JOINT BUDGET COMMITTEE

STATE · OF · COLORADO

NIL SINE NUMINE

1876

STAFF FIGURE SETTING
FY 2018-19

CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY PROJECTS

PREPARED BY:
KEVIN NEIMOND, JBC STAFF
MARCH 15, 2018

CONTENTS

HOW TO USE THIS DOCUMENT

This document begins with an overview of the process by which capital construction information technology projects are reviewed by the Joint Technology Committee and submitted to the Joint Budget Committee for consideration. The next section provides a summary of Joint Budget Committee staff's recommendations compared to the executive branch's requests. This section includes a brief description of each project. The final section describes the major differences between staff's recommendations and the executive branch's requests.

OVERVIEW

Pursuant to H.B. 14-1395 (Information Technology Budget Requests), the Joint Technology Committee is tasked with producing a written report setting forth recommendations, prioritization, findings, and other comments with respect to each information technology budget request submitted for consideration by the executive branch for inclusion in the capital construction budget section of the Long Bill. The report must be submitted to the Joint Budget Committee by February 15th of each year. The Joint Budget Committee is required to consider the prioritized list of information technology budget requests made by the Joint Technology Committee. For FY 2018-19, the prioritized list is as follows:

FY 2018-19 JOINT TECHNOLOGY COMMITTEE RECOMMENDATIONS		
JTC PRIORITY	AGENCY	PROJECT TITLE
1	Human Services	IT Systems Interoperability
2*	Office of Information Technology	Human Resource Information System
3	Office of Information Technology	Strategic IT Infrastructure Needs
4	Education	Information Management System Updates
5**	Public Health and Environment	Electronic Birth Registration System Replacement
6	Office of the Governor	Health IT Roadmap Initiatives
CF***	Natural Resources	Law Enforcement Records Management System
CF***	Labor and Employment	Unemployment Insurance Mainframe Migration and Modernization
IF ADDITIONAL FUNDING IS AVAILABLE:		
7	Otero Junior College	Technology and Communication Upgrades
8	Pueblo Community College	Security Intrusion Detection and Internal Door Access
9	Trinidad State Junior College	Technology Infrastructure
10	Lamar Community College	Technology Infrastructure
11	Community College of Denver	Storage and Virtualization
12	Pikes Peak Community College	Campus Emergency Notification and Power

*The Joint Technology Committee supports the Joint Budget Committee action to require the Office of the State Auditor to evaluate the procurement process for this project.
**The Joint Technology Committee recommends that the Department evaluate the need for increased fees upon completion of the project or after three fiscal years, whichever is sooner.
***The Joint Technology Committee recommends funding this project with cash funds.

If the Joint Budget Committee alters the determinations of priority established by the Joint Technology Committee, it is required to notify the Joint Technology Committee of the changes and allow for a joint meeting of the two committees to discuss the differences. One of staff's recommendations for FY 2018-19 (Unemployment Insurance Mainframe Migration and Modernization) differs from the recommendation from the Joint Technology Committee, thus the Joint Budget Committee would have to allow for a joint meeting with the Joint Technology Committee if it adopts staff's recommendation.

RECOMMENDED LEGISLATION

During the supplemental adjustment process for FY 2017-18, the Joint Budget Committee expressed interest in sponsoring legislation to add a component to the independent evaluation of the state's information technology resources currently being completed by the Office of the State Auditor, as authorized and funded pursuant to H.B. 17-1361 (Evaluate State Information Technology Resources). This component is an evaluation of the procurement process associated with the Human Resource Information System (HRIS) project, now known as HRWorks. Note, in its recommendations to the Joint Budget Committee for FY 2018-19 project funding, the Joint Technology Committee expresses that it is supportive of requiring the Office of the State Auditor to evaluate the procurement process for the HRWorks project.

The goal of this additional audit is to conduct an objective autopsy of the HRWorks procurement to identify specific points in the process that contributed to challenges for the executive branch and the General Assembly in identifying and procuring optimal technology solutions and appropriating the needed funds to implement the technology solutions. It is envisioned that using the HRWorks project as a case study will benefit the executive branch and the General Assembly in identifying holistic changes that can be implemented to provide benefit to information technology procurements in the future. Staff recommends that the Joint Budget Committee sponsor this legislation to outline the parameters of this additional evaluation and include an appropriation of $141,744 General Fund for the Office of the State Auditor to contract for the analysis and subsequent report.

Additionally, in conjunction with the Office of State Planning and Budgeting, and in accordance with the 2016 findings of the Information Technology Procurement Task Force, staff has identified several process changes that can be implemented prior to reviewing the more wide-ranging findings from the Office of the State Auditor that may immediately improve small pieces of the procurement process for information technology projects. A guiding principle for these proposed changes is to help clarify roles in the procurement process, whereby state agencies define their business needs, the "what," and OIT defines the optimal solutions, the "how." While challenges associated with the HRWorks procurement serve as the catalyst for these recommendations, it should be noted that the HRWorks procurement is not the only project which highlighted the need for challenges to be addressed.

Staff recommends a package of legislative changes that can be included in a bill authorizing and funding the analysis of the HRWorks procurement process, internal process changes that can implemented by the Governor's Office of Information Technology (OIT), and appropriation changes that can be included in the annual Long Bill appropriation for information technology projects. Specifically, staff recommends the following:

1 OIT's expertise is not leveraged in the idea generation and budgeting phases of projects to as great of a degree to ensure that solutions desired are in accordance with OIT's technology standards and are vetted for scope and budget. Staff recommends that the statutory provisions governing the project plan requirements for major information technology projects (Section 24-37.5-105 (4)(c), C.R.S.) be amended to include a planning and analysis function performed by OIT. It is anticipated that this function will be funded as part of each major information technology project. Additionally, it is recommended that OIT put in place an internal process change to better forecast agency major information technology project needs into the five year planning process.

2   As was identified by the Information Technology Procurement Task Force in 2016, vendors bidding on projects are aware of the budget threshold for projects, which reduces the state's ability to solicit competitively-priced proposals. Staff recommends two appropriation changes that can be included in the annual Long Bill appropriation for information technology projects and one internal process change to begin addressing this issue.

- First, beginning in FY 2018-19, staff recommends that agencies continue to receive individual appropriations in the capital construction section of the Long Bill for information technology projects, but that all money is reappropriated to OIT. This solution maintains transparency for agency appropriations and gives OIT, as the entity with information technology expertise, the power of the purse when negotiating with vendors.

- Second, beginning in FY 2019-20, staff recommends that funding for all new capital construction information technology projects is reappropriated to OIT in two line items only: projects and contingencies. This solution continues to maintain transparency for agency appropriations, while giving flexibility to OIT on how to allocate the sum of all estimated project money to negotiate pricing with vendors. This allows OIT to develop a plan for spending the money without indicating to vendors how much will be spent on each project.

- Third, staff recommends that OIT, the Office of State Planning and Budgeting, Joint Budget Committee staff, and state agency representatives develop a plan in the 2018 interim for FY 2019-20 for requesting and appropriating funds to agencies for information technology projects that maintains and adequate level of transparency and further improves OIT's ability to negotiate with vendors to obtain the best pricing for projects. The first two solutions recommended by staff provide OIT with increased ability to negotiate pricing, but do not address the issue of agency requests and appropriations, which could be used by vendors to bid on projects at a price point equal to agency appropriations. This solution seeks to remedy this remaining issue.

3   It is feasible within the current procurement process for vendors and solutions to be selected for projects that do not always align with OIT's technology standards and are challenging to implement within proposed budgets. Staff recommends that the statutory provisions governing the responsibilities of OIT (Section 24-37.5-105, C.R.S.) be amended to add the requirement that OIT develop a standard for vendor selection for major information technology projects and that the standard include a process for resolving differences of opinion between OIT and agencies in vendor selections.

4   The Department of Personnel's State Controller has the statutory authority under Section 24-30-202, C.R.S. to delegate to agencies the ability to authorize encumbrances of funds (e.g. sign contracts), but chooses not to delegate this authority to OIT for major information technology projects. Staff recommends that the statutory provisions governing the responsibilities of State Controller be amended to require the delegation of this authority to OIT for major information technology projects rather than just permitting the State Controller to delegate this authority. It is staff's opinion that OIT, as the executive branch's information technology expert, should be the entity responsible for making the final determination on any contract related to major information technology projects. State agencies, including the State Controller's Office, do not have the technical resources to provide oversight over contractual terms and scope management for such projects.

SUMMARY OF STAFF RECOMMENDATIONS

CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY PROJECTS						
	TOTAL FUNDS	GENERAL FUND	OTHER FUNDS	TOTAL FUNDS	GENERAL FUND	OTHER FUNDS
	Joint Technology Committee Recommendations			**Joint Budget Committee Staff Recommendations**		
FY 2017-18 APPROPRIATION						
SB 17-254 (Long Bill)	$58,800,059	$19,855,515	$44,200,500	$58,800,059	$19,855,515	$44,200,500
HB 18-1170 (supplemental bill)	6,147,878	2,888,529	3,259,349	(1,235,922)	0	0
TOTAL	**$64,947,937**	**$22,744,044**	**$47,459,849**	**$64,947,937**	**$22,744,044**	**$47,459,849**
FY 2018-19 RECOMMENDED APPROPRIATION						
JTC #1 IT Systems Interoperability (CDHS)	500,000	50,000	450,000	500,000	50,000	450,000
JTC #2 Human Resource Information System (OIT)	7,414,260	7,414,260	0	7,414,260	7,414,260	0
JTC #3 Strategic IT Infrastructure Needs (OIT)	5,122,000	5,122,000	0	5,122,000	5,122,000	0
JTC #4 Information Management System Updates (Education)	2,331,000	2,331,000	0	2,331,000	2,331,000	0
JTC #5 Electronic Birth Registration System Replacement (CDPHE)	2,440,000	745,000	1,695,000	2,440,000	745,000	1,695,000
JTC #6 Health IT Roadmap Initiatives (Governor)	6,605,000	1,875,500	0	6,605,000	1,875,500	0
JTC Cash Funded Law Enforcement Records Management System (DNR)	2,523,326	0	2,523,326	2,523,326	0	2,523,326
JTC Cash Funded Unemployment Insurance Mainframe Migration and Modernization (CDLE)	9,750,000	0	9,750,000	6,300,000	0	6,300,000
Joint Technology Committee Funding Line						
JTC #7 Technology and Communication Upgrades (Otero Junior College)	0	0	0	0	0	0
JTC #8 Security Intrusion Detection and Internal Door Access (Pueblo Community College)	0	0	0	0	0	0
JTC #9 Technology Infrastructure (Trinidad State Junior College)	0	0	0	0	0	0
JTC #10 Technology Infrastructure (Lamar Community College)	0	0	0	0	0	0
JTC #11 Storage and Virtualization (Community College of Denver)	0	0	0	0	0	0
JTC #12 Campus Emergency Notification and Power (Pikes Peak Community College)	0	0	0	0	0	0
TOTAL	**$36,685,586**	**$17,537,760**	**$14,418,326**	**$33,235,586**	**$17,537,760**	**$10,968,326**
INCREASE/(DECREASE)	**($28,262,351)**	**($5,206,284)**	**($33,041,523)**	**($31,712,351)**	**($5,206,284)**	**($36,491,523)**

CAPITAL CONSTRUCTION INFORMATION TECHNOLOGY PROJECTS						
	TOTAL FUNDS	GENERAL FUND	OTHER FUNDS	TOTAL FUNDS	GENERAL FUND	OTHER FUNDS
Percentage Change	(43.5%)	(22.9%)	(69.6%)	(48.8%)	(22.9%)	(76.9%)
FY 2018-19 EXECUTIVE REQUEST	**$41,098,551**	**$21,811,465**	**$19,287,086**	**$41,098,551**	**$21,811,465**	**$19,287,086**
Request Above/(Below) Recommendation	$4,412,965	$4,273,705	$4,868,760	$7,862,965	$4,273,705	$8,318,760

DESCRIPTION OF RECOMMENDATIONS

JTC #1 IT SYSTEMS INTEROPERABILITY (CDHS): IT SYSTEMS INTEROPERABILITY, PHASE 4 OF 5 (HUMAN SERVICES): The recommendation includes $500,000 total funds, including $50,000 General Fund, for FY 2018-19 for the fourth phase of a five phase project for the Department of Human Services to standardize all existing information technology systems the agency uses in an effort to allow the data contained in the systems to be made available without removing the data from the core systems. The solution, which will relies on enterprise service bus technology, is creating interfaces to access the data directly rather than exporting data from the core systems for import into other systems. Additionally, staff recommends that the funds for the project be reappropriated to OIT for FY 2018-19. The following table summarizes the total capital construction costs of the project.

IT SYSTEMS INTEROPERABILITY, PHASE 4 OF 5 TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2015-16 Appropriation	$12,815,940	$1,281,594
FY 2016-17 Appropriation	9,288,520	928,852
FY 2017-18 Appropriation	10,611,880	1,061,188
FY 2018-19 Request	500,000	50,000
FY 2019-20 Estimate	20,723,760	2,072,376
Total	**$53,940,100**	**$5,394,010**

JTC #2 HUMAN RESOURCE INFORMATION SYSTEM (OIT): The recommendation includes $7,414,260 General Fund for OIT for FY 2018-19 to continue the implementation of the time and leave tracking component in the Human Resources Information System (HRIS), known as "HRWorks." Note, the Joint Technology Committee supports the Joint Budget Committee action to require the Office of the State Auditor to evaluate the procurement process for this project. Additionally, staff recommends that the funds for the project be reappropriated to OIT for FY 2018-19. The following table summarizes the total capital construction costs of the project.

HRWORKS TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2014-15 Appropriation	$31,288,801	$31,288,801
FY 2017-18 Appropriation	2,888,529	2,888,529
FY 2018-19 Recommendation	7,414,260	7,414,260
Total	**$41,591,590**	**$41,591,590**

JTC #3 STRATEGIC IT INFRASTRUCTURE NEEDS (OIT): The recommendation includes $5,122,000 General Fund for OIT for FY 2018-19 to repair the Lakewood Data Center, including

implementing technologies to tie together the state's infrastructure (servers, networks, and applications), as well as electrical and cooling improvements. The following table summarizes the total capital construction costs of the project.

STRATEGIC IT INFRASTRUCTURE NEEDS		
TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2018-19 Recommendation	$5,122,000	$5,122,000
FY 2019-20 Estimate	5,264,000	5,264,000
Total	**$10,386,000**	**$10,386,000**

JTC #4 INFORMATION MANAGEMENT SYSTEM UPDATES (EDUCATION): The recommendation includes a one-time appropriation of $2,331,000 General Fund for FY 2018-19 for the Department of Education to update its infrastructure and make security and data privacy improvements. Note, this request has a corresponding operating request that was submitted for FY 2018-19 in the amount of $462,865 General Fund and 3.0 FTE to successfully implement the capital request. It is staff's opinion that the nature of the items requested in this submittal warrants funding these items in the operating section of the Long Bill rather than the capital construction section of the Long Bill. Staff discussed this with the Department and the Department is in agreement with staff's opinion.

JTC #5 ELECTRONIC BIRTH REGISTRATION SYSTEM REPLACEMENT (CDPHE): The recommendation includes a one-time appropriation of $2,440,000 total funds, including $745,000 General Fund, for FY 2018-19 for the Department of Public Health and Environment to replace the Colorado Vital Information System. COVIS, as it is known, is used to issue birth and death certificates. Note, the Department indicates that this request will necessitate an increase of $7 increase to the birth certificate fee. The Joint Technology Committee recommends that the Department evaluate the need for increased fees upon completion of the project or after three fiscal years, whichever is sooner. Additionally, staff recommends that the funds for the project be reappropriated to OIT for FY 2018-19.

JTC #6 HEALTH IT ROADMAP INITIATIVES (GOVERNOR): The request includes $6,605,000 total funds, including $1,875,500 General Fund, for FY 2018-19 for OIT and the Department of Health Care Policy and Financing to implement initiatives of the Colorado Health IT Roadmap for a variety of purposes, including data quality improvement, reporting upgrades, integrating cost and quality data, and using information technology to benefit coordination of care. The following table summarizes the total capital construction costs of the project.

COLORADO HEALTH IT ROADMAP INITIATIVES		
TOTAL CAPITAL CONSTRUCTION COSTS OF THE PROJECT		
FISCAL YEAR	TOTAL FUNDS	GENERAL FUND
FY 2018-19 Request	$6,605,000	$1,875,500
FY 2019-20 Estimate	11,508,333	1,150,833
FY 2020-21 Estimate	4,450,000	445,000
Total	**$22,563,333**	**$3,471,333**

JTC CASH FUNDED LAW ENFORCEMENT RECORDS MANAGEMENT SYSTEM (DNR): The recommendation includes a one-time appropriation of $2,523,326 cash funds for FY 2018-19 for the Department of Natural Resources to replace two separate and incompatible law enforcement records

systems with one records management system. The costs of the project will be shared by the Parks and Outdoor Recreation Cash Fund and the Wildlife Cash Fund. Additionally, staff recommends that the funds for the project be reappropriated to OIT for FY 2018-19.

JTC CASH FUNDED UNEMPLOYMENT INSURANCE MAINFRAME MIGRATION AND MODERNIZATION (CDLE): The Department requests, and the Joint Technology Committee recommends, an appropriation of $9,750,000 cash funds from the Employment Support Fund (money originates as part of each employer's unemployment insurance premium) to complete the final two phases of the Unemployment Insurance Modernization project. This project has received appropriations totaling $51,476,960 cash funds between FY 2016-17 and FY 2017-18. Additionally, the Department's request includes funding ($3,450,000) for an employer self-services portal.

Staff's recommendation differs from the request and the Joint Technology Committee's recommendation in that it does not include the requested $3,450,000 cash funds to develop an employer self-services portal. Given that this is the Department's third attempt at replacing the technologies supporting unemployment initiatives (Genesis and WyCAN were the first two that did not succeed), it is staff's opinion that the Department should focus its energy on successfully completing the project as proposed in FY 2016-17 before embarking on projects, such as the employer self-services portal, that are outside the core migration and modernization work. Thus, staff recommends an appropriation of $6,300,000 cash funds for FY 2018-19. Additionally, staff recommends that the funds for the project be reappropriated to OIT for FY 2018-19.

Joint Technology Committee Funding Line

JTC #7 TECHNOLOGY AND COMMUNICATION UPGRADES (OTERO JUNIOR COLLEGE): The request includes $543,300 General Fund for FY 2018-19 for Otero Community College to replace all telephone handsets, as well as all of its classroom-based telephones. The request also seeks funds to replace video and audio instruction equipment and adding equipment to classrooms that lack these capabilities. This item was prioritized below the funding line by the Joint Technology Committee. Staff recommends rejecting the request, as well.

JTC #8 SECURITY INTRUSION DETECTION AND INTERNAL DOOR ACCESS (PUEBLO COMMUNITY COLLEGE): The request seeks $815,000 General Fund for FY 2018-19 for Pueblo Community College to upgrade its internal building and perimeter security systems. This item was prioritized below the funding line by the Joint Technology Committee. Staff recommends rejecting the request, as well.

JTC #9 TECHNOLOGY INFRASTRUCTURE (TRINIDAD STATE JUNIOR COLLEGE): The request includes $615,310 General Fund for FY 2018-19 for Trinidad State Junior College to replace and upgrade its network infrastructure, including wireless network capabilities, disaster recovery systems, and video surveillance equipment. This item was prioritized below the funding line by the Joint Technology Committee. Staff recommends rejecting the request, as well.

JTC #10 TECHNOLOGY INFRASTRUCTURE (LAMAR COMMUNITY COLLEGE): The request seeks $784,886 total funds, including $769,886 General Fund, for FY 2018-19 for Lamar Community College to upgrade its instructional technology, office and classroom computer systems, servers,

telephones, and digital signage. This item was prioritized below the funding line by the Joint Technology Committee. Staff recommends rejecting the request, as well.

JTC #11 STORAGE AND VIRTUALIZATION (COMMUNITY COLLEGE OF DENVER): The request includes $1,129,604 total funds, including $1,005,344 General Fund, for FY 2018-19 for the Community College of Denver to update its network storage capabilities and server infrastructure.

JTC #12 CAMPUS EMERGENCY NOTIFICATION AND POWER (PIKES PEAK COMMUNITY COLLEGE): The request includes $524,865 General Fund for FY 2018-19 for Pikes Peak Community College to install emergency audible and visual alert notification devices in hallways, indoor open spaces, and the outdoor areas near building entrances on its three campuses. Additionally, the College's request includes funding to install power infrastructure to support the notification system. This item was prioritized below the funding line by the Joint Technology Committee. Staff recommends rejecting the request, as well.

MAJOR DIFFERENCES FROM THE REQUEST

Staff's recommendation for FY 2018-19 is $7,862,965 total funds, including $4,273,705 General Fund, lower than the request. The following items include the significant differences between staff's recommendation and the request for FY 2018-19:

- (Department of Labor and Employment) The Department's Unemployment Insurance Modernization project received appropriations totaling $51,476,960 cash funds between FY 2016-17 and FY 2017-18. For FY 2018-19, the Department requests and the Joint Technology Committee recommends, an appropriation of an additional $9,750,000 cash funds from the Employment Support Fund to complete the final two phases of the project. Within the request and the Joint Technology Committee recommendation, is $3,450,000 for an employer self-services portal. Given that this is the Department's third attempt at replacing the technologies supporting unemployment initiatives (Genesis and WyCAN were the first two that did not succeed), it is staff's opinion that the Department should focus its energy on successfully completing the project as originally proposed in FY 2016-17 before embarking on projects, such as the employer self-services portal, that are in addition to the core system migration and modernization work.

- (Colorado Commission on Higher Education) In accordance with the Joint Technology Committee's recommendations, staff does not recommend the request for $4,412,965 total funds, including $4,273,705 General Fund, for a series of technology infrastructure upgrades at various community and junior colleges. Note, the Joint Technology Committee categorized these requests under a header of "if additional funding is available."