

Annual Report

OVERVIEW OF MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

December 2018 to November 2019



Quality Assurance Team

Comptroller of Public Accounts

Department of Information Resources

Legislative Budget Board

State Auditor's Office (Advisory)

December 1, 2019



QUALITY ASSURANCE TEAM

- ◆ Comptroller of Public Accounts ◆ Department of Information Resources ◆
◆ Legislative Budget Board ◆ State Auditor's Office (Advisory) ◆

TO: Governor Greg Abbott
Lt. Governor Dan Patrick
Senator Kelly Hancock
Senator Joan Huffman
Senator Bryan Hughes
Senator Jane Nelson

Speaker Dennis Bonnen
Representative Dustin Burrows
Representative Drew Darby
Representative Oscar Longoria

FROM: Glenn Hegar, Texas Comptroller of Public Accounts
Amanda Crawford, Executive Director, Department of Information Resources
John McGeady, Assistant Director, Legislative Budget Board

DATE: December 1, 2019

SUBJECT: 2019 Quality Assurance Team Annual Report

The attached report is the Quality Assurance Team Annual Report on monitored major information resources projects at Texas state agencies. Projects are assessed to determine if they are operating on time and within budget and scope. The analysis is provided by the Quality Assurance Team (QAT) pursuant to the Texas Government Code, Section 2054.1183.

The QAT, which includes representatives of the Comptroller of Public Accounts, Department of Information Resources, Legislative Budget Board, and the State Auditor's Office (advisory member), is charged with overseeing and assisting with the development of major information resources projects.

An electronic version of this report is available at qat.dir.texas.gov. If you have any questions, please contact Robert Wood of the Comptroller of Public Accounts at (512) 463-3973, Tom Niland of the Department of Information Resources at (512) 463-8826, John McGeady of the Legislative Budget Board at (512) 463-1200, or Michael Clayton of the State Auditor's Office at (512) 936-9500.

Attachments

CONTENTS

OVERVIEW OF MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM 1

FACTS AND FINDINGS..... 1

DISCUSSION 2

 BACKGROUND 2

 PROJECT PERFORMANCE OBSERVATIONS..... 3

 OBSERVATIONS AND TRENDS..... 3

 OBSERVATION 1: DURATION AND BUDGET OF PROJECTS 3

 OBSERVATION 2: TIMEFRAME AND PROCUREMENT METHOD 3

 OBSERVATION 3: CANCELED PROJECT 4

 QAT-MONITORED PROJECTS' STATUS 5

 COMPARISON OF 2018 AND 2019 PROJECT PERFORMANCE..... 6

 PROJECT HIGHLIGHTS DURING THE 2018–2019 QAT REVIEWING PERIOD 7

 ADDITIONAL QAT OVERSIGHT INITIATIVES..... 7

 CONTRACT OVERSIGHT..... 7

 PROJECT OVERSIGHT: PUBLIC DASHBOARD 8

 BEST PRACTICES TO BE CONSIDERED BY AGENCIES..... 11

 CONCLUSION..... 13

APPENDIX A..... 14

CONTACT..... 26

OVERVIEW OF MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

The Quality Assurance Team (QAT) includes representatives from the Comptroller of Public Accounts (CPA), the Texas Department of Information Resources (DIR), the Legislative Budget Board (LBB), and the State Auditor's Office (SAO) (advisory member). QAT oversees the state's major technology project portfolio, which is a single view of all agency major information resources projects. The team monitored 73 major information resources projects during the December 2018 to November 2019 reporting period. Of these projects, 29 are expected to exceed their original planned duration by more than 10 percent. Twelve of these 29 also are expected to exceed their initial budgets by more than 10 percent. See **Appendix A** for additional information¹.

A major information resources project is statutorily defined in the Texas Government Code, Title 10, Chapter 2054. These projects typically include information technology projects that meet a certain dollar threshold and require a year or longer to reach operational status. Senate Bill 65, Eighty-sixth Legislature, 2019, increased the monetary threshold for major projects from \$1.0 million to \$5.0 million. Projects with budgets of less than \$5.0 million that were in progress before September 1, 2019, were reviewed by QAT and the respective agencies to determine if any further QAT monitoring was necessary. As a result, 19 of the 73 total projects no longer will be monitored. However, for reporting purposes, all projects that were subject to QAT purview for state fiscal year 2019 are included in this annual report.

From December 2018 to November 2019, QAT provided process improvement strategies to state entities that manage the projects in the portfolio. These strategies included agency consultations, trainings, and dissemination of best practices.

FACTS AND FINDINGS

- ◆ From December 2018 to November 2019, the state's major technology project portfolio included 73 projects with an estimated total cost of \$1.43 billion. Thirteen of these projects were approved and scheduled to begin on or after September 1, 2019.
- ◆ One project was canceled since the December 2018 annual report due to a loss of state funding.
- ◆ Among the 73 projects, 43 projects are currently within 10 percent of both original planned duration and planned costs.
- ◆ The number of projects in the portfolio has increased from 62, and their total estimated costs have increased from \$1.38 billion since the 2018 annual report.
- ◆ When establishing project milestones, some agencies are not allocating enough time to identify project requirements, complete procurement activities, submit contract reviews for QAT approval, and conduct user-acceptance testing.
- ◆ Projects that have a short development schedule of less than 28 months are meeting their initial cost and duration estimates at a higher rate relative to projects with longer durations.
- ◆ As of November 2019, 26 projects were reported to be complete or near completion. Thirteen of the 26 projects (50 percent) were within 10 percent of original budget and duration.

¹ Appendix A includes all projects and identifies the initial and current estimated costs and the initial and current estimated durations for these projects.

DISCUSSION

Staff from the CPA, DIR, LBB, and SAO serve in a joint capacity on the QAT. QAT reviews and monitors state agency major information resources projects; identifies potential major information resources projects from agencies' Biennial Operating Plans; monitors the status of major information resources projects; and provides feedback on agencies' framework deliverables. Agencies issuing contracts for major information resources projects with an expected value of greater than \$10.0 million must also obtain QAT review of the contract before execution.

BACKGROUND

QAT functions pursuant to the Texas Government Code, Chapter 2054, and the Eighty-sixth Legislature, General Appropriations Act, 2020–21 Biennium (House Bill 1), Article IX, Sections 9.01 and 9.02. QAT reviews and monitors information resources projects. As of September 2019, the team also reviews and provides recommendations on certain contracts and contract amendments related to those projects. Since its inception, the team has published annual reports that provide the status of these projects.

Each member agency of the team provides staff with expertise in system development, budgeting, and contracting.

DIR's Texas Project Delivery Framework is required for use during delivery of major information resources projects as defined in the Texas Government Code, Chapter 2054, Information Resources, and for certain major contracts. DIR's framework includes the following phases:

- initiation;
- planning;
- execution;
- monitoring and control; and
- closing.

LBB staff specify procedures for the submission, review, approval, and disapproval of Biennial Operating Plans and amendments, including procedures for review or reconsideration of the LBB's disapproval of a Biennial Operating Plan or its amendments.

CPA staff review contracts, contract amendments, and related solicitation documents. CPA staff also provide input on project framework deliverables.

SAO recuses itself from making recommendations and participating in additional oversight initiatives related to contracting contained in this report. This separation is necessary to ensure that SAO maintains its independence so that future audits of contracts and amendments overseen by QAT can be conducted in accordance with professional auditing standards.

Part of this work includes QAT requests for additional information from agencies to facilitate more comprehensive project analyses. For example, QAT may request an updated version of a project plan from an agency to better understand a project's revised scope. Additionally, QAT may require an agency to submit third-party reports, including independent verification and validation reports, when the project is reviewed. Such reports can serve as crucial sources of insight to evaluate information technology (IT) project risks. Finally, QAT intends to continue its practice of requesting SAO to perform project reviews. These reviews have provided valuable input to QAT from an independent perspective.

MAJOR INFORMATION RESOURCES PROJECTS

Pursuant to the Texas Government Code, Chapter 2054, a major information resources project is:

- any information resources technology project identified in a state agency's Biennial Operating Plan whose development costs exceed \$5.0 million and that:
 - requires one year or longer to reach operations status,
 - involves more than one state agency, or
 - substantially alters the work methods of state agency personnel or the delivery of services to clients; and
- any information resources technology project designated by the Legislature in the General Appropriations Act as a major information resources project.

Chapter 2054 does not apply to institutions of higher education that do not submit Biennial Operating Plans.

PROJECT PERFORMANCE OBSERVATIONS

From December 2018 to November 2019, the state's technology project portfolio included 73 projects totaling \$1.43 billion. Thirteen of these projects were approved and scheduled to begin after September 1, 2019. The remaining 60 projects are in various development stages or were completed this past year. The total number of projects has increased from 62 projects and \$1.38 billion since the 2018 *QAT Annual Report*.

Since the 2018 report, SAO performed project reviews involving five agencies on behalf of QAT. QAT selected the projects for review based on risks and completion. Results of these reviews were published in SAO's report, **A Report on Analysis of Quality Assurance Team Projects**, SAO Report No. 20-010, November 2019.

OBSERVATIONS AND TRENDS

QAT observations and trends are based on self-reported information as of November 2019. Information reported for projects that are ongoing may change as their implementation progresses.

Although QAT provides oversight for major information resources projects, agencies ultimately are responsible for the successful delivery of their projects.

The following trends and statistics apply to 53 projects that were 30 percent or more complete as of October 2019. Typically, projects that exceed planned durations also are more likely to exceed their budgets, whereas projects within schedule tend to remain closer to the initial budgets. (See **Figure 2**.)

Observation 1: Duration and Budget of Projects

Projects that have a shorter development schedule were more likely to meet both their current cost and duration as indicated by the following examples:

- 35 of 53 projects (66 percent) had an initial duration of 27 months or less; five of these 35 (14 percent) projects exceeded their initial cost and duration estimates by more than 10 percent; and
- 18 of 53 projects (34 percent) had an initial duration of 28 months or more; five of these 18 projects (28 percent) exceeded their initial cost and duration estimates by more than 10 percent.

Longer projects that have initial estimated costs of more than \$10.0 million were less likely to be implemented within budget and duration. Nine of the 53 projects (17 percent) have an initial duration of 28 months or more and are expected to cost more than \$10.0 million; five of these projects exceeded initial cost estimates by an average of 72 percent with a range from 31 percent to 154 percent.

Observation 2: Timeframe and Procurement Method

A sound acquisition plan should outline the procurement strategy for managing the acquisition in accordance with statutory and regulatory requirements, and in support of the mission needs of the program. The procurement strategy should be guided by a realistic procurement timeframe that considers the complexity and dynamism of the procurement.

Setting a realistic timeframe can be a challenge, especially given the unpredictability of contract negotiations; however, through relevant market research, key input from stakeholders and the vendor community, the project team may be well-informed to set reasonable timing expectations and avoid or minimize project schedule overrun in the future. Project schedule overrun is not uncommon for large projects. QAT has observed that agencies that have large procurements often are delayed by several months during the acquisition phase.

Pressured to meet rigid timeframes and minimize delays in executing contracts, agencies may attempt to scope all requirements and contingencies prior to contract award. However, strict adherence to preestablished requirements post-award may be difficult to achieve given inevitable changes in leadership, legislative and other policy constraints, or

emerging technologies.² As a result, QAT has observed more agencies exploring the use of agile methodology, 12 agency projects indicate using an agile methodology, which enables more flexibility in scoping a project. See the Best Practices to be Considered by Agencies section on page 11 for further discussion on agile procurement.

Agencies should prepare a request for proposal (RFP) consistent with state law and the *State of Texas Procurement and Contract Management Guide*. Typically, an RFP is recommended when factors other than price are to be considered or when objective criteria cannot be defined. Agency procurement staff should be consulted to help determine a reasonable timeline for the solicitation, and should consider the agency's evaluation process and executive sign-off procedures for major purchases. For contracts that are expected to exceed \$10.0 million in value, agencies are encouraged to notify QAT early in the process to prevent unnecessary delay in the final contract review. When evaluating vendors that bid on contracts, it is important to evaluate their past performance and current financial status. The final vendor selection should be made using the original approved selection criteria, including end-user feedback.

Data Center Services (DCS) agencies should engage the DCS team for assistance before posting a solicitation. The team will aid in developing appropriate solicitation language to offer a solution option that is hosted in a State Data Center; provide for better long-term network planning; and consult on DCS exemptions from the State Data Center if necessary.

Observation 3: Canceled Project

After the loss of state funding associated with various project delays and technical challenges, the Office of the Attorney General's (OAG) Texas Child Support Enforcement System 2.0 (T2) project was canceled. Following the defunding of the project, independent third-party experts reviewed the project artifacts at the OAG's request. Based on the experts' review, the OAG determined that significant engineering challenges remained in completing the project. In addition, the cost of maintaining the system as designed would be significant.

The work with the design, development, and implementation vendor began during calendar year 2010 with an initial \$70.0 million contract. The final contract totaled \$160.0 million before being terminated during calendar year 2019. The project was targeted to be completed in March 2019 at a total project budget of \$419.0 million.

Although this project will not be reinitiated, the OAG plans to modernize its legacy child support enforcement system using a strategy of employing newer and lower-cost technologies in smaller, more manageable projects to add functionality on an ongoing basis. The Quality Assurance Team will monitor the progress of this approach.

² 18F, U.S. Government Services Administration's Modular Procurement online guide, 2017. Retrieved from https://github.com/18F/Modular-Contracting-And-Agile-Development/blob/master/_strategies/modular-procurement.md

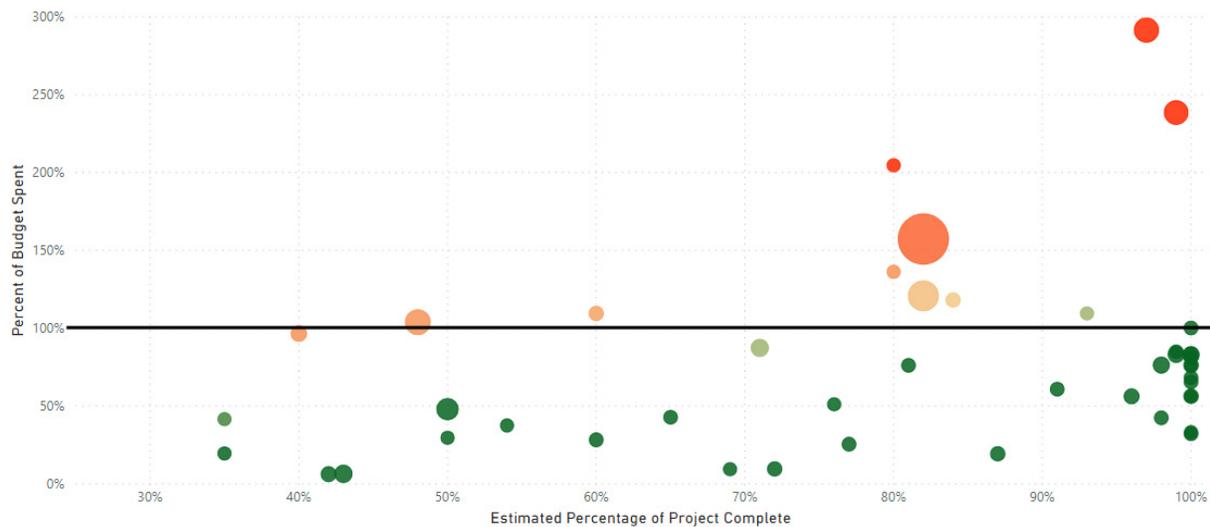
QAT-MONITORED PROJECTS' STATUS

The Texas Government Code, Section 2054.151, states that “[t]he legislature intends that state agency information resources and information resources technology projects will be successfully completed on time and within budget and that the projects will function and provide benefits in the manner the agency projected in its plans submitted to the department and in its appropriations requests submitted to the legislature.”

Figures 1 and 2 show the status of QAT-monitored projects that were 30 percent complete or more as of November 2018 and November 2019, respectively. Each circle on the two graphs represents a project. Projects that are less than 30 percent complete are not included in this analysis because these projects may be in the planning or procurement phases.

Figure 1 shows the 45 projects that were reported as 30 percent or more complete as of November 2018. Observations made during project oversight are included.

**FIGURE 1
QUALITY ASSURANCE TEAM-MONITORED PROJECTS, AS OF NOVEMBER 2018
PERCENTAGE OF PROJECT COMPLETE VS. PERCENTAGE OF BUDGET SPENT**



NOTES:

- (1) Each circle on the graph represents a project that was at least 30 percent complete (45 of 62 projects). It is assumed that a project within 10 percent of its budget or schedule is considered successful; results greater than 10 percent will change the dots' color. See Appendix A for further information on each project.
- (2) The size of each circle represents the current estimated project budget, and the largest circles represent projects with the largest budgets.

SOURCES: Agency self-reported monitoring reports.

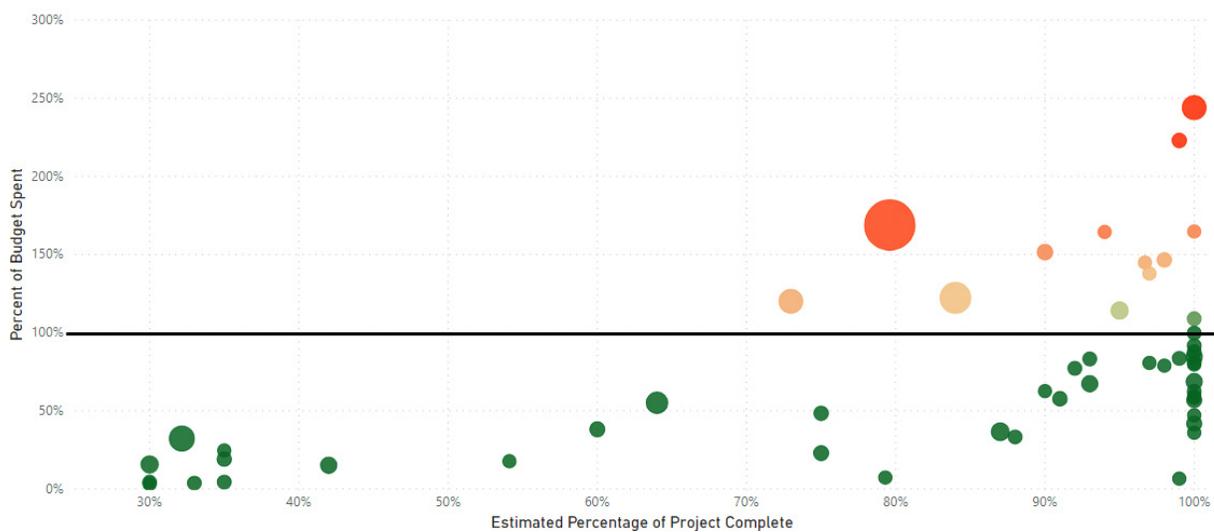
Figure 2 shows the 53 projects that were reported as 30 percent or more complete as of November 2019. Observations made during project oversight are included.

POST-IMPLEMENTATION REVIEW OF BUSINESS OUTCOMES

A Post-implementation Review of Business Outcomes (PIRBO) describes the expected benefits and outcomes compared to the realized benefits and outcomes of implementing a major information resources project. In that report, the agency also identifies the lessons it learned that can be used to improve agency-level or state-level processes.

The agency must submit a PIRBO to QAT within six months after a project has been completed.

FIGURE 2
QUALITY ASSURANCE TEAM-MONITORED PROJECTS, AS OF NOVEMBER 2019
PERCENTAGE OF PROJECT COMPLETE VS. PERCENTAGE OF BUDGET SPENT



NOTES:

- (1) Each circle on the graph represents a project that was at least 30 percent complete (53 of 73 projects). It is assumed that a project within 10 percent of its budget or schedule is considered successful; results greater than 10 percent will change the dots' color. See Appendix A for further information on each project.
- (2) The size of each circle represents the current estimated project budget, and the largest circles represent projects with the largest budgets.

SOURCES: Agency self-reported monitoring reports.

The position of each project shown in **Figures 1 and 2** is determined by comparing each project's current cost and duration to its initial cost and duration estimates. The initial cost and duration estimates were included in the agency's submission of its business case for project approval by QAT.

Beginning in January 2018, QAT expanded project measurements to include scope and quality as required by the Texas Government Code, Section 2054.159. DIR established these additional performance indicators in the Texas Administrative Code.

COMPARISON OF 2018 AND 2019 PROJECT PERFORMANCE

For projects reporting 30 percent or more completion as of November 2018, 43 percent were within their original estimated costs and durations, and 18 percent exceeded both cost and duration. For projects reporting 30 percent or more completion as of November 2019, 45 percent are within their original estimated costs and durations, and 25 percent exceeded both cost and duration. This consistency may be attributed to the agencies' following actions:

- providing reasonable timeframes related to procurement activities;
- allocating more time to developing initial costs, benefits, quality, and scope;
- managing projects in correlation to the agency project management office;
- waiting for further releases before incorporating new requirements on existing projects;
- thoroughly identifying system requirements; and
- dividing large-scale, system replacement projects into multiple, smaller-scale projects.

Projects with durations of three years or less are becoming common, as information technology often becomes obsolete after that period. Despite this trend for shorter durations, some large-scale systems could have a development duration of five years or more. QAT has observed that these large-scale projects are the most likely to be over budget or behind schedule.

PROJECT HIGHLIGHTS DURING THE 2018–2019 QAT REVIEWING PERIOD

As previously mentioned, projects lasting less than 28 months were more likely to be successful (i.e., meet their cost and duration estimates). QAT monitored multiple successful projects during fiscal year 2019, including the following projects:

- The Texas Workforce Commission (TWC) released the WorkInTexas Replacement (WITR) project on August 18, 2019. The WITR project fulfills the WIT Task Force recommendations to replace the legacy WIT site with a commercially available solution. The refreshed WorkInTexas.com website is intended to improve job matching to better meet the hiring and job searching needs of employers and job seekers.

TWC began the WorkInTexas Replacement project during fiscal year 2018. The initial estimated project cost was \$18.4 million. The initial planned project start and finish dates were September 1, 2017, and August 31, 2019, respectively. Within the first 12 months of the project, TWC reevaluated the Project Plan to concentrate resources and scheduling on the core scope of the WITR. The agency removed funds and scope that were determined to be optional for project success. This action decreased the project cost to \$9.9 million. The WITR project is the first phase of improving workforce systems. The agency implemented the project under budget and within planned duration.

- The Office of the Attorney General began its Crime Victims' Compensation (CVC) Web Portal project during fiscal year 2017 to continue the modernization of the CVC claims management system. The Crime Victims' Compensation program is administered by the OAG and reimburses victims and claimants for certain crime-related expenses not paid by other sources, such as funeral and burial, mental health care, loss of wages, loss of support, childcare, and medical care. The New Crime Victims' Compensation portal is intended to provide claimants with better, faster access that streamlines the application process while providing current information regarding application status.

The initial estimated project cost was \$3.72 million, and the project was estimated to start January 3, 2017, and finish October 5, 2018. The CVC Web Portal project was developed with agile methodology and was user-tested during development and at the end of each development cycle, referred to as a sprint. As monitored by the project team, testing ensured that the project remained aligned with the project goals, and project quality improved as the project team gained more experience with agile methodology. The project was completed as scheduled on October 5, 2018, and under budget at \$3.7 million. The portal presents a survey upon application submission, and for the period of September 1 to October 31, 2018, results indicated that 70 percent of respondents rated the application submission process at 5 out of 5 stars.

ADDITIONAL QAT OVERSIGHT INITIATIVES

Contract Oversight

Pursuant to the Eighty-sixth Legislature, General Appropriations Act, 2020–21 Biennium, Article IX, Section 9.01, and the Texas Government Code, Section 2054.160, any contract for the development of major information resources projects with an expected value of greater than \$10.0 million must be reviewed by QAT before it can be executed by an agency.

QAT will review the contract to ensure that it follows the best practices established in the *State of Texas Procurement and Contract Management Guide* and all applicable rules and regulations. QAT may provide recommendations regarding reviewed contracts and reserves the right to waive the contract review requirement within certain circumstances. The Comptroller of Public Accounts (CPA), Statewide Procurement Division (SPD), published the *State of Texas Procurement and Contract Management Guide* (TPCMG), Version 1.2, in September 2019. The guide combined the objectives of the previously published *Texas Procurement Manual* and the *Texas Contract Management Guide* and updated best practices and laws in state contracting. TPCMG provides state agencies with guidance regarding the full procurement cycle, and QAT conducts contract reviews based on adherence to the practices within the guide.

Agencies must submit a justification for amendments that increase a contract's value by 10 percent or more to the QAT. Agencies must notify QAT when they advertise a request for proposal, request for bid, or other similar process common to the competitive bidding processes for a major information resources project. Additionally, agencies must notify QAT within 10 business days of awarding a contract for a major information resources project valued at greater than or equal to \$10.0 million for QAT review.

QAT also has fostered increased collaboration among oversight agencies, enabling DIR, CPA, LBB, and SAO to partner on training initiatives through CPA's mandatory procurement training and continuing education programs. QAT also has provided improved insight into statewide contracting issues, informing the focus of SPD's continuing education offerings. The Procurement Oversight and Delegation team within SPD, which administers the Contract Advisory Team (CAT), has collaborated with QAT to provide additional oversight of state agencies' adherence to contracting requirements. The increased communication and partnership has enabled better overall oversight.

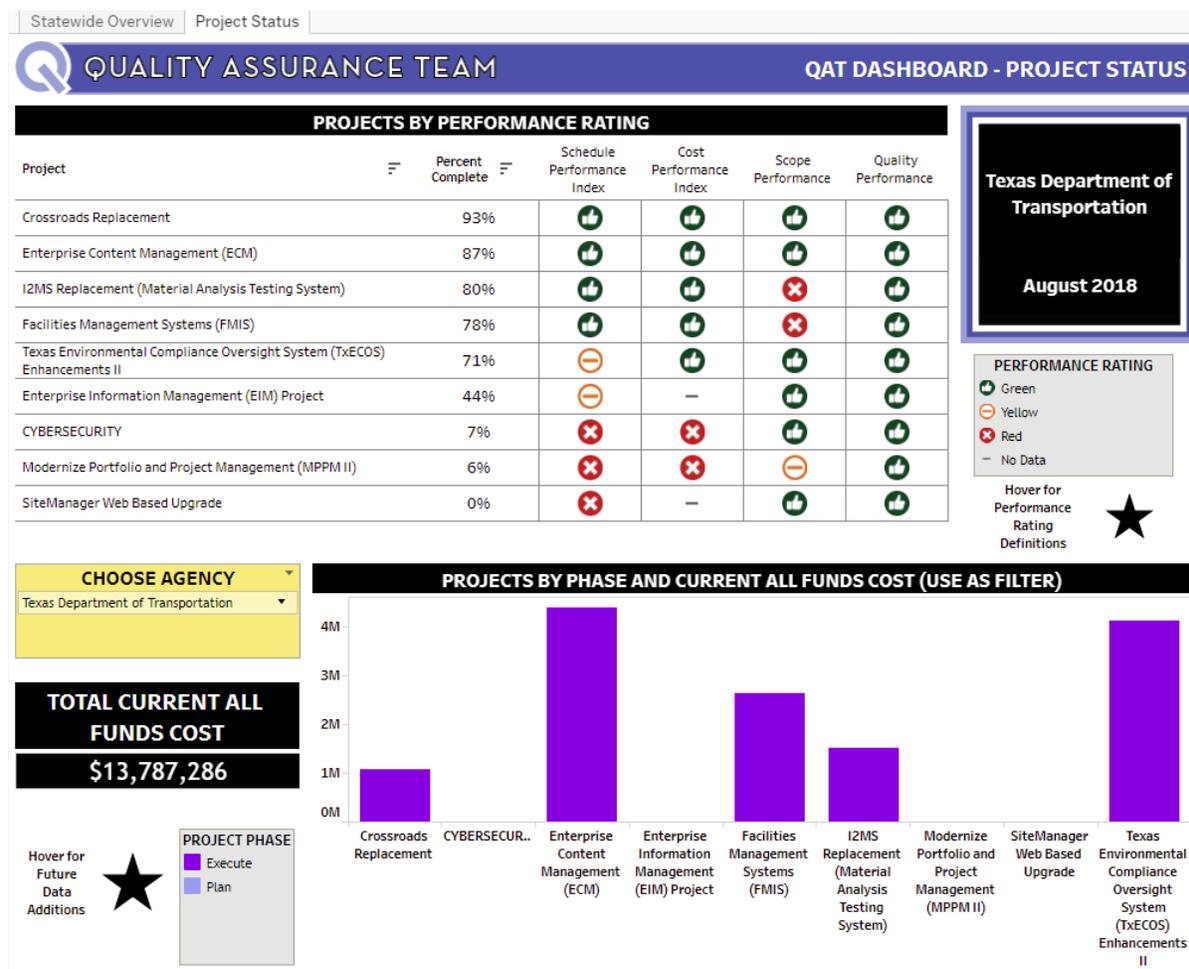
QAT also collaborates with agencies to provide feedback regarding contracts that are not subject to formal approval. For example, QAT is continuing to collaborate with DIR on its Next Generation DCS procurement. Because this project is not for system development, QAT will not review and approve the contract formally. As required by statute, the solicitation will be reviewed by CAT, and QAT will coordinate with CAT to remain informed regarding the planned DCS procurements. Considering the complexity and the number of agencies affected by DCS services, QAT also may request that DIR periodically provides QAT with updates or documents related to the project.

Project Oversight: Public Dashboard

Pursuant to the Texas Government Code, Section 2054.159, DIR, in consultation with QAT, developed performance indicators in the areas of schedule, cost, scope, and quality. QAT's public website dashboard, beginning in October 2018, includes this information to provide state leadership, state agencies, and the public with the ability to view details of major information resources projects online and to track their progress. All major information resources projects currently report all performance measures.

The QAT dashboard includes interactive graphics developed by LBB staff. The dashboard is updated quarterly and shows a summary of projects monitored by QAT each month, along with the detailed performance metrics by project for the month. **Figure 4** shows the QAT dashboard.

FIGURE 4
QUALITY ASSURANCE TEAM DASHBOARD, NOVEMBER 2018



SOURCE: <https://public.tableau.com/profile/state.of.texas.lbb#!/vizhome/QualityAssuranceTeamQAT-Dashboard/StatewideOverview>

The performance indicators for the areas of budget, schedule, scope, and quality reported from state agencies for each project are calculated in the following manner:

- schedule performance index (SPI) – SPI is a standard project management measure of how close the project is to being completed compared to the schedule. As a ratio, it is calculated by dividing the budgeted cost of work performed, or earned value, by the planned value;

PROJECT LEVEL SCHEDULE PERFORMANCE INDEX AND COST PERFORMANCE INDEX RATING	CORRESPONDING COLOR
0.90 or greater	Green
From 0.80 to less than 0.90	Yellow
Less than 0.80	Red

- cost performance index (CPI) – CPI is a standard project management measure of the financial effectiveness and efficiency of a project. It represents the amount of completed work for every unit of cost spent. As a ratio,

it is calculated by dividing the budgeted cost of work performed, or earned value, by the actual cost of the work performed;

- scope performance – a measure derived from the reviewing the budget impact of project scope changes during the preceding 12 months;

SCOPE PERFORMANCE INDEX	
SCOPE CHANGES IN THE PRECEDING 12 MONTHS THAT IMPACT THE PROJECT BUDGET BY AN INCREASE OF:	
	CORRESPONDING COLOR
10% or less	Green
Greater than 10% and less than or equal to 20%	Yellow
Greater than 20%	Red

and

- quality performance – a measure derived from a series of quality measures specific to each project and each project phase. Quality is measured throughout the project’s life cycle during project deliverable reviews, during testing, and after the system has implemented. The quality of vendor performance also will be measured. Quality performance is measured against agency-developed Quality Management Plans or Quality Registers.

QUALITY PERFORMANCE INDEX	CORRESPONDING COLOR
Project is achieving its stated quality objectives.	Green
Project is missing some of its quality objectives and requires agency management notification.	Yellow
Project is not achieving its quality objectives and requires agency management intervention.	Red

DIR has implemented the Statewide Project Automated Reporting (SPAR) system to track and review projects. Agencies that are implementing major information resources projects enter project data directly into the SPAR system for review by QAT. Additionally, the SPAR system will track whether an agency has considered cloud computing service options pursuant to Senate Bill 819, Eighty-sixth Legislature, 2019, and whether the agency has considered QAT best practices pursuant to the Texas Government Code, Section 2054.304. To ensure that agencies understand all requirements associated with these projects, the use of the Project Delivery Framework, the use of the SPAR system, and the public dashboard, DIR provides training to agency staff through agency visits, webinars, and DIR-sponsored forums. Agencies are encouraged to request trainings directly with DIR at projectdelivery@dir.texas.gov.

As part of continuous process improvement efforts, QAT and DIR are collaborating on several developments to help agencies improve the delivery of projects. **Figure 5** shows these improvements efforts.

FIGURE 5
QUALITY ASSURANCE TEAM AND DEPARTMENT OF INFORMATION RESOURCES IMPROVEMENTS
AS OF NOVEMBER 2019

- The Quality Assurance Team (QAT) and the Department of Information Resources (DIR) will emphasize bringing best practices in modern information technology project management outreach and training with agencies using various methods: webinars, individual training, classroom settings, and electronic delivery of content.
- QAT will coordinate information sharing with the Legislative Budget Board's Contracts Oversight and Technology Team.
- The Texas Administrative Code, Chapter 216, which pertains to project management practices, was revised during fiscal year 2018 to help agency practitioners manage legislative changes regarding projects.
- QAT may require a project demonstration after project deployment.
- DIR will coordinate information sharing among state agencies to disseminate best practices that are practiced by agencies.

SOURCE: Quality Assurance Team.

BEST PRACTICES TO BE CONSIDERED BY AGENCIES

The Texas Government Code, Section 2054.304, requires state agencies to consider incorporating the applicable best practices into their major information resources project plans. Based on what entities across the public sector and at the federal level have demonstrated, QAT identified the following best practices that contribute to the success of state agency information systems:

- divide large projects into smaller, more manageable projects with schedules of less than 28 months and budgets of less than \$10.0 million. For large legacy-replacement projects, consider strategies to migrate the legacy system incrementally by gradually replacing specific pieces of functionality with new applications and services;
- allocate adequate time to identify project requirements, prepare for procurement activities with vendors, and perform user-acceptance testing;
- engage the DCS team before posting a solicitation to include appropriate solicitation language asking vendors to offer a solution option that is hosted in a State Data Center; provide for better long-term network planning; and consult on DCS exemptions from the State Data Center if necessary;
- consider the use of open source software for less reliance on proprietary software; open source software does not charge users a licensing fee for modifying or redistributing its source code; publicly available source code enables continuous and broad peer review, promoting increased transparency and greater accountability³;
- couple agile development with user-centered design to enable the development team continuously to iterate toward solving and meeting the needs of end users⁴; a culture shift is required across the organization to successfully implement agile development.
- build IT systems using loosely coupled parts, connected by open and available Application Programming Interface (API) to enable flexible, sustainable systems that meet user needs and cost less over time⁵

³ 18F, U.S. Government Services Administration's Open Source Policy. Retrieved from <https://18f.gsa.gov/open-source-policy/>.

⁴ 18F, U.S. Government Services Administration's *De-risking Custom Technology Projects: A Handbook for State Grantee Budgeting and Oversight*. Retrieved from <https://github.com/18F/technology-budgeting/blob/master/handbook.md#basic-principles-of-modern-software-design>

⁵ 18F, U.S. Government Services Administration's *De-risking Custom Technology Projects: A Handbook for State Grantee Budgeting and Oversight*. Retrieved from <https://github.com/18F/technology-budgeting/blob/master/handbook.md#basic-principles-of-modern-software-design>

- include security planning in the initiation phase of the project and include code review, vulnerability testing and scanning throughout the project's life cycle; conduct a penetration test of the application and remediate findings before moving to production; develop methods to quantify major information resources project benefits;
- engage an independent verification and validation company for projects valued at greater than \$10.0 million to help oversee complex projects; agency budgets should accommodate the estimated cost;
- retain original estimates regarding scope and defer new requirements and functionality to a new project or phase at a later time;
- develop a phase gate process that requires acceptance of the system test deliverable, that is, remediation of all severity 1 and severity 2 system test defects and correction of any performance-testing deficiencies, before the project proceeds to the user-acceptance testing phase;
- include network performance and capacity planning as part of project scope, particularly when new types of data (e.g., electronic images of customer files) are sent to field offices as a result of the project;
- consider agile procurement for procurements that have a moderate level of uncertainty and complexity; Agile procurement is a procurement method that embraces change and enables the procurement to be divided into a series of manageable iterative stages, from developing the solicitation in a series of sprints to having a series of vendor demonstrations and discussions throughout the procurement phase;⁶ and
- divide large, monolithic contracts into shorter-term, lower-dollar-amount contracts through modular contracting. With the use of modular contracting an agency decreases project risk and incentivizes contractor performance while meeting the agency's need for timely access to rapidly changing technology. Executing a six to twelve-month contract is likely to carry less risk than a six-year contract that could result in substandard product delivery and be difficult to terminate even at midpoint in the project.⁷ By means of modular contracting, the resulting contract language should enable modular product delivery that includes user-centered modules that can be remediated without jeopardizing the success of the entire project.⁸

⁶ National Association of State Procurement Officials (NASPO), Modular Procurement: A Primer. Retrieved from <https://naspo.org>; Texas Department of Information Resources (DIR), State Strategic Plan. Retrieved from dir.texas.gov/ssp, 2019.

⁷ Id., NASPO; 18F, U.S. Government Services Administration's Modular Procurement online guide, 2017. Retrieved from https://github.com/18F/Modular-Contracting-And-Agile-Development/blob/master/_strategies/modular-procurement.md

⁸ Id., NASPO; 18F, U.S. Government Services Administration's De-risking Custom Technology Projects: A Handbook for State Grantee Budgeting and Oversight. Retrieved from <https://github.com/18F/technology-budgeting/blob/master/handbook.md#basic-principles-of-modern-software-design>

QAT identified strategies that agencies should use to ensure an appropriate methodology for project selection, control, and evaluation based on alignment with business goals and objectives. **Figure 6** shows these strategies as of November 2019.

FIGURE 6
STRATEGIES FOR AN APPROPRIATE PROJECT METHODOLOGY

- Provide adequate time for project procurement activities.
- Consider the allowable funding for a biennium when planning a project and contract.
- Include employee benefit costs as part of full-time-equivalent position costs when reporting project costs in monitoring reports.
- Consider requirements and standards in the Texas Administrative Code, Chapter 213, Electronic and Information Resources Accessibility, during software analysis, development, and testing.
- Submit project benefits realization documents on schedule. These documents often are submitted late or are submitted with missing or inadequate information.
- Conduct a thorough analysis of resource availability before submitting a project to agency management for approval; failure to adhere to this practice can lead to unrealistic expectations.
- Submit quarterly monitoring reports within 30 days after the quarter's end. Monitoring reports often are submitted late or with inaccurate or inconsistent information.
- Submit a contract amendment change order when change orders or amendments increase the total contract amount by 10 percent or more.

SOURCE: Quality Assurance Team.

CONCLUSION

Agencies retain ultimate responsibility for project management and success. QAT seeks to increase transparency and provide guidance to agencies executing major information resources projects. To this end, QAT provides recommendations to enhance an agency's ability to satisfy commitments made to state leadership. Although multiple factors contribute to a successful project, one key factor that increases the risk of failure for major state technology projects is the project budget. The 10 smallest projects in the 2019 QAT portfolio, with initial budgets of less than \$3.0 million, are averaging \$284,000 greater than initial estimated budgets. However, the 10 largest projects in the portfolio, with budgets of more than \$10.0 million, are averaging \$37.0 million greater than initial estimated budgets. Whenever possible, projects should be scoped to less than \$10.0 million for the best chance of success.

Other factors noted for project success are those that provide adequate time for procurement activities, align scope with approved budgets, and defer new requirements until a later phase or a new project can be initiated. QAT will continue to collaborate with agencies and state leadership to execute effective project oversight projects.

APPENDIX A

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

ORDERED ALPHABETICALLY BY AGENCY

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

- Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.
- Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.
- Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Commission on State Emergency Communications	State-level Digital 9-1-1 Network	\$14.7	\$14.1	\$8.7	90%	09/15 to 08/18	09/15 to 08/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Comptroller of Public Accounts	Centralized Accounting Payroll and Personnel System (CAPPS) Financials – Agency Deployment FY 18 Project	\$15.7	\$15.7	\$13.3	100%	09/17 to 10/18	09/17 to 10/18	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Comptroller of Public Accounts	Centralized Accounting Payroll and Personnel System (CAPPS) Financials – Agency Deployment FY19	\$15.4	\$15.4	\$10.4	93%	09/18 to 10/19	09/18 to 10/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Comptroller of Public Accounts	Centralized Accounting Payroll and Personnel System (CAPPS) HR Payroll – Agency Deployment FY19	\$17.5	\$17.5	\$12.0	100%	09/18 to 09/19	09/18 to 09/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Comptroller of Public Accounts	Identity and Access Management (IAM) Phase I		\$1.5	\$0.04	30%	06/18 to 05/19	06/18 to 05/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

ORDERED ALPHABETICALLY BY AGENCY

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Comptroller of Public Accounts	● Property Tax System Replacement	\$5.6	\$5.6	\$4.5	100%	12/17 to 03/19	06/18 to 03/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Comptroller of Public Accounts	● Web Application Modernization and Optimization	\$5.5	\$17.4	\$2.6	42%	11/17 to 01/20	11/17 to 01/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of Family and Protective Services	● Child Protective Services Transformation	\$23.1	\$2.7	\$1.7	79%	10/15 to 02/18	10/15 to 08/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of Family and Protective Services	● Information Management Protecting Adults and Children in Texas (IMPACT) System Modernization	\$44.6	\$69.8	\$53.5	73%	09/13 to 02/18	09/13 to 08/22	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of Family and Protective Services	● Preventing Sex Trafficking and Strengthening Families Act	\$6.2	\$0.7	\$0.4	99%	09/15 to 02/18	09/15 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM**ORDERED ALPHABETICALLY BY AGENCY**

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Department of Motor Vehicles	● Registration and Titling System (RTS) Refactoring Project	\$28.2	\$71.6	\$68.9	100%	05/12 to 12/18	05/12 to 12/18	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of Motor Vehicles	● WebDealer eTitles Project	\$14.0	\$8.9	\$7.9	100%	09/12 to 06/15	09/12 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of Motor Vehicles	● webLIEN Project	\$3.3	\$3.3	\$0.1	30%	09/17 to 08/19	09/17 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of Public Safety	● Advanced Analytics Project	\$2.9	\$8.0	\$6.4	99%	03/17 to 02/19	03/17 to 02/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of Public Safety	● Enterprise Case Management Wave 2	\$3.3	\$3.2	\$2.1	99 %	03/17 to 09/19	03/17 to 09/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

ORDERED ALPHABETICALLY BY AGENCY

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Department of State Health Services	Child and Adult Blood Lead Surveillance System Efficiency	\$2.7	\$2.7	\$0.4	15%	01/19 to 08/20	01/19 to 08/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of State Health Services	Emergency Medical Services and Trauma Registry Project	\$1.8	\$1.8	\$1.1	90%	10/17 to 09/19	10/17 to 09/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of State Health Services	HIV2000, Real-time Education and Counseling Network, AIDS Regional Information Evaluation System (HRAR) Implementation Project	\$10.7	\$14.6	\$0.4	18%	09/17 to 02/20	06/18 to 08/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of State Health Services	Texas Electronic Vital Events Registrar Implementation Project	\$16.5	\$21.8	\$18.9	95%	09/15 to 07/18	09/15 to 10/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

ORDERED ALPHABETICALLY BY AGENCY

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Department of State Health Services	Tuberculosis, HIV and STD Integrated Systems (THISIS) Enhancements Project	\$3.7	\$2.8	\$0.0	0%	01/18 to 09/19	08/19 to 08/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Department of State Health Services	Tuberculosis, HIV and STD Integrated Systems (THISIS) Improvement Implementation	\$5.0	\$8.6	\$7.4	98%	02/14 to 06/16	02/14 to 11/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
General Land Office	Royalty Reporting and Control 2.0 Project (1)	\$2.5	\$2.0	\$0.4	54%	11/17 to 08/19	08/18 to 08/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	Child Care Licensing (CCL) Online Fees and Enforcement Team Conference (ETC)	\$0.8	\$1.6	\$1.3	94%	06/16 to 08/17	12/17 to 02/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	Child Care Licensing Automated Support System (CLASS) Child Care Development Project	\$5.3	\$5.3	\$4.8	100%	06/16 to 08/17	09/16 to 01/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM**ORDERED ALPHABETICALLY BY AGENCY**

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Health and Human Services Commission	● Clinical Management for Behavioral Health Services (CMBHS) Complete Roadmap Phase II Project	\$1.9	\$1.9	\$1.5	98%	09/17 to 08/19	09/17 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Electronic Visit Verification Restructuring and Expansion Project	\$7.8	\$7.8	\$4.5	91%	11/18 to 09/19	11/18 to 09/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Enterprise Data Governance	\$50.7	\$50.7	\$27.9	64%	9/17 to 08/19	09/17 to 03/22	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Federal Bureau of Investigation (FBI) National Rap Back (Background) project	\$2.0	\$2.0	\$1.2	100%	06/16 to 08/17	11/16 to 01/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● HCS/TxHmL Program Migration Phase I	\$10.7	\$11.2	\$4.1	60%	08/18 to 12/19	08/18 to 03/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

ORDERED ALPHABETICALLY BY AGENCY

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Health and Human Services Commission	● Health, Developmental and Independence Services (HDIS) Shared Platform	\$5.7	\$5.7	\$1.1		35%	09/18 to 08/21	10/18 to 10/21
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Home and Community-based Services – Adult Mental Health (HCBS-AMH) Automation	\$1.6	\$1.5	\$0.4		35%	09/18 to 02/20	01/19 to 08/20
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Protecting People in Regulated Facilities (PPRF) Regulatory Services Systems Modernization (RSSM) Phase III	\$4.3	\$3.5	\$3.7		100%	08/17 to 10/18	08/17 to 11/18
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Medicaid Fraud Waste and Abuse System (MFADS) – Replatforming	\$5	\$5	\$0.2		33%	09/18 to 08/19	09/18 to 08/19
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	Office of Civil Rights Corrective Action Plan		\$23.4	\$0.0		20%	09/18 to 09/21	09/18 to 09/21
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM**ORDERED ALPHABETICALLY BY AGENCY**

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Health and Human Services Commission	● Performance Management and Analytics System (PMAS)	\$8.8	\$8.8	\$2.0	75%	09/18 to 08/19	09/18 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Provider Management and Enrollment System (PMES)	\$20.5	\$22.0	\$3.2	30%	12/18 to 07/20	12/18 to 08/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Protecting People in Regulated Facilities (PPRF) Regulatory Services Systems Modernization (RSSM) Phase IV	\$4.7	\$5.0	\$0.5	19%	09/18 to 08/21	09/18 to 12/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● SCOR CAPPS Financials 9.2	\$4.5	\$4.5	\$3.7	93%	02/18 to 10/19	02/18 to 10/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Health and Human Services Commission	● Substance Abuse Contract Management and Claims Processing – Source Replacement Project	\$2.1	\$2.0	\$1.7	97%	08/17 to 08/19	08/17 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM**ORDERED ALPHABETICALLY BY AGENCY**

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Office of Attorney General	● Crime Victims' Compensation (CVC) Web Portal Project	\$3.7	\$3.7	\$3.7	100%	06/16 to 10/18	01/17 to 10/18	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Office of Attorney General	● Texas Child Support Enforcement System (TXCSES) Initiative (2)	\$223.6	\$419.6	\$351.7	82%	09/08 to 12/17	09/08 to 03/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Railroad Commission	● Inspection/ Enforcement Tracking and Reporting System Project	\$6.0	\$2.8	\$2.8	100%	09/17 to 08/19	09/17 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
State Office of Administrative Hearings	● Administrative Case Tracking System (ACTS)	\$4.0	\$4.0	\$0.2	35%	09/18 to 02/22	09/18 to 02/22	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Teacher Retirement System	● TRS Enterprise Application Modernization	\$105.7	\$138.0	\$129.0	84%	09/11 to 03/17	09/11 to 04/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM

ORDERED ALPHABETICALLY BY AGENCY

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Texas Department of Insurance	● Document Management System	\$4.0	\$2.4	\$1.4	100%	12/15 to 08/18	12/15 to 10/18	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	● Crossroads Replacement Project	\$1.0	\$1.4	\$1.4	97%	01/17 to 04/18	01/17 to 09/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	● Cybersecurity Initiative	\$10.0	\$5.9	\$4.8	75%	05/18 to 08/19	05/18 to 03/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	● Enterprise Content Management	\$13.0	\$4.6	\$4.3	88%	04/16 to 04/17	01/17 to 10/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	● Enterprise Information Management Project	\$27.7	\$27.7	\$10.1	87%	09/17 to 08/19	09/17 to 03/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM**ORDERED ALPHABETICALLY BY AGENCY**

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Texas Department of Transportation	● Facilities Management System	\$1.4	\$2.7	\$2.4	100%	11/16 to 10/17	11/16 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	● Materials Acceptance Testing (MATS) Project	\$1.0	\$1.5	\$1.4	97%	06/16 to 03/17	06/16 to 07/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	Modernize Project and Portfolio Management (MPPM) II Phase 1a, 1b, and 2 (6)	\$125.4	\$218.5	\$70.5	29%	08/16 to 08/19	08/16 to 08/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	SiteManager Web-based Upgrade	\$2.9	\$2.8	\$0.0	20%	05/18 to 11/19	05/18 to 06/21	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Department of Transportation	● Texas Environmental Compliance Oversight System (TxECOS) Enhancement II	\$3.8	\$4.1	\$4.1	100%	02/15 to 08/17	02/15 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM**ORDERED ALPHABETICALLY BY AGENCY**

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Texas Department of Transportation	● TxTag Customer Service Systems and Operations Project	\$80.1	\$80.1	\$25.8	32%	09/17 to 09/20	09/17 to 09/20	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Education Agency	● Cybersecurity Project	\$3.9	\$3.1	\$3.1	92%	12/17 to 08/19	02/18 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Workforce Commission	● Enterprise Contracting System Phase II	\$1.7	\$1.7	\$1.0	100%	09/17 to 08/18	09/17 to 12/18	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Workforce Commission	● Enterprise Data Warehouse (EDW) Project	\$4.6	\$4.6	\$2.9	100%	12/17 to 11/19	12/17 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							
Texas Workforce Commission	● Short Time Compensation (Shared Work) Portal Project	\$3.0	\$2.8	\$2.2	100%	12/18 to 02/20	04/18 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

MAJOR INFORMATION RESOURCES PROJECTS REPORTED TO THE QUALITY ASSURANCE TEAM**ORDERED ALPHABETICALLY BY AGENCY**

(Data is self-reported by the agencies. Original budgets do not include operational costs after implementation.) Expenditures to date are actual expenditures and do not include agency obligation costs. Individual performance metrics color coding is defined on pages 9 and 10 of the report.

Overall project classifications include colored circles identified for projects that are reported as 30 percent or more complete as of November 2019. No overall project classification is included for projects less than 30 percent complete.

● Indicates the project currently exceeds the original estimated cost AND original estimated duration by more than 10 percent.

● Indicates the project currently exceeds the original estimated cost OR original estimated duration by more than 10 percent.

● Indicates the project currently is within 10 percent of the original estimated cost AND original estimated duration.

AGENCY	PROJECT	(IN MILLIONS)				PERCENTAGE COMPLETE	ORIGINAL ESTIMATED DATES	CURRENT ESTIMATED DATES
		ORIGINAL BUDGET	CURRENT BUDGET	EXPENDITURES TO DATE				
Texas Workforce Commission	● WorkInTexas (WIT) Project	\$18.4	\$10.0	\$7.7	100%	09/17 to 08/19	09/17 to 08/19	
	Budget Performance – ●							
	Schedule Performance – ●							
	Scope Performance – ●							
	Quality Performance – ●							

NOTES:

(1) The General Land Office delayed the start date by one year to August 30, 2018, due to the Governor's statewide emergency declaration for Hurricane Harvey.

(2) The Office of the Attorney General canceled the project due to loss of state funding.

SOURCE: Quality Assurance Team information from agency monitoring reports. Original costs and schedules are derived from agency business case submissions at the time of project approval.

CONTACT

An electronic version of this report is available at qat.dir.texas.gov. If you have any questions, please contact Robert Wood of the Comptroller of Public Accounts at (512) 463-3973, Tom Niland of the Department of Information Resources at (512) 475-4700, John McGeady of the Legislative Budget Board at (512) 463-1200, or Michael Clayton of the State Auditor's Office at (512) 936-9500.