



Lawrence F. Alwin, CPA

June 28, 2000

Members of the Legislative Audit Committee:

The Teacher Retirement System (System) may not have the skills and controls it needs to complete the Benefit Services Transformation (BeST) project. After receiving some completed portions of BeST, the System canceled its contract with TRW, Inc., because the contractor could not meet the August 31, 2000, deadline. The System plans to complete BeST using its own staff; however, discussions with management indicate that skill and time requirements have not been adequately assessed. The System has spent \$10.8 million of the \$12.7 million projected total (excluding System salaries) on the project since its inception in 1997.

To better understand what completing BeST will involve, the System should:

- Define the roles and responsibilities of each functional group associated with the project (such as project management and internal audit).
- Reorganize and strengthen the project steering committee.
- Implement a well-defined, fully documented, integrated system development life cycle methodology (the plan that guides the development of automated systems).
- Use a qualified source to verify and validate selected deliverables (such as database and object-oriented deliverables) from the contractor before relying on them.
- Assess the technical and project management skills needed to complete the project.
- Develop and implement a current, realistic, integrated project work plan.

**What is BeST?**

BeST is a project that will replace existing mainframe systems with new technologies that are expected to increase efficiency. For example, school districts will be able to submit data to the System over the Internet. BeST will improve the delivery of benefits, but is not critical to the delivery of benefits. Existing mainframe systems process over \$2.8 billion in annual retirement benefits and refunds and will continue to do so.

Management agrees with our findings (see attachment for the full text of its response).

We will continue to monitor the System's progress. If you have any questions, please contact Carol A. Smith, CPA, Audit Manager, at (512) 936-9500.

Sincerely,

Lawrence F. Alwin, CPA  
State Auditor

tgc/Attachment

cc: Mr. Charles L. Dunlap, Executive Director, Teacher Retirement System  
Chair and Members, Teacher Retirement System, Board of Trustees

Robert E. Johnson Building  
1501 North Congress Avenue  
Suite 4.224  
Austin, Texas 78701

Phone: (512) 936-9500  
Fax: (512) 936-9400

**A Review of the Status of the  
Teacher Retirement System's  
Benefit Services Transformation Project**

SAO Report No. 00-019

# Management's Response

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## Teacher Retirement System of Texas

1000 Red River Street  
Austin, Texas 78701-2698

EXECUTIVE DIRECTOR  
Charles L. Dunlap

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June 12, 2000

Mr. Lawrence F. Alwin, CPA  
State Auditor  
P. O. Box 12067  
Austin, TX 78711-2067

Dear Mr. Alwin:

I would like to take this opportunity to express our appreciation for the efforts of your office and those of Les Bavousett in particular in reviewing the status of the BeST Project. TRS will continue to give due consideration to these recommendations as the project moves forward. This letter represents TRS management's response to comments contained in "A Review of the Status of the Teacher Retirement System's Benefit Services Transformation Project" to be presented to the Legislative Audit Committee by the State Auditor's Office. That letter notes six specific areas of concern. Responses to each are presented in the order in which they appear in the State Auditor's letter.

Statement 1:

Define the roles and responsibilities of each functional group associated with the project (such as project management and internal audit).

Response to Statement 1:

TRS concurs with this recommendation. TRS project management has begun assessment of roles and responsibilities associated with the continuing project planning process. These will be defined, documented and disseminated to appropriate personnel. Performance will be monitored.

Internal Audit is developing a plan defining their future role and objectives. Internal Audit will use a traditional audit approach to the project including periodic reviews with audit reports to be produced at the conclusion of each review. The plan will be completed by July 2000 as part of the FY 2001 Audit Plan development.

Est. Completion Date: 7/2000

Statement 2:

Reorganize and strengthen the project steering committee.

Response to Statement 2:

TRS concurs with this recommendation. The BeST Project Steering Committee has been re-organized as part of the continuation of the project under TRS management. A new team charter has been developed which outlines the responsibilities of the committee. The steering committee consists of the Chief Financial Officer, the Chief Benefits Officer, the Director of Management Information Systems and the BeST Project Manager. This composition has been established to insure that appropriate areas of the agency are represented in matters requiring steering committee action and that sufficient authority exists to carry out committee decisions. The steering committee meets on a regular basis. It is anticipated that monthly oversight meetings will include representatives of the State Auditor's Office, Legislative Budget Board, state Quality Assurance Team, and the TRS Internal Audit Department.

Status: Implemented

Statement 3:

Implement a well-defined, fully documented, integrated system development life cycle methodology (the plan that guides the development of automated systems).

Response to Statement 3:

TRS concurs with this recommendation. TRS will adopt and implement Rational Unified Process™ (RUP), a product of Rational Software, Inc. RUP is a Web-enabled software engineering process that enhances team productivity and delivers software best practices to all team members. This product makes the process practical by providing prescriptive guidelines, templates and examples for all critical object oriented development activities. RUP is a customizable framework, which can be readily adapted to support BeST work. It is tightly integrated with other Rational tools being used in the BeST project. This will allow development teams to gain the full benefits of the Unified Modeling Language (UML), software automation, and other industry best practices. Although tailored primarily for object oriented development, RUP templates can be applied to batch Natural development processes as well.

Est. Completion Date: 8/2000

Statement 4:

Use a qualified source to verify and validate selected deliverables from the contractor before relying on them (such as database and object-oriented deliverables).

Statement 5:

Assess the technical and project management skills needed to complete the project.

Response to Statements 4 and 5:

Because statements 4 and 5 above both relate to an assessment of certain aspects of the BeST project, they are being addressed in a single response.

TRS concurs with these recommendations. The TRS Steering Committee has had preliminary discussions regarding a possible independent assessment of certain aspects of the BeST project. We believe that some level of continuing assessment may be appropriate with respect to project oversight as a whole.

Because of the continued involvement of the various stakeholders as the project has proceeded, project management believes that deliverables received to date are reliable. TRS Internal Audit was actively involved in reviews of several deliverables as part of this effort. Given the duration of the project however, it is inevitable that a re-examination of some assumptions made during the early stages of the project is warranted. An assessment of project management skills could also provide valuable information and help improve the probability of success. It should be noted that TRS has retained the services of certain contract staff who were previously involved with the project while under external management. These individuals have a strong background in software development and project management and will be able to provide expertise and advice as the project progresses. At this point decisions regarding an independent assessment are under consideration.

Est. Completion Date: 10/2000

Statement 6:

Develop and implement a current, realistic, integrated project work plan.

Response to Statement 6:

TRS concurs with this recommendation. TRS project management is in the process of developing a work plan for the BeST Project under agency management. Because of changes in staffing and approach, the prior work plan is no longer applicable. TRS will adopt a phased approach to development and deployment of the BeST application system. Because of this, the project work plan will provide a relatively detailed work breakdown structure for near term activities with less detail for later phases. As each phase is defined, the work plan will be refined to more accurately reflect expected project activity and associated resource requirements. Rational Unified Process will help provide a skeleton work plan in that it prescribes specific process related activities that are carried out.

Est. Completion Date: 6/2000 (initial plan)

TRS is dedicated to taking the measures necessary to address and strengthen any areas of weakness. We firmly believe that at this time TRS is best equipped to proceed with the project under internal management and control and that the ultimate outcome will be a positive one for all stakeholders.

Sincerely,



Charles L. Dunlap  
Executive Director

## Objective, Scope, and Methodology

The objective of the review was to determine whether the Teacher Retirement System has the necessary skills and management processes in place to complete the Benefit Services Transformation project.

The scope of the review was an evaluation of key management controls over the BeST project. Fieldwork was begun in March 2000, immediately before the System's decision to terminate the contract with its vendor and complete the project with in-house resources. Fieldwork was concluded in May 2000.

The methodology used on this review included an examination of documentation at the System. This documentation included internal audit reports, monthly status reports, correspondence between the System and its vendor, contractual agreement (and modifications) between the System and its vendor, minutes of project meetings, and System Board reports. Interviews were conducted with System executive management, internal audit, and project management. We also considered project and monitoring information obtained from the Quality Assurance Team.