commission regarding the unclear definition of what is included in the Release 2.0 baseline." According to Tax Commission officials, ADVR was delayed and put on hold several times because issues kept arising. For example, certain modules were not performing properly.

Even the contractor thought the Tax Commission should abandon Advantage Revenue.

The Tax Commission eventually realized that ADVR was not as developed as they had been led to believe. According to one Tax Commission official, when told of the Tax Commission's decision to abandon implementation, AMS responded that it was surprised the Tax Commission did not choose to abandon the project sooner.

Issues Exist Concerning Contract's Target Price and Project Funding

We believe funding exceeded the target price because that price had no reasonable basis.

We do not believe the UTAX project could have been completed for the target price of $34 million. In our opinion, the target price of $34 million did not reflect the cost of receiving all products from AMS. This deficiency existed largely because AMS could not itemize the separate costs of the three UTAX systems. This inability to itemize the cost of each system prohibited us from analyzing if the systems met budget. Although the target price was $34 million, the Legislature approved funding for the UTAX project in excess of this price. Funding for UTAX was $41.3 million, before some appropriated funds were redirected. We believe that funding was allowed to exceed the contract's target price because the price had no reasonable basis. We found no evidence that the systems could be implemented for the target price.

The contract term was for five years, commencing August 4, 1997 and terminating June 30, 2002. The contract created a formal business relationship, setting the maximum authorized cost at $34 million. All work to be completed under the Master Agreement was detailed in one or more work orders. These work orders directed all the work to be completed under the project. AMS was not obligated to perform services in the absence of a work order, nor was the Tax Commission obligated to compensate AMS for work not described in a work order. All work orders were to stay within the defined scope of the Master Agreement.

No Reasonable Basis for Contract's Target Price

We do not believe the target price reflected how much it would cost to receive the products. We were unable to find evidence supporting that the systems could be delivered for the agreed-upon price of $34 million. According to one Tax Commission official, once the target price was reduced, the contractor was unable to itemize each of the three systems.

A contract with a target price of $34 million was signed between the Tax Commission and AMS, effective August 4, 1997. However, $34 million was not the price listed in the price proposal. We were unable to determine how the $34 million target price was reached. We found no data supporting that the systems under the UTAX project could be completed for this price.

No evidence suggests that the UTAX systems could be completed for the contract's target price.

Data we reviewed showed the lowest price for the project to be $36.3 million, yet the contract was written for $34 million. In the price proposal, AMS' lowest bid—after significant discounts and module eliminations—was $36.3 million.

In fact, AMS's first bid was $43 million, less a discount on services of $3.3 million, to bring the bid price to $40 million. In an attempt to reduce the price further, AMS also offered a bid which eliminated some of the business processes modules. The final bid in this price proposal submitted by AMS was $39 million, less a discount on services of $2.9 million, for a total of $36.3 million.

According to Tax Commission officials, the UTAX team was given the charge by executive management to reduce the price below AMS' bids. So, after discussions took place among Tax Commission officials, legislative representation and AMS, a target price of $34 million was agreed upon. Figure 2 illustrates the bid prices as offered by AMS and the contract's final target price.

Figure 2. Contract's Final Target Price Not In Price Proposal. The final target price of $34 million was never bid by AMS in the price proposal.

First Bid Price Less Discount	Final Bid Price Less One Module**	Contract's Final Target Price
$43,092,307*	$39,212,067	
(3,311,321)	(2,948,297)	
39,780,986	36,263,770	$34,000,000

** AMS also submitted a price of $48,092,307 under a benefits-based funding model. However, it was decided the UTAX project would be funded through bonding.*
*** According to Tax Commission officials, the first price was too high. The Transition Management Module was dropped for further price reduction.*

Contract Does Not Allow Budget Analysis of Each Separate System

According to Tax Commission officials, since the contract's final target price was an arbitrary figure and not based on the price proposal submitted by AMS, each system was not itemized. This inability to itemize expected costs prohibited us from determining if system costs exceeded budget because there was no budget to compare costs against.

We believe the Tax Commission should have required AMS to itemize each system.

Initially, when the contract was bid for $43 million, each of the three systems were itemized. Itemization allowed analysis of how much each system would cost. Even the second bid of $39.2 million still offered some itemization. But, according to one Tax Commission official, once the final target price was reached, AMS said they could no longer itemize the price to each system. Without an itemized breakdown of each system it is not possible to determine if each system exceeded budget. However, as discussed next, we believe the two systems received by the Tax Commission from AMS did exceed costs when compared to the target price.

UTAX Funding Exceeded Contract's Target Price

With no reasonable basis for the target price and no evidence that the systems could be implemented for the contract's target price, the Legislature approved funding for the UTAX project in excess of the target price. Funding for UTAX was $41.3 million before some appropriated funds were redirected.

Funding for the UTAX project came from several sources:

- bonding,
- direct appropriations,
- non-lapsing funds, and
- the Tax Commission's operating budget.

The Legislature issued three bonds and allowed existing agency funding to pay for the UTAX project.

From fiscal year 1998 through fiscal year 2000, three bonds were appropriated. The first in fiscal year 1998 totaled $8.7 million, the second in fiscal year 1999 totaled $15.6 million, and the third in fiscal year 2000 totaled $7 million. Two other appropriations for $1.3 million and $2 million were authorized for the UTAX project. Intent language in the 1999 Supplemental Appropriations Bill authorized the Tax Commission to create a restricted account which could receive up to $6.6 million from the collection of accounts receivables from the outside collection agency.

Eventually, there were two reductions in the funding. The first was the fiscal year 2000 bond was redirected to another agency and was never spent by the Tax Commission. The second was the restricted account which was never funded. After discussions between the Tax Commission, the Capital Facilities Appropriations Subcommittee, the Commerce and Revenue Appropriations Subcommittee, Legislative Fiscal Analysts, and the Executive Appropriations Committee about concerns over the UTAX project, it was decided the fiscal year 2000 ($7 million) bond be redirected to another, non-Tax Commission project.

In addition, according to Tax Commission officials, no funds were allocated to the restricted account because at the time the account would have been set up the Tax Commission realized they were dropping ADVR so they would not need the funds. Figure 3 summarizes the year and source of funding for the UTAX project.

Figure 3. Legislative Funding for UTAX Exceeded Contract's Target Price. Before the redirection of a bond and elimination of the restricted account in fiscal year 2001 the Legislature had funded up to $41.3 million for UTAX. After 2001, direct funding reduced to $27.7 million.

Fiscal Year of Funding	Bond	Other Appropriation	Total
1996		$1,300,000*	
1998	$ 8,760,924		
1999	15,560,000	2,000,000	
		6,600,000	
2000	7,000,000		
	$31,410,924	$9,900,000	
Subtotal as of 2000			**$41,310,924**
Less 2001 Redirection	($7,000,000)	($6,600,000)	
Total After Redirection			**$27,710,924**

** Initial funding for the UTAX project began before a vendor was chosen. This initial funding was to pay for project start-up costs.*

Figure 3 shows that as of fiscal year 2000, the Legislature funded the Tax Commission with $41.3 million in bonding and other appropriations. After reductions in the funding, the final funding received by the Tax Commission for the UTAX project was $27.7 million.

Final bonding and direct appropriation funds for UTAX totaled $27.7 million.

This $27.7 million in funding was to pay for contractor expenses; it was not intended to cover the internal costs of the project. The Tax Commission would have to absorb personnel costs and current expenses attributable to the UTAX project. The Tax Commission was authorized to use non-lapsing funds to help cover these internal costs.

Reports informing appropriations committees that one system would be delayed, causing project costs to exceed the contract's target price, may have influenced the committees to increase funding beyond the $34 million. In a presentation to the Executive Appropriations Committee in December 1998, the Legislative Fiscal Analyst informed the committee that one system in the UTAX project, Advantage Revenue, would be delayed. The Fiscal Analyst also reported that due to the delay, project costs would exceed the target price of $34 million to AMS' original bid of $40 million. This delay and price increase information was then reported to the Joint General Government and Capital Facilities Appropriations Subcommittee on January 25, 1999.

Based on our discussion above—that the contract lacked a foundation for the price and could not have been completed for $34 million—we believe the funding authorized by the Legislature more closely reflects the cost if all three systems would have been implemented. We believe the original bid from the contractor should have been the contract price.

Final Project Costs Significant and Exceed the Contract's Target Price

The UTAX project was an expensive undertaking, as are most large technology projects both in government and the private sector. Project costs include both system and internal resources. We believe the target price was set too low and the project could not have been completed for this price.

Project Costs Were Significant

Final UTAX project costs totaled $43.2 million, which included $15.4 million in Tax Commission funds.

The UTAX project cost the Tax Commission $43.2 million. To pay these costs, the Tax Commission used $27.7 million of bonded and directly appropriated funds. In addition, to meet project needs, the Tax Commission contributed an authorized $15.4 million of non-lapsing funds and operating budget. Total project costs include consulting fees, contractor and other third party costs, payroll for the use of Tax Commission employees, and current expenses directly related to the project. Figure 4 depicts the funding sources and uses for the UTAX project.

Figure 4. UTAX Project Costs Were Significant. The UTAX project cost the Tax Commission $43.2 million.

Item	Source	Use
Direct Funding (Appropriations and Bonds)	$27,710,924	
Tax Commission Operating Budget and Non-Lapsing Funds	15,490,526	
Consulting Fees*		($ 2,140,853)
Contractor/Third Party		(27,187,960)
Payroll to Tax Commission Employees		(10,219,806)
Current Expenses		(3,652,831)
Total:	**$43,201,450**	**($43,201,450)**

**Two consultants were used for the UTAX project. The first was hired before the project to provide a functional analysis of the Tax Commission's operations, provide a data model, to develop re-engineering recommendations, develop a work plan for future work, and provide independent verification and validation of a transferred tax system. The second consultant was hired to provide consulting services related to an independent quality review of the UTAX project.*

Substantial Internal Resources Used

The Tax Commission spent $10.2 million in payroll costs for the UTAX project

As reported to the Legislature, several Tax Commission employees were used to develop and implement the UTAX project. In total, the Tax Commission allocated $10.2 million in payroll costs (for both permanent and seasonal employees) to the UTAX project. This cost averages out to 32 permanent FTEs per fiscal year and 20 seasonal FTEs per fiscal year for the duration of the project.

According to a January 1998 report presented to the Joint General Government and Capital Facilities Appropriations Subcommittee, the Tax Commission said that "over 50 employees are assigned full time to the project." The project referred to is the CACSG system. The report also informs the legislative subcommittee that as these 50 employees return to their regular assignments, after CACSG is implemented, they will be replaced with employees who will focus on implementing the MVA and ADVR systems.

For fiscal years 1998 through 2002, the Tax Commission allocated an average of thirty-two permanent employees on both a full and part-time basis for the UTAX project. For fiscal years 2001 and 2002, the Tax

Commission allocated an average of twenty seasonal employees on a full and part-time basis for the UTAX project. Figure 5 indicates the number of hours expended and FTE equivalents, based on a 2,080 hour work year, used for the UTAX project each year.

Figure 5. Numerous Permanent and Seasonal Employees Were Assigned to UTAX. The Tax Commission assigned an average of 32 permanent FTEs and 20 seasonal FTEs to the UTAX project.

Fiscal Year	Total Hours	FTE Equivalent
Permanent Employees		
1998	75,302	36
1999	92,577	45
2000	67,252	32
2001	71,806	35
2002	21,450	10
Average Permanent	**65,677**	**32**
Seasonal Employees		
2001	53,588	26
2002	29,292	14
Average Seasonal	**41,440**	**20**

Expenses related to the employees' work on the UTAX project total $10.2 million from fiscal year 1998 through fiscal year 2002. The breakdown each year is shown in Figure 6.

Figure 6. Permanent and Seasonal Employee Costs Charged to UTAX Exceeded $10 Million. The Tax Commission paid $10.2 million in payroll expenses to employees assigned to UTAX for the duration of the project.

Fiscal Year	Payroll Cost
1998	$ 2,017,207
1999	2,696,324
2000	2,003,946
2001	2,115,864
2001 Seasonal	446,623
2002	664,925
2002 Seasonal	274,917
Total:	**$10,219,806**

Thirteen employees received promotions due to increased responsibilities under UTAX.

During the project, thirteen employees were promoted to either act as a project manager or serve in some other project management level position, or to fill the gap from the person selected for the project. All thirteen of these employees received an average four steps each. Increases ranged from two to eleven steps, for promotions. The average increase was $1.94 an hour. All but one employee retained the step increases after the project was completed. According to the Department of Human Resource Management, this practice is in accordance with state policy.

No new employees were hired for the UTAX project.

In connection with human resource expenses, we were asked to verify any new FTE positions that the Tax Commission was allotted during this time. During fiscal years 1998 through 2002, the Tax Commission increased their FTE count by 78 employees. However, 76 of the FTEs were due to the state absorbing two county motor vehicle divisions, as required by law. The other two were FTEs hired for two projects unrelated to UTAX. Consequently, we believe that there were no new FTEs hired in connection with the UTAX project.

Completing Systems for Contract's Target Price Was Unlikely

We do not believe that AMS could have delivered the systems, as referenced in the contract, without exceeding the $34 million target price. As mentioned, since the target price was drastically reduced after the price proposal itemized out each system, we cannot make a comparison of costs to budget for each system. However, in analyzing the cost for each system relative to the percentage of the target price, we can conclude that CACSG and MVA exceeded expected costs.

The price proposal submitted by AMS estimated the cost and percentage of each system under the contract. The amounts below are projections based on the bid at $43 million since it was at this price that the systems were itemized. The itemized costs are listed in Figure 7 below.

Figure 7. Projected and Common Costs Allocated for Each Systems. The Tax Commission was able to allocate the projected and common costs for each system in the price proposal.

System	Projected Cost	Percentage of Project
CACSG	$ 2,914,850	7%
MVA	8,493,260	20
ADVR	19,095,460	44
Common Costs*	12,588,737	29
Total Projected Costs:	**$43,092,307**	**100%**

** Common Costs are costs not directly attributable to a single system, including start-up costs, salaries, fixed costs, etc.*

Figure 7 shows how the Tax Commission was able to itemize out the systems and applicable percentage of each system under the original bid in price proposal. At the time it was unclear how the common costs would be allocated to each system, so they were grouped together. Once the contract was reduced beyond $36.3 million, to the $34 million target price, we were told that AMS said they could no longer price out each system individually.

The actual costs attributable to each system totals $27.1 million. Figure 8 below shows actual costs attributable to each system. The figure does not include consulting fees, payroll costs, and current expenses since these items were not a part of the contract. During the project, common costs were allocated to each system.

Figure 8. Actual Costs as Applied to Each System. Actual costs for each system, as a percentage of the total project, are different than projected costs.

System	Actual Cost	Percentage of Actual Costs
CACSG	$ 7,065,230.36	26%
MVA	16,305,552.13	60
ADVR	3,817,177.35	14
Total System Costs:	**$27,187,959.84**	**100%**

Figure 8 explains that the Tax Commission paid the contractor $27,187,960 for CACSG, MVA, and the attempted implementation of ADVR.

If implemented, AMS would have had to deliver Advantage Revenue for 43% less than bid to stay under the contract's target price.

Referring back to Figure 7 which contains projected costs, when UTAX was bid, the ADVR system was allocated to cost at least $19 million or 44 percent of the bid price of $43 million, not including common costs attributable to ADVR. Upon completion of the project, CACSG cost $7 million and MVA cost $16.3 million, for a total of $23.3 million for the two systems. In order for the UTAX project not to exceed the target price of $34 million, ADVR would had to have been completed for $10.7 million or 31 percent of the target price. ADVR, for a price of $10.7 million, is 43 percent less than the original bid of $19 million.

Systems under UTAX could have cost as much as $46.3 million if Advantage Revenue was implemented.

Under another analysis, we believe that the systems under the UTAX project could have cost as much as $46.3 million if ADVR was implemented. For analysis purposes we took the actual costs of CACSG and MVA, $7 million and $16.3 million respectively (Figure 8 above), and the projected cost of ADVR from Figure 7 above, $19 million. We then allocated a conservative $4 million, roughly one-third of the common costs, to the $19 million projected cost of ADVR to get a potential final cost of ADVR. Using this analysis, ADVR could have cost as much as $23 million. Therefore, if CACSG cost $7 million, MVA $16.3 million, and ADVR $23 million, the total system costs could have totaled $46.3 million. Under this analysis, the system costs could have exceeded the target price of $34 million by $12.3 million. This does not include the other costs associated with the UTAX project as described in Figure 4.

Tax Commission officials agree the contract's target price was too low to cover costs had Advantage Revenue been implemented.

We do not believe, nor have we been able to identify, any communications between the Tax Commission and AMS indicating ADVR could be completed for 43 percent cheaper than bid. Tax Commission management agrees. They stated that if the project was to be completed in whole, as the response to the Request for Proposal suggested, the master agreement governing the project would had to have been changed to increase the price to complete the contract. The contract could not have been completed for $34 million.

As project costs increased, it seemed clear that there was no way the Tax Commission was going to be able to complete the UTAX project for the contract's target price. In October 1998, this was communicated to the project Executive Review Committee, which consisted of officials from the Tax Commission, the Governor's Office of Planning and Budget, the Legislative Fiscal Analysts Office, and the Division of Finance. The Executive Appropriations Committee was informed of the cost increases in December 1998. It was expected that project costs would exceed the contracted price of $34 million and would more likely be closer to the $40 million original bid by AMS. However, we found that system costs had the potential of being as high as $46.3 million.

Considerations for Future Systems Projects

The benefit of hind-sight allows us to offer principles to consider with future systems projects.

With the benefit of audit review and hindsight, we believe it is helpful to compile a list of important principles to consider when initiating large systems development projects. We compliment the Tax Commission for moving forward with the UTAX modernization project in the face of inherent risks and high failure rates which occur in similar projects nation-wide. We recommend the following observations to the Tax Commission and other agencies who undertake large projects in the future.

1. Based on consultation with legal counsel, assertively exercise contractual rights, such as the ability to assess penalties for breach of contract or outright project default.

2. Build time in for project delays.

3. Require contractors to provide detailed project costs to act as a benchmark for budget analysis.

4. When possible, compensate contractors only after satisfactory receipt of system deliverables.

5. Adequately communicate the cost and use of internal resources to all appropriate governing bodies.

In the next chapter we detail our conclusions in connection with the audit objective to review the systems which were part of the UTAX project.

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Chapter III
UTAX Systems Had Challenges Yet Offer Many Improvements

One of the three UTAX systems was abandoned, while the other two faced major adjustments and delays and reworks.

As with UTAX contract, management and funding concerns discussed in Chapter II, there were also problems with the three separate computer modernization systems under the UTAX project. Individually and collectively, these problems affected the project timeliness and funding.

- First, the underlying accounting and compliance tracking system, Advantage Revenue (ADVR), was abandoned after the Tax Commission spent $3.8 million on design and analysis of the system.
- Second, the Motor Vehicle Administration System (MVA) encountered major delays and still faces lingering issues.
- Third, the new collections system, known as the Computer Assisted Collection System for Government (CACSG), required significant systems "fixes" which caused twenty-five months of reworks.

In this chapter we review these three systems in accordance with our audit objective to "determine what products and systems are now utilized (or were abandoned) by the Tax Commission in connection with UTAX funds and resources."

Abandoning Advantage Revenue Portion of UTAX Project Was Costly

Implementation of a new underlying tax system, known as "Advantage Revenue," was abandoned after a $3.8 million investment by the Tax Commission.

Advantage Revenue (ADVR) was abandoned after the Tax Commission decided that design and analysis towards the system was unsuccessful. This occurred after a $3.8 million investment had already been made toward the product. ADVR was envisioned to provide the underlying compliance tracking and accounting system for the modernization project. Since it was not implemented, the Tax Commission has been using its existing Legacy system which has required continual upgrades.

Advantage Revenue Abandoned After Attempted Design and Analysis

The implementation of ADVR was put on hold and eventually, at the June 15, 1999 Executive Appropriations Committee meeting, Legislative Fiscal Analysts stated that ADVR would be postponed indefinitely. The Advantage Revenue (ADVR) portion of the project was dropped after seventeen months of attempted design and analysis. According to Tax Commission officials, the product was less developed than the Tax Commission had believed.

Tax Commission officials said the Advantage Revenue system was less developed than they were led to believe by the contractor.

It is believed by some Tax Commission management and employees that the contractor, AMS, oversold ADVR. Tax Commission employees believe that the product did not exist as was promised. They believed that "AMS' marketing was ahead of its engineering." One official said that when AMS presented ADVR, they used all the key words (e.g. "internal controls," "general ledger," "reconciling system," "double entry," etc.) to show ADVR would produce results that were in accordance with Generally Accepted Accounting Principles (GAAP) and the Governmental Accounting Standards Board (GASB) pronouncements (GAGAS). The accounting end of the project, ADVR, *sounded* great; however, the Tax Commission believed that "AMS could not deliver."

Advantage Revenue Was Envisioned To Provide Underlying Modernization Tools

The vision behind ADVR was to allow the Tax Commission to have an overall picture of a taxpayer's different accounts and all of its dealings with the agency. Motivation behind ADVR was that each tax type (sales, withholding, corporate, income) had its own independent system. One entity could have several different tax accounts with different needs. This made it difficult to get the big picture on any specific account holder and all the accounts associated with the taxpayer.

Advantage Revenue would have given the Tax Commission a "big picture" of all tax accounts. It would also bring about compliance with accounting standards.

In addition, ADVR was to provide the Tax Commission with an accounting system which meets all of the standards and requirements of GAAP/GAGAS. The Tax Commission wanted to upgrade their existing accounting system. According to one official, ADVR was to provide improved accounts receivable reporting, trust and agency processing, suspense accounting, and comments on account. In addition, the Tax Commission was also counting on ADVR to provide a flexible system that would allow them to grow and change. ADVR was to be the underlying system that CACSG pulled its compliance tracking and accounting abilities from. However, because ADVR was abandoned, none of these capabilities—which were some of the driving forces behind the UTAX project—were received.

Because Advantage Revenue was not implemented, the Tax Commission is adjusting current internal systems.

Since ADVR was not completed, the Tax Commission still faces the challenges discussed above. However, the Tax Commission is currently working on a new phased-in approach to upgrading by remodeling their old tax systems.

MVA Faced Significant Delays and Concerns but Offers Improvements

A limited review of the new motor vehicle system showed significant benefits exist despite a delayed implementation period.

Another major system implemented as part of the UTAX project was the Motor Vehicle Administration system (MVA). MVA is an automated vehicle titling and registration system. While the Tax Commission did eventually implement MVA, its delivery was plagued by significant delays. In addition, some concerns of the system still exist. Due to the time limitations of this audit, we were unable to completely review all the issues surrounding MVA. However, we were able to do a preliminary review of the system and found that MVA does offer solutions to many of the problems the Division of Motor Vehicles (DMV) faced.

MVA Implemented Two Years Late

As discussed previously, MVA's implementation was delayed by two years. MVA was initially scheduled for implementation in April 1999 but was not fully implemented until April of 2001. April 2001 began a "roll-out" implementation where MVA would be rolled-out to DMV offices throughout the state, gradually throughout 2001. The final DMV office received MVA in November 2001. As reported by Tax Commission officials, during the two years from expected to actual implementation, delivery deadlines were missed. At times when delivery deadlines *were* met, an inadequate product was delivered. The following examples illustrate some of the deadline concerns the Tax Commission faced during the project.

- An internal e-mail between members of the Tax Commission's UTAX project management reflected concerns about AMS missing deadlines stating, "Starting in June, I believe, we kept hearing that a new schedule was forthcoming (the oft quoted 'two weeks' came to mean an indefinite amount of time)."

- Another e-mail from the Tax Commission's UTAX project management to AMS project management stated, "I am concerned when current activity suggests [the contractor] will not meet the commitment relative to the Oct 29 build (there will be a build, but it will not meet expectations)."
- Finally, a memorandum from AMS to the Tax Commission expresses another anticipated delays. "There is no substantial reason why we could not present [the new release] today, but frankly, we 'set a high bar' for our AMS testing efforts on [the new release], and we want an opportunity to exceed our mark. As a result, we have decided to cancel the demonstration scheduled for today, and take a few additional days to improve our [system functions] and present to the Commission with greater confidence." We question why, if AMS had "set such a high bar," they would find it in good practice to delay yet again.

Some Concerns Still Exist With MVA

Several issues were raised during the audit concerning the challenges still facing MVA. Two examples of issues still facing the MVA system are that:

- Counties complain they are unable to reconcile billing statements they receive from the state for services provided by the state on behalf of the counties to their own records for those services.

- It is unclear if customer wait times have improved because recent studies have not been verified.

MVA does not allow counties to adequately reconcile their billing records with state billing records.

Counties Are Having Difficulties Reconciling. We spoke with representatives from three county assessor offices about their experience with MVA. All three complained about an inability to reconcile some of their billing records with state billing records. The counties are having trouble reconciling their registration reversal records with the state's reversal records; they believe MVA is the problem. We did not have time to fully research this issue.

DMV Study May Show Less Customer Wait-time. Because we did not have time to conduct a time-motion study, we are unable to verify if MVA has improved customer wait-time. However, officials at the DMV have conducted their own time-motion study. Results from the DMV study indicate that some types of transactions have an improved customer wait-time while other transactions take longer under MVA.

Some of the more common transactions require less customer wait-time under MVA while others may take longer.

For example, the study indicates that transactions involving duplicate registrations, impounds, permits, plate replacement, and renewals take less time under MVA than they did under Legacy (the old titling and registration system). These tasks constitute about 80 percent of MVA transactions. Other tasks, such as decal replacement, duplicate titles, registration changes, and title corrections, to name a few, take longer under MVA, but constitute a small portion of the MVA workload. However, the Tax Commission has pointed out that their sample size of 942 was too small for statistical validity.

MVA is indeed an improvement over the old system but lingering issues are a cause for concern and the Legislature may want to review the system further.

MVA Does Offer Beneficial Solutions

MVA offered a solution to many of the problems with the old system including:

- improved turn-around time in processing,
- less likelihood for errors, and
- faster updates to law enforcement.

Processing turn-around time under MVA takes 1-2 days compared with the old wait of many weeks.

MVA Has Improved Processing Time. The turn-around time for processing and issuing vehicle titles under MVA has drastically improved. Under MVA, it generally takes between twenty-four and seventy-two hours. By contrast, under the old motor vehicle system, Legacy, the processing of all titles, registrations, and renewals was part of an elaborate back-end processing system that took months. This Legacy system dated back to the late 1970s and was archaic. It was not designed to handle the magnitude of transactions it was being forced to handle. Titling under the Legacy system took as long as four to twelve weeks after it was requested by the customer. According to Tax Commission officials, this caused many problems with financial institutions because their loans are not fully secured until they receive the title.

Because data can be entered into MVA while the customer is still present, errors have been reduced.

Errors Likely Reduced Because of MVA. Under MVA, errors in inputting title and registration information are lessened because all information is entered in real time, while the customer is present. In the past, the DMV's work under Legacy was highly labor intensive as it required the manual input of every title, registration, and renewal; it created an environment ripe for error. Not only was there a high risk of error, there was a risk that some customer services may have been compromised.

Under Legacy, if there was a question regarding a customer's title, registration, or renewal, since these were all processing on the back-end when the client was not present, the client would have to be contacted by phone, if possible, but usually by mail. This need for follow-up contact would delay the processing of the service. A backlog of work could cause a delay in data entry input up to twelve weeks.

Law enforcement agencies have benefitted from MVA with faster vehicle registration updates.

Law Enforcement Has Faster Updates with MVA. Finally, under MVA, law enforcement is now updated within a few days of motor vehicles record updates. Under Legacy, it could take months for law enforcement to be updated on changes in vehicle ownership and registration. This delay in updates compromised law enforcement's ability to properly identify the accuracy of vehicle registration and properly release impounded cars (since law enforcement must be contacted for a vehicle to be released from impound).

CACSG System Beneficial but Adjustments Caused Major Delays

The new collections system (CACSG) is beneficial but was significantly delayed by adjustments.

We believe that the Computer Assisted Collection System for Government (CACSG) currently offers some great solutions to previous problems and has great potential. However, the CACSG system was delivered to the Tax Commission requiring material reworks which took twenty-five months to complete, as discussed in this section. Note that an additional significant concern about the accuracy of reported financial benefits attributable to the CACSG system will be discussed separately in Chapter IV.

CACSG Offers Many Benefits

We believe the implementation of CACSG will, in time, be a very positive and cost effective decision for the collection of delinquent taxes. CACSG is providing many benefits that improve efficiency and effectiveness.

With CACSG, agents can contact a greater number of delinquent taxpayers.

CACSG Can Lead to Increased Productivity. CACSG offers an opportunity to increase the productivity of the district collection agent by greatly reducing the amount of time they spend in cars visiting the delinquent tax payers. The agents can contact far more delinquent taxpayers by phone; agents can then use a car to conduct face-to-face interviews only when taxpayers that have demonstrated a need for such visits.

Case Consolidation Under CACSG Is More Efficient. CACSG consolidates all accounts into a single case. When an agent opens a case, all the delinquent liabilities (sales tax, withholding tax, income tax) are shown rather than just the single delinquency they may be reviewing. Prior to CACSG, the agents had to manually identify all other delinquent accounts and could easily miss delinquent tax debt. Now all accounts can be consolidated under the same action, thus saving agents time and improving efficiency.

CACSG Prioritizes Delinquent Cases. Under CACSG, the cases with the highest priority are given first attention. Although this happened prior to CACSG, it was a manual process. Management can program the system with specific criteria and all accounts meeting that criteria will be processed first. For example, a case could be lower priority (balance under $1,000) and have new debt posted to the account which automatically places the case in the highest priority function.

CACSG benefits include:
- **case consolidation**
- **case prioritization**
- **case delegation (so that more cases get attention).**

CACSG Deters Agents From Manipulating Caseload. Under CACSG, agents do not have the option of scanning through the cases on the work list and deciding which cases they prefer to work. Prior to CACSG, there were instances of agents picking and choosing which accounts they wanted to work, which resulted in some accounts not being worked for long periods of time. CACSG improves efficiency because all cases get the required attention and agents do not have to create their own work lists.

CACSG Automates Former Manual Processes. CACSG assists management and workflow by automating several tasks. For example, CACSG:

CACSG provides the benefits of a more automated compliance tracking system.

- monitors the taxpayer's compliance with agreed upon payment terms to assure that the payments are timely and remitted in full,
- generates numerous automated correspondence to taxpayers regarding their accounts, and
- provides numerous statistical reports of activity and various notes documenting action taken on individual cases.

After reviewing numerous cases in the CACSG system, we believe the system is still a work in progress. We have identified numerous deficiencies with the system and recognize the system needs additional revisions which may be a few years off. However, we can see the potential impact the system will have on the Tax Commission's ability to collect future delinquent taxes. We also believe the system is currently improving the efficiency of the collection process.

CACSG System Took Significant Time to Compete

As scheduled, CACSG took seven months to first implement; however, it took an additional twenty-five months to bring the system up to the needs of the Tax Commission. In March 1998, Phase I of CACSG was "turned on." However, CACSG was to see two more upgrades, Phases II and III, before the Tax Commission felt the system was where it should be. Phase II ran from February 1999 to October 1999 (8 months) with the aim to fix several problems created from a lack of understanding of the system, as well as other problems. Phase III ran from September 2000 to February 2002 (17 months) and was aimed at providing archiving and other miscellaneous needs.

CACSG was meant to give the Tax Commission early revenue benefits. Instead, adjustment reworks were needed.

CACSG was the UTAX project's "early win" which means that AMS focused on CACSG being implemented quickly—able to produce benefits immediately. Ironically, this "early win" ended up taking thirty-two months (the initial seven months from August 1997 to March 1998 plus Phases II and III) before the Tax Commission was satisfied with the product. Phase IV is now in process where the system is being fitted for "wish list" items not originally envisioned.

CACSG Not Entirely as Tax Commission Envisioned

Indeed, CACSG may have been initially implemented "on-time," but according to Tax Commission officials, the program was lacking what they needed. Significant adjustments, or "fixes," as referred to by Tax Commission staff, were needed before the system performed as envisioned.

CACSG was meant to meet 80% of the Tax Commission's needs upon implementation. However, agency officials say it was closer to meeting only 40% of needs.

Tax Commission officials state that AMS was to provide them with an "80/20" off-the-shelf system. An 80/20 off-the-shelf system means that AMS was to provide a system which met 80 percent of the Tax Commission's needs with the expectation that the system would have to be adjusted to fit the other 20 percent of the needs. Tax Commission officials report the system more closely resembled a 40/60 off-the-shelf product—much lower than expected. This inadequacy required the Tax Commission to adjust or "fix" the system substantially more than expected.

Phase I CACSG was a workable system for the Tax Commission, but in order to see the anticipated benefits more upgrades were necessary. Tax Commission officials said the issue was not a lack of receiving certain parts of CACSG they had expected, it was that the parts they received were *different* than expected. For example, two functions that did not meet their expectations were the payment agreement and future date calculation functions for pay-off scenarios.

Payment Agreement Function Was Unusable in CACSG. The payment agreement function as received was completely undesirable to the Tax Commission. As explained by a Tax Commission official, the payment agreement module CACSG initially contained took any excess payment over a customer's minimum required payment, applied it to the account, then held off on billing the customer until that excess was consumed. In the collection of taxes, when a taxpayer makes a payment in excess of a monthly agreed upon amount, that amount is applied to the balance but the taxpayer would continue to receive billing statements each month until the full amount owing was paid. It is imperative that taxes be collected as soon as possible.

Initially CACSG had two errors:
- **it would stop bills to delinquent tax-payers when excess payments were received**
- **it would not allow collections agents to compute pay-off scenarios.**

CACSG Did Not Offer Needed Pay-off Scenarios. The CACSG system was also unable to calculate a hypothetical payoff date and amount without creating an actual payment plan. This impeded the Tax

Commission's ability to tell clients when their accounts would be paid off by making certain payments. One Tax Commission official said this inability to give pay-off scenarios was not good customer service for taxpayers.

Employees in the Tax Commission's Technical Management division (TM) were also dissatisfied with other aspects of the CACSG system. For example, TM was required to do a lot of unexpected system cleanup after Phase I implementation. TM had expected that AMS was going to clean up the system after Phase I implementation. This system clean up utilized a lot of TM resources and was time consuming.

Tax Commission technical staff were left with a lack of confidence in the vendor because they left some sections of CACSG incomplete.

Of greater concern is that TM was left with a lack of confidence in AMS. Tax Commission officials and TM officials both said that TM was uncertain of AMS' ability to get done what the Tax Commission wanted. As discussed earlier in the chapter, with the implementation of the motor vehicle system (MVA) still pending, this lack of confidence in AMS was a sign of poor things to come.

As in Chapter II, we offer a summary list of important observations for the Tax Commission and other agencies to consider when undertaking large systems development projects in the future.

Considerations for Future Systems Projects

1. Proceed cautiously when implementing newly developed systems. For example, systems released as "Version 1.0" will likely have costly delays, significant program changes, or may have to be completely abandoned.

2. Prior to project engagement, ensure that all parties have a congruent vision and goals of what the project will achieve. Revisit goals at key milestones during the project.

Chapter IV
UTAX Collection System Revenue Uncertain

The Tax Commission measured the benefits of the new collections system (CACSG) too broadly.

Initially, it was estimated that the UTAX project would increase tax revenues by $20 million annually through the entire modernization project. However, as the project proceeded, benefits estimates reported to the Legislature were reduced to a range of $6.7 to $13.8 million annually. These benefits are generated from the UTAX system responsible for increased revenues: the Computer Assisted Collection System for Government (CACSG). As part of this report, members of the Legislature asked us to verify the amount of the actual increase in revenue realized as a result of UTAX. Data available at the Tax Commission does not allow us to specifically identify the annual increased revenue resulting from UTAX. We can conclude that the actual increase in revenue as a result of the UTAX project is not greater than $4.3 million annually. But, it is more likely that this figure is overstated because the Tax Commissions' CACSG data includes a significant amount of delinquent tax dollars which are not associated with the CACSG system, or may not be delinquent at all. Consequently, financial benefits from the UTAX project are significantly below expected benefits estimates reported prior to the project.

Communication to Legislature of Expected Benefits Uncertain

Initial UTAX benefit estimates of $20 million annually were lowered and reported to a legislative committee

Two benefit estimates were published with respect to the UTAX modernization project. The initial estimate was the expectation of a $20 million return on investment annually for a complete modernization system. The second estimate projected $6.7 to $13.8 million annually in increased revenues for only the collections (CACSG) portion of the modernization project. The difference between the $20 million and the $6.7 to $13.8 million were benefits expected from the Advantage Revenue (ADVR) system. Because ADVR was dropped during the project, the expectation of the full $20 million was no longer reasonable.

As the project progressed, different benefits estimates were reported to at least two different subcommittees at different times. Because we could find no documentation, we are uncertain if the information shared at these meetings was communicated between the two subcommittees. This may explain why benefit expectations remain high among legislators.

The first measure of benefits, totaling $20 million, was presented to the Commerce and Revenue Appropriations Committee in January 1996. The projection was based on estimations from eleven other states, taking into account Utah-specific tax revenue. This benefits estimate had been published in *UTAX Building Today for Tomorrow*, in September 1995.

The second measure of benefits, showing expected returns only from CACSG, was used by the contractor (AMS) in the price proposal. According to a brief published in January 1998 by the Tax Commission to report progress on the UTAX project, AMS estimated the collections system to increase revenue by $6.7 to $13.8 million annually. Records indicate that this brief was presented to legislators at the Joint General Government and Capital Facilities Appropriations Subcommittee on January 30, 1998.

We found no records to show whether the Legislature was told that some benefits would be lost when ADVR was dropped.

By November 1998, about a year and a half after the contract for UTAX was made effective, ADVR was dropped. When this occurred the project lost about half of its potential benefits. Projected benefits from ADVR and other minor systems were estimated to range from $7.8 million to $14.1 million annually. In the June 15, 1999 Executive Appropriations Committee meeting, the Tax Commission stated that due to the product's inadequacies, and a recent lawsuit filed by the state of Mississippi against AMS based on a lack of performance from AMS, ADVR would be postponed indefinitely. We could find no records to indicate whether it was communicated to the Legislature that by dropping ADVR, some benefits would be lost.

Financial Benefits of New Collection System Are Unknown

The Tax Commission's measurement methodology gives CACSG more credit than it merits.

Despite the Tax Commission's efforts to measure the financial benefits of CACSG, the true financial benefits still remain unknown. We believe the measurement the Tax Commission uses to calculate the benefits of the CACSG system is too broad, giving CACSG more credit than it merits. The Tax Commission uses overdue taxes collected, or "delinquent dollars collected," as a measurement for CACSG benefits. We have determined that the measure "delinquent dollars collected" is too broad because it includes collections that would have been received regardless of CACSG.

In other words, the measure includes a significant portion of delinquent tax dollars that come to the Tax Commission prior to entering the CACSG system. In our analysis, we discuss how the Tax Commission's measurement is too broad and how this broad measure makes the benefit calculation unreliable.

The Tax Commission reports that during the four complete fiscal years since the implementation of CACSG, they have increased the collection of delinquent dollars by an average of $4.3 million annually, which they attribute to CACSG. Regardless of the fact that we are uncertain this total can be attributed solely to CACSG, the $4.3 million is far short of the $6.7 to $13.8 million range projected. The audit team is uncertain of CACSG's contribution to the reported increase in delinquent tax revenues ($4.3 million annually). Again, this is because the Tax Commission does not have the means to sufficiently separate the data.

Quick and measurable additional revenue was expected from CACSG.

CACSG was purchased to modernize the Tax Commission's collections process. As mentioned in Chapter III, CACSG was the system intended to produce increased revenues through delinquent tax collections, as part of the UTAX project. CACSG was designed to allow a more systematic method for collecting delinquent tax dollars. It was meant to be an "early win"—in other words, an early benefit of the overall project which would provide additional collected dollars immediately. This expectation is in question.

We acknowledge that the task of measuring the benefits of such a complicated systems upgrade is a difficult task. The Tax Commission developed the benefits methodology in an uncertain environment. They began work on the benefits methodology five months before even the initial phase of CACSG was complete. At that time, CACSG was a work in progress and it was unclear exactly how and when CACSG would affect the collection of delinquent dollars. After devoting time to researching and testing the methodology, they decided to use "delinquent dollars collected," a measure that could be consistent both before and after CACSG. After the methodology was developed, executive management requested a review from an independent entity. Consequently, the State Auditors Office did a limited review of the benefits methodology and concluded that it was fair and reasonable. The State Auditors Office accepted the assumption, as did the Tax Commission, that the delinquent dollars collected which were *not* attributable to CACSG would be constant through the period under review.

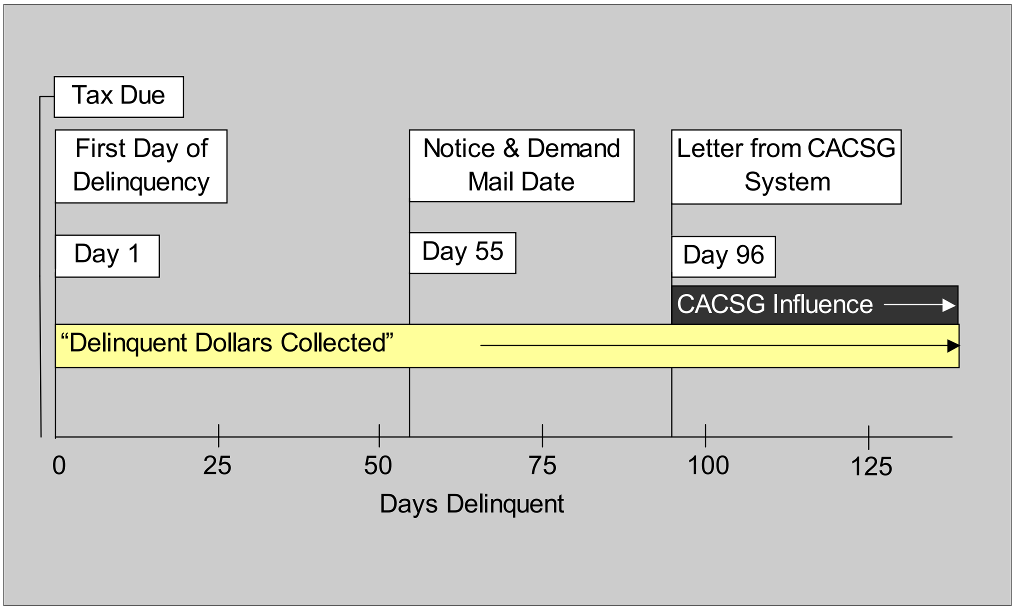
We have learned, however, during the course of our audit that delinquent dollars collected that are not attributable to CACSG do *not* remain constant. Therefore, we believe that the measurement is not specific enough and therefore not accurate for the intended purpose of measuring revenue benefits attributable to CACSG. In the next section we show why delinquent dollars collected fails to provide an accurate measure of the revenue benefits of the CACSG system.

Broad Measurement Gives CACSG Too Much Credit

Too much credit for collecting delinquent dollars is given to CACSG. The time line in Figure 9, which is taken from an actual case typical of most delinquent cases, shows how some delinquent dollars are mistakenly counted as benefits received due to CACSG. The numbers on the time line represent the number of days the tax was past due or delinquent. On Day 1, the tax became delinquent; Day 55 the "Notice & Demand" letter was mailed; and, on Day 96 a letter from the CACSG system was sent indicating the delinquency had entered CACSG.

Figure 9 time line demonstrates that CACSG is given credit for funds received before entering CACSG.

Figure 9. Chronological Collection Analysis From Actual Case Shows Measure is Too Broad. The Tax Commission's methodology gives CACSG credit for collecting "delinquent dollars" from Day 1 even though the influence of CACSG does not start until Day 96.



In Figure 9, the letter from the CACSG system on Day 96 was the first collection activity related to CACSG in this selected case. The previous letter, "Notice & Demand," was produced by the Legacy system (another information system in place prior to CACSG) and was not affected by CACSG. So, if the taxpayer had paid anytime between Day 1 and Day 96, the Tax Commission would have counted the payment in the benefits calculation even though CACSG had no influence on the payment. These funds would have been collected regardless of CACSG. Consequently, to count these dollars overstates the revenues attributable to CACSG.

Tax Commission's Broad Measurement Makes Benefit Calculation Unreliable

Unknown break-down of "delinquent dollars collected" makes benefits calculation unreliable.

The Tax Commission's broad measurement leaves too much in question. As mentioned, the Tax Commission reports that "delinquent dollars collected" have increased by an average of $4.3 million annually in the four years since CACSG was implemented. However, the current measurement provides an unreliable calculation of benefits because the individual sections which make up "delinquent dollars collected" are not tracked over time.

The three sections which make up the measure of "delinquent dollars collected" are:

1. A payment which comes in on its own (it comes in late, but requires no collection efforts),
2. A payment which comes in because of a Tax Commission letter called "Notice & Demand," or
3. A payment which comes in because of a collections agent using the CACSG system.

The Tax Commission groups all "delinquent dollars collected" together. CACSG is one of three ways that delinquent payments can be influenced.

As mentioned, for the purpose of their benefits calculation, the Tax Commission does not distinguish between the three sections— essentially grouping all "delinquent dollars collected" together. Without knowing the breakdown of the underlying sections, there is uncertainty in how much of the revenue can be attributable to CACSG. In other words, the benefits derived from CACSG cannot be separated from the benefits derived from the other two types. Therefore, possible fluctuation among the sections from year to year introduces some significant uncertainty into the benefits calculation. Due to this uncertainty, we conclude that the real financial benefits of the CACSG system cannot be determined by measuring "delinquent dollars collected."

As in Chapters II and III, we offer a few important observations for the Tax Commission and other agencies to consider when undertaking large systems development projects in the future.

Considerations for Future Systems Projects

1. Ensure that there are adequate ways to measure project successes, such as revenue increases.

2. Ensure that benefits from new systems are measurable against prior processes in order to gauge system benefits.

3. In order to provide accurate analysis of benefits a new system will offer, ensure that the benefits measurement is defined narrowly enough so that only the benefits attributable to the new system are captured in the measurement.

4. Ensure adequate accountability through constant communication of project costs and benefits to all appropriate governing bodies.

To summarize, this chapter has shown that a preliminary report of UTAX generating $20 million in new annual revenues was revised downward but only partially communicated to the Legislature. Expectations should have been revised downward. Still, actual new revenues of $4.3 million per year (over a four year period) were lower than the revised estimate of $6.7 million to $13.8 million per year. The amount of new revenues attributable specifically to the new CACSG collections system cannot be accurately determined because the methodology used is too broad a measure and also inaccurately includes some non-delinquent payments. Considerations we offer for more accurately measuring benefits received from new systems could assist the Tax Commission and other agencies in the future.

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Agency Response

February 21, 2003

Mr. Wayne L. Welsh
Legislative Auditor General
130 State Capitol
Salt Lake City, Utah 84114

Re: A Performance Audit of the UTAX Project

Dear Wayne:

Two years ago, at about this same time of year, the Tax Commission wrestled with an important question. Were we ready to turn on the new motor vehicle titling and registration system? We had watched as Nevada struggled through the roll out of their new system the year before, yet we knew we had learned from their mistakes and done much to avoid a similar experience. The system, while not as polished as we might have liked, finally appeared ready to be put to use. We had intentionally delayed our roll out to get a better product, especially after our experience with the "on-time" roll out of our new collections system (CACSG). We were also moving into our busiest time of year.

Not long ago we celebrated as key members of that project team retired from state government. We celebrated because we recognized that we are better off, as are the citizens we serve, for having made the decision to roll out the new system. We started that roll out in April 2001, and finished in the fall of 2001 without serious problems.

As the legislative audit points out, the Tax Commission paid the contractor $27,187,960 that, in the end, resulted in two new systems: Motor Vehicle Titling and Registration (MVA) and Computer-Assisted Collection System for Government (CACSG). Each of these systems now brings measurable benefits, and will continue to do so as we improve them and get better at how we use them to serve the citizens of Utah.

The audit also mentions our aborted effort to put in place a new tax system called Advantage Revenue (ADVR). For what to us remain good business reasons, the Tax Commission made a decision to not continue our pursuit of this product. We did not, however, stop pursuing tax system improvements. Over the last few years we have put in place new services such as web-based filing for our income tax Telefile population, web-based filing for single place of business sales tax filers and, recently, an option for making tax payments via the Web using credit cards (fees apply). We have also shifted our focus to "remodeling" of our legacy tax systems to meet some of the objectives we had originally hoped to do with ADVR.

We believe the end result, while different in some respects than the original intent, is worth the investment. As with most investments, much of the return will come over time. We encourage the legislature to continue to support the Tax Commission's efforts to improve.

Might the same result have been achieved for less as suggested by the audit? The question, by implication, provides its own answer, as rare would be the situation where any effort could not have been improved with the benefit of hindsight. There are no errors of intent or willful disregard for good business practices in this situation, simply judgment calls that can easily be called into question as one looks back without the pressure of the situation to influence their thought process.

The Tax Commission forecasted increases in revenue due to this effort and came up with a way to measure those increases. The audit takes exception to this method, suggesting revenue increases are overstated. Does that mean Tax has seen no increases in revenue as a result of this effort?

We believe even the auditors would agree there have been increases in collection of delinquent revenue. The issue is how much. The Tax Commission accepts the auditors' argument that not all of our measured increase may be attributable to the implementation of CACSG. Tax would suggest, however, that at least some of the measured increase is attributable to CACSG. While not as much as originally hoped for, collection of delinquent revenue has increased since the implementation of CACSG.

The auditors also say the new collection system has great potential. This wording suggests to the Tax Commission we can get better at putting this system to use. This would also suggest that additional increases in collection of delinquent revenue could be expected as we make those improvements.

The Tax Commission is convinced we made the right decisions on this project. We now have two new systems that have brought and will continue to bring improvements in the way we do business. We will continue our efforts to improve in the tax area as well. Let us assure you that the Tax Commission takes this audit seriously and appreciates the recommendations that will help us as we approach projects in the future. We appreciated the professional effort of the auditors as they reviewed our work, and we hope that others are able to learn from our successes as well as our mistakes. We know that we have.

Sincerely,

Rodney G. Marrelli
Executive Director

Pam Hendrickson
Commission Chair

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