OFFICE OF THE GOVERNOR
FY 2019-20 JOINT BUDGET COMMITTEE HEARING AGENDA

Friday, December 21, 2018
3:00 pm – 5:00 pm

3:00-3:15 INTRODUCTIONS AND OPENING COMMENTS

Presenter: Pat Meyers, Governor's Chief of Staff
Lauren Larson, OSPB Director

3:15-3:25 OFFICE OF LIEUTENANT GOVERNOR

Main Presenters:
- Donna Lynne, Lieutenant Governor

Supporting Presenters:
- Carrie Paykoc, Interim Director of the Office of eHealth Innovation and State Health IT Coordinator
- Barbara Martin, Director of the State Innovation Model Office

Topics:
- Health Information Technology Projects: Page 3, Questions 1-3 in the packet

3:25-4:05 OFFICE OF INFORMATION TECHNOLOGY

Main Presenters:
- Suma Nallapati, Chief Information Officer and Executive Director
- Deborah Blyth, Chief Information Security Officer
- Anthony Neal-Graves, Colorado Broadband Office Executive Director
- David McCurdy, Chief Technology Officer

Supporting Presenters:
- Brenda Berlin, Deputy Chief Information Officer and Chief Financial Officer
- Daniel Santangelo, Chief Operating Officer and Deputy Chief Technology Officer
- William Chumley, Chief Customer Officer
- Brandi Simmons, Chief Communications Officer & PIO
- Ramona Gomoll, Chief People Officer

Topics:
- Information Technology Management: Page 6, Questions 4-7 in the packet, Slides 1-11
- Security: Page 7, Questions 8-9 in the packet, Slide 8
- Building Relocation: Page 10, Questions 10-12 in the packet, No slides

4:05-4:40 OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE

Main Presenters:
- Stephanie Copeland, Executive Director
- Jeff Kraft, Director of Business Funding and Incentives

Supporting Presenters:
- Rosy McDonough, Director, Minority Business Office
- Katie Woslager, Senior Manager, Advanced Industries
- Donald Zuckerman, Director, Colorado Office of Film Television and Media
- Cathy Ritter, Director, Colorado Tourism Office

Topics:
- Financial Incentives: Page 11, Questions 13-19 in the packet
- General Questions: Page 23, Questions 20-23 in the packet

4:40-4:50 OFFICE OF STATE PLANNING AND BUDGETING

Main Presenters:
- Lauren Larson, OSPB Director

Supporting Presenters:
- Roger Low, Pay for Success Manager

Topics:
- Pay for Success Program: Page 28, Question 24 in the packet

4:50-5:00 COLORADO ENERGY OFFICE

Main Presenters:
- Kathleen Staks, Executive Director

Supporting Presenters:
- Christian Williss, Director, Transportation Fuels and Technology

Topics:
- Electric Vehicles: Page 30, Questions 25-28 in the packet

Friday, December 21, 2018
3:00 pm – 5:00 pm

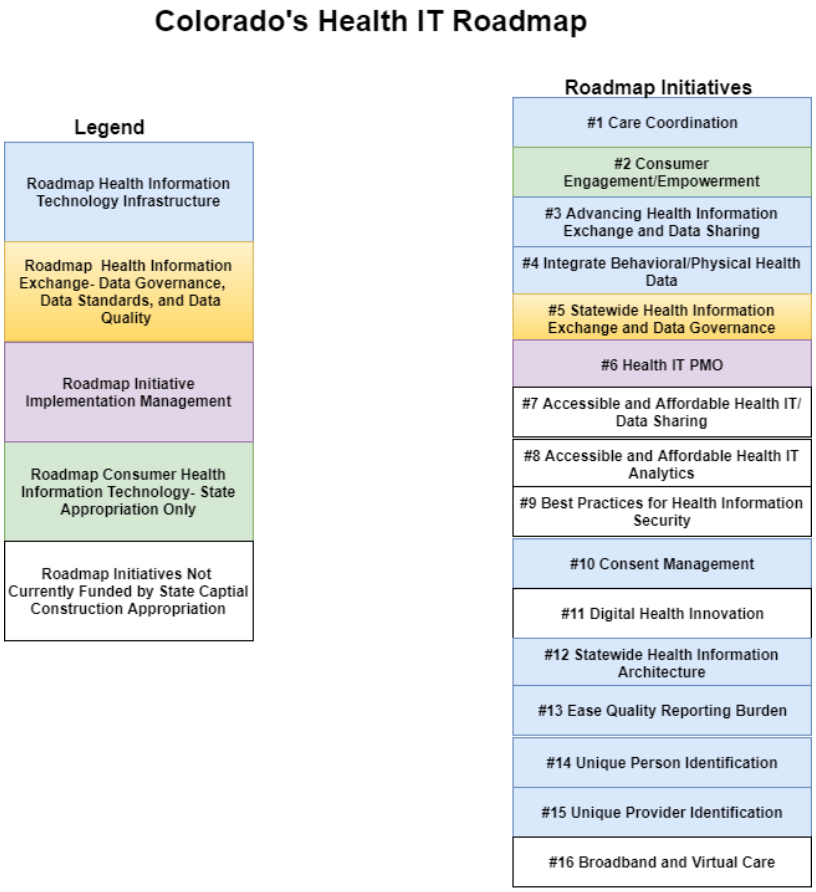
OFFICE OF THE LIEUTENANT GOVERNOR

HEALTH INFORMATION TECHNOLOGY PROJECTS

1. *Please provide a brief overview of the Colorado Health IT Roadmap Initiatives.*

   RESPONSE: Colorado's Health IT Roadmap led by the Office of eHealth Innovation (OeHI) with oversight from the eHealth Commission and input from a diverse set of stakeholders is focused on advancing health in Colorado through enhancements and alignment of health information exchange infrastructure across Colorado's communities. This includes reducing administrative burden of clinicians associated with using electronic health records for documentation and reporting and enhancing infrastructure to share the right health information at the right time. In totality, these efforts come together to leverage enhanced federal funding available through Medicaid to support improved health care delivery, improved data quality, enhanced health IT and health information exchange infrastructure, preparation for payment reform, reduced health care costs, and ultimately the improved health of all Coloradans.

   The Office of eHealth Innovation was appropriated capital construction funds for nine of Colorado's Health IT Roadmap initiatives and is requesting operations funding to support OeHI's operations and initial operations and maintenance of these initiatives. There are no systems replacements being contemplated in this plan, but there are new capabilities and new systems being added to Colorado's infrastructure. Below is an image that groups the initiatives by funding and general scope of work. Policy development is also a core component of each of these initiatives.



2. *Has the Office engaged with the new administration to discuss whether or not they are interested in continuing the Colorado Health IT Roadmap Initiatives and whether the Office of the Lieutenant Governor is the proper "home" location for the Office of eHealth Innovation that supports the Colorado Health IT Roadmap Initiatives (as opposed to the Governor's Office of Information Technology)?*

   RESPONSE: The Lt. Governor's Office has engaged with Governor-Elect Polis' transition team and discussed the value of the Office of eHealth Innovation and the Colorado Health IT Roadmap. We defer to the Governor-Elect and his team on any specific organizational decisions they may take in the future, but note that the Health IT Roadmap aligns with the Governor-Elect's 100 Day Roadmap with regard to the prioritization of health care cost reduction and quality improvement. Colorado has until September of 2021 to leverage federal funds, known as the American Reinvestment and Recovery Health Information Act, to enhance and connect infrastructure for health information exchange. Colorado's Health IT Roadmap is designed to help the state leverage and implement these funds in a timely and high impact manner.

3. *What is the transition plan for the State Innovation Model (SIM) Office given that federal grant funding through the State Innovation Model and the Transforming Clinical Practice Initiative (TCPi) is expiring? Does this transition plan require additional staff or operating costs beyond what is requested in the Office's decision item?*

RESPONSE: The SIM Office recommends extending a small team of 3.0 FTE for six months to appropriately transition and closeout the SIM and TCPi initiatives, which are funded by the Center for Medicare & Medicaid Services through July and September 2019, respectively. This work includes the continued development of an all-payer model that would help sustain health care reform efforts in the state as well as finalization of initiative deliverables and invoices, record maintenance and storage. Without this small team, all of these responsibilities would fall to existing state staff, who lack bandwidth and institutional knowledge and that could jeopardize the success of these initiatives.

The transition plan ensures momentum for the leadership SIM has provided to advance health care delivery and payment reform across Colorado. SIM has helped primary care providers integrate physical and behavioral health across the state, which has resulted in fewer emergency room visits, improved blood sugar levels (Hemoglobin A1C) for patients with Diabetes and SIM practices show higher rates of depression screening than national averages. TCPi has helped providers reassess their processes to reduce unnecessary costs, which helps them succeed with alternative payment models. As noted earlier, this team will help develop an all-payer model, work that was initiated and managed by SIM and must be properly transitioned to the new administration. The SIM Office has made significant progress building a stakeholder driven coalition to explore development of this type of value-based payment model, which will drive quality and reduce unnecessary costs.
Transitioning this important health care reform work to the next administration is essential to sustaining the progress made across the state. The Governor's Office connection has enabled SIM to accomplish work across traditional silos, which will be increasingly important moving forward. The ability for the SIM team to assemble stakeholders and convene meetings as a Governor's Office initiative sets a collaborative tone that has facilitated a more productive discussion with a diverse group of stakeholders in Colorado. This type of collaboration has been called out in evaluation reports, and highlighted during national meetings when Colorado is singled out as a national leader in health care reform efforts. It will be important to finish the initiative with this type of strong executive support to demonstrate the state's ongoing commitment to health care reform and recognize the $76 million investment from the federal government.

This transition plan requires 3.0 FTE for six months to ensure proper closeout of these two, federally funded initiatives. There are no operating costs beyond what was outlined in the decision item submitted to the JBC.

OFFICE OF INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGY MANAGEMENT

4. *Why do state agencies, rather than the Office of Information Technology, request funding for information technology-related decision items?*

   RESPONSE: OIT acts as a central service provider for state agencies on information technology (IT). While IT solutions are often integral to programs at state agencies, the state agencies are the owners of the specific programs, and, therefore, understand the unique business needs of the program and partner with OIT to identify requirements and find a solution that meets those needs. Historically, state agencies are the first to identify problems and opportunities that require an IT solution. OIT reviews and approves decision items that have an IT impact including those submitted by other agencies. Finally, state agencies have typically received a fair amount of direction from the Office of State Planning and Budgeting on what the agencies submit for their decision items.

5. *Please describe the role of the Statewide Internet Portal Authority (SIPA) in partnering with the Office of Information Technology to deliver services to state agencies and to the public. Is this relationship formally defined? If not, should it be formally defined, as suggested in the BerryDunn evaluation?*

   RESPONSE: SIPA is charged with creating an efficient, effective, and user friendly statewide internet portal to serve as a place where Coloradans can electronically access state government information, products, and services, as well as provide e-Government services to state and local governments. SIPA delivers state government websites such as colorado.gov and provides services to municipalities and other local governments outside the statutory authority of OIT. SIPA maintains Payment Card Industry (PCI) compliance and infrastructure providing credit card transaction services for state agencies and websites. SIPA also provides IT consulting and delivery services to state agencies in accordance with OIT standards and procurement practices. Many of these consulting services meet local government needs outside of the purview of OIT.

   The CIO is a member of the SIPA board and frequently discusses IT services and needs across the state. OIT utilizes SIPA for a number of these technology needs. While there are overlaps in both organizations' missions, OIT works with many vendor partners to align strategic outcomes. OIT will work with SIPA to partner and streamline these roles. These efforts could be more formally documented as suggested in the BerryDunn evaluation. Formalizing IT roadmaps and service level commitments between OIT and SIPA could be achieved through collaborative efforts from both entities working together.

6. *Is it possible to transfer information technology infrastructure from state agencies to the Office of Information Technology, as suggested in the BerryDunn evaluation, given that the needs of state agencies are so varied? Are there certain types of infrastructure that would be easier to transfer to the Office of Information Technology? Are there certain types of infrastructure that would be more difficult to transfer to the Office of Information Technology?*

RESPONSE: OIT agrees with BerryDunn that technology assets can be consolidated. This consolidation step has been completed in a number of states as mentioned in the evaluation. Immediate areas for consideration include desktops, servers, phones, storage, firewalls, routers, and other infrastructure equipment. In addition, certain technology software and cloud products such as Adobe, Oracle, and Amazon Web Services (AWS), etc. would be ideal for consolidation. These assets are already tracked by OIT in most cases and are standardized across agencies. One-off equipment is more challenging but also more relevant for OIT to begin taking control to ensure statewide efficiency and support.

7. *If information technology infrastructure is transferred from state agencies to the Governor's Office of Information Technology, does the Office of Information Technology have sufficient capacity to manage these assets? Would the Office be able to provide assurances to state agencies that responsiveness to issues that arise with these assets will meet or exceed the level of responsiveness that state agencies currently receive?*

   RESPONSE: Technical support of assets has been managed by OIT for several years for the vast majority of hardware and software. This was validated by the BerryDunn evaluation. OIT currently has SLC's (Service Level Commitment) with each agency, which outlines OIT's minimum service levels expected to be met or exceeded. OIT reports on the achievement of service levels via monthly metrics that drive and show continuous improvement in meeting these SLC's.

   As indicated by the BerryDunn evaluation, OIT has been technically supporting agency IT assets for many years but in many cases does not have the operating funds associated with maintaining these assets or realize the recovery of depreciation for the assets. Without such funding, OIT does not have the necessary controls to enforce standardized best practices for asset lifecycle management. One of the key findings of the BerryDunn evaluation is the financial benefit to the state utilizing correct asset management and depreciation, including collection from federal agencies via state agency chargeback of the depreciation that could be contributed to an asset maintenance and refresh reserve. OIT has some concerns that the funding to support the assets no longer exists within agency IT specific lines. Transferring assets without associated funding and necessary support staff would not enable OIT to effectively manage IT assets and service levels.

SECURITY

8. *Please describe the nature of the attack that occurred in February 2018 on the Colorado Department of Transportation. In the response, please also provide information on how the attack was resolved, how much the attack cost, and the steps that have been taken to ensure that an attack of this type does not happen again.*

   RESPONSE: The Colorado Department of Transportation (CDOT) systems suffered a ransomware attack. The attacker's goal was meant to hold the department hostage in exchange for virtual currency. This was a known attack that had been crippling organizations across the country and the world. The malware attack was a modified version of the SamSam ransomware that was first used back in 2016. The malware encrypts computers in a way that the system or data becomes unusable until the organization or individual pays the ransom. The entry into the CDOT environment was a misconfigured server, which came under attack the day it was connected to the internet, and compromised

within 48 hours. Almost 1,300 workstations and 400 servers were encrypted and unusable. The incident took down access to all applications within CDOT's Business Operations environment.

- **The Resolution.** OIT engaged several partners, including the Office of Emergency Management and Colorado National Guard to help contain and eradicate the malware. OIT was able to restore all applications and data from backups that had been taken the day before the ransomware incident. Multiple security enhancements, which were already in progress, were accelerated for CDOT to bring them up to a healthier and more secure state than prior to the attack.
- **The Cost.** The actual cost of the event is estimated to be $1.7 million including the following:
    - costs to CDOT's business
    - external assistance
    - tools implemented to assist with recovery
    - meals to support the staff working seven 12-18 hour days for a month
- **The Plan Going Forward.** Two efforts underway (one security tool upgrade and one security tool implementation) were accelerated during the CDOT incident and completed at that time. Infrastructure personnel are being aggressively trained on cloud security, and were reminded to follow security standards, even for temporary or short-term systems.
    - **FY 2019-20 OIT Decision Item:** "R-02 Securing IT Operations" was strategically created and submitted to the legislature for consideration to accelerate security projects underway, which would have provided earlier detection of the attack or assisted in containing and lessening the impact.
- The CDOT After Action report is a public document which can be found here: https://www.colorado.gov/pacific/cobeoc/news/after-action-report-released-cdot-cyber-incident

9. *What lessons did the Office learn from the attack on the Colorado Department of Transportation and how do these lessons comport with the $11,857,490 and 9.0 FTE requested for FY 2019-20?*

RESPONSE: The CDOT incident was an eye opener, making it very clear that security projects that are in progress but not complete, provide no protection during a security incident. One example: OIT had a security tool deployment underway and scheduled to implement at CDOT the week after the SamSam ransomware infection. Had this tool been in place prior, the CDOT incident would have been a minor incident rather than a month-long outage. It became very clear that OIT needs to accelerate the implementation and delivery of several important security initiatives which are currently underway to provide maximum protection for the state. The request is a culmination of lessons learned and is meant to hasten the implementation of important security measures.

The following items either contributed directly to the success and magnitude of the attack, or delayed OITs ability to recover:

- **Logging and Monitoring of Security Events.** There was no indication of an attack in progress because critical systems were not sending their logs to the logging platform. Additionally, the analysis of the events that were being sent to the logging platform

was taking an extreme amount of time due to the capabilities and resources of the current platform.

  - OIT has a very large logging initiative underway to ensure that all critical and essential systems and infrastructure components are sending security logs to a centralized log collection and analysis tool. This effort has been underway for several years, and progress has stalled. Further, as more systems are configured to send security logs to the solution, it has been discovered that OIT's current Security Logging solution is not sized to handle the volume of traffic and to perform analysis on such a large population of security events.
  - With 8.4 million security events per day, there may be important security events that are missed due to the sheer volume of the events. OIT has deployed a Security Analytics and Endpoint Detection and Response toolset to help discover anomalous events; however, tuning the various security tools and responding to incidents is an ongoing (daily) work effort requiring more personnel than are dedicated to this effort. OIT is exploring alternatives to have more people monitoring the state network, including outsourcing some of the monitoring and tuning of the tools.

- **Identity and Access Management and Privileged Access Management.** Insufficient control over a privileged account with the highest level of access to the CDOT environment was a direct contributor to the success of the CDOT attack. While OIT has had multiple levels of projects underway, for years, to implement better controls to reduce access risk, these efforts have been slow moving and the limited progress made has not substantially reduced risk. These efforts, including Role Based Access, 2-Factor Authentication, and Privileged Access Management need to be accelerated and completed to prevent the success of the next attack.
- **Public Cloud Operations and Governance.** An incorrectly configured cloud service provided the entryway into the CDOT environment. OIT personnel need to be better trained and knowledgeable on deploying cloud services securely and mitigating risks related to cloud based systems. Additionally, OIT needs a Cloud Architect to ensure that future cloud solutions are designed correctly to mitigate security risk to the state.
- **Turnover and lack of firewall personnel.** OIT continues to be affected by turnover in areas of operational security expertise. OIT lost knowledgeable personnel in the Security Operations Center in the prior few months leading up to the CDOT incident. All OIT firewall personnel departed in November 2017 for higher salaries elsewhere. While one of the positions had been recently filled, OIT solicited volunteers from other public sector entities to help with the firewall monitoring, investigation and work that needed to occur. OIT is actively recruiting Security Operations employees; however, it has been a slow process as there is a lot of local competition for these valuable resources. OIT is currently supplementing with consultants and has a large documentation effort underway to help new employees and consultants come up-to-speed quickly. "R-02 Securing IT Operations," if approved, will help to increase salary levels for these in-demand and hard-to-retain skills. The number one reason cited for the individuals leaving this group is recruitment by the private sector with higher salaries. OIT is also evaluating the use of a Managed Security Service to offload much of the work. This evaluation cost is included in the pending FY 2019-20 Decision Item.
- **Lack of Documentation.** The absence of sufficient network documentation and other documented procedures added time delay to recovering CDOT's business operations. "R-02 Securing IT Operations" will provide funding to assist in the creation of

important documentation. This documentation will also help new employees to come up to speed more quickly.

- **Outdated Firewalls.** The firewalls for CDOT were replaced during the security incident. However, other agencies still have outdated vendor-unsupported firewalls, which are not capable of the advanced protection of our enterprise standard. R-02 Securing IT Operations will provide funding to replace all outdated agency firewalls to provide better protection for each agency.
- **Little visibility into the cloud.** The virtual server instance was created only two days prior to the attacker gaining access. And while a penetration test was conducted in November, because this system's internet address was not on the state network it would have never been detected. Better partnership with cloud service providers and better tools to gain visibility into cloud services is needed to detect poorly configured systems that might put state data and networks at risk.

BUILDING RELOCATION

10. *How much will it cost to get out of the current lease at the Pearl Plaza building located at 601 East 18th Avenue in Denver?*

    RESPONSE: OIT has estimated the cost of transitioning from the current 5-year lease to be $763,442 (80% of $954,302) for the Unamortized Tenant Improvement Allowance. Total costs for the move, including transitioning from the current lease as well as the new lease costs, will be part of the complete negotiation process as OIT secures the new location and determines an appropriate timeline. OIT estimated the cost to break the lease would be less expensive than paying for the premium of an annual renewal.

11. *Why is the Office focused on moving to downtown Denver? Were other locations considered that are more affordable?*

    RESPONSE: OIT evaluated options for relocating staff outside of the downtown area in either the northern or southern end of the metro area. While locations in these areas have lower lease costs compared to downtown, they would still represent a significant increase over current rent that is due to the low quality and location of the Pearl Plaza facilities. In addition, estimated one-time costs for move and build out of the location would be similar throughout the Denver market. OIT determined that these locations outside of the downtown Denver area would pose similar challenges with recruitment and retention, since prospective employees in the technology industry strongly prefer a downtown location. OIT's objective is to position its operations and administration center location in the downtown market in order to better support agencies, the majority of which are in the Capitol Complex area.

12. *Has the Office engaged with the new administration to discuss whether or not they are interested in moving from the Pearl Plaza building?*

    RESPONSE: OIT leadership discussed the desire to move to a new location with governor-elect Polis' transition team. No decisions were made during that discussion.

OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE

FINANCIAL INCENTIVES

13. *How does the Office coordinate financial incentive programs used to attract new businesses to Colorado and to retain existing businesses so that the different programs work in unison toward meeting the state's economic goals?*

    RESPONSE: The OEDIT office coordinates financial incentives in a collaborative way, across divisions and across agencies.

    Our business retention and recruitment strategy is informed and driven heavily by data and analytics, as well as other quantitative and qualitative data collected in surveys and in person meetings and interviews. Our proactive strategies takes into account all of the following: consolidating the existing supply chains of Colorado companies, targeting our existing 14 key industries of primary employers, aligning with the priorities of local partners, targeting companies with an existing presence in Colorado that are considering expanding, proactively working to retain companies involved in M&A activity and other economic drivers.

    We evaluate each opportunity based on the needs of the client and identify ways to promote Colorado as the most competitive business climate for the project. In doing so, we look at the top decision drivers for the deal and monetize them using research backed data and metrics. If and when one of our financial programs can be complemented or leveraged by another State program, we work in an inter-agency manner to coordinate the effort. When we present our deals to the Economic Development Commission for consideration, all of the financial tools used to compete are identified for the commission to consider during their deliberations. The agency we work the most closely with on these opportunities is DOLA and CDOT.

14. *What is the return on investment for the Enterprise Zone Program, the Job Growth Incentive Tax Credit Program, and the Regional Tourism Act? In the response, please provide a breakdown of the geographical areas that have benefitted from these programs and how the Office uses these incentives to boost economic development outside of the Denver metro area.*

    RESPONSE:

    <u>Job Growth Incentive Tax Credit (JGITC) program ROI</u>

    Program Description:
    JGITC assists the state in competing with other states and countries for headquarters moves, expansion projects, and/or to retain business in the state. The following are the major program element as defined in CRS 39-22-531 (Program started 1/1/2009 ends 12/31/2026).

    - The Job Growth Incentive Tax Credit (JGITC) provides a state income tax credit equal to 50% of FICA paid by the business on the net job growth for each calendar year in the credit period. (Eight-year term of each incentive awarded starting 1/12014, and five-year term prior to that).

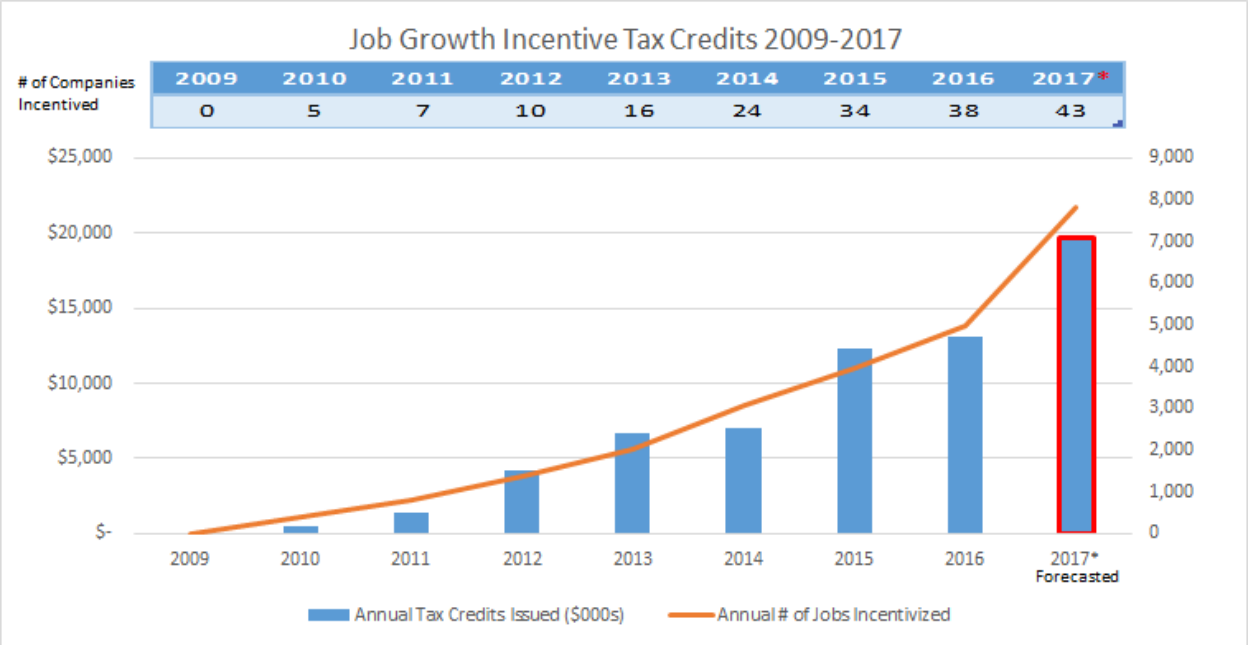
- A business must undertake a job creation project for which Colorado is competing with at least one other state or country for the project.
- The JGITC credit must be a major factor in the business decision to locate or retain the project in Colorado. The project must meet certain requirements under the Colorado Economic Development Commission's (EDC) Job Growth Incentive Tax Credit Program.
- A business may not start or announce the proposed project in Colorado (including locating or expanding in the state, hiring employees related to this project or making material expenditures for this project) until a final application has been submitted to the EDC and approved.
- No credit will be given if the Average Annual Wage (AAW) of the Net New Jobs (NNJs) is not at least 100% of the AAW of the county in which the project is taking place.
- No credit will be given if the until at least 20 NNJs are created (5 for a business located in an Enhanced Rural Enterprise Zone).
- Credits in excess of a taxpayer's state tax liability may be carried forward for up to ten years. Any amount not used in ten years expires. Tax credits will not be refunded and cannot be sold or transferred unless granted an award by the EDC for the very limited Transferable Tax Credit program.

JGITC Return on Investment (ROI):

Tax credits are vested in arrears (only after jobs are maintained for at least one year), are only generated by the creation of Net New Jobs (NNJs) to Colorado, and net new employees pay more in state income and sales tax than the tax credits paid to the employer. Therefore, each dollar of credit claimed generates a net positive cash flow to the state. This can be seen in the "State of Colorado ROI" table below, where each dollar of credit claimed generates approximately $1.33 in State Revenue, or an ROI of 1.33 even using conservative assumptions as listed below. Estimated taxes collected are based on an AAW of $100,000 which is a conservative estimate of the program's average (The weighted AAW in 2017 is forecasted to be $111,913). We estimate that the State of Colorado has generated a net positive cash flow of more than $21 million from 2009 to 2017.

Note, this calculation is conservative for the following reasons:

- Wages above $100,000 have higher ROIs.
- This ROI does not include the tax benefits to local municipalities or ancillary business and economic activity caused by economic multipliers.
- This ROI assumes that all tax credits are claimed on income tax returns in the year they are earned (when in fact there is substantial "breakage").
- The calculation does not include residual benefits from jobs that last longer than the tax credit payments.



State of Colorado ROI	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Credit Amount Issued	$0.0M	$0.5M	$1.4M	$4.2M	$6.7M	$7.1M	$12.3M	$13.1M	$19.6M
Estimated Wages of Incentivized Jobs	$0.0M	$13.2M	$36.9M	$108.5M	$174.3M	$184.8M	$320.8M	$343.0M	$513.6M
Estimated Taxes (Sales and Income) Collected by State	$0.0M	$0.7M	$1.9M	$5.5M	$8.9M	$9.4M	$16.3M	$17.4M	$26.1M
Net Cash Flow to State (Taxes Collected - Credit Issued)	$0.0M	$0.2M	$0.5M	$1.4M	$2.2M	$2.3M	$4.0M	$4.3M	$6.4M

*the metrics given for 2017 are based on a forecast of the credits to be issued for 2017.

To see how both the JGITC and Enterprise Zone programs tax credits are paid across the state by county please see the table below. Note the table is sorted by total credits per county per capita in descending order so that the counties that received the largest per capita tax credits are listed at the top of the table. 2017 data was used because it is the most recent year with complete data available but some JGITC forecasted credits.

Enterprize Zone and Job Growth Incentive Tax Credits Per Capita by County in Calendar Year 2017
As of 12/14/2018

County	Population	Sum of Total EZ Credits	Sum of JGITC Credits	Total EZ and JGITC Credits Per Capita
Prowers County	12,004	$ 4,093,960		$341.05
Costilla County	3,771	$ 1,140,232		$302.37
Rio Grande County	11,251	$ 1,854,821		$164.86
Kiowa County	1,364	$ 165,110		$121.05
Baca County	3,539	$ 412,703		$116.62
Dolores County	2,040	$ 204,367		$100.18
Kit Carson County	7,154	$ 649,169		$90.74
Washington County	4,921	$ 425,447		$86.46
Yuma County	10,075	$ 859,006		$85.26
Phillips County	4,275	$ 363,808		$85.10
Cheyenne County	1,835	$ 114,592		$62.45
Saguache County	6,631	$ 336,214		$50.70
Sedgwick County	2,314	$ 115,523		$49.92
Lincoln County	5,526	$ 273,381		$49.47
Bent County	5,866	$ 282,738		$48.20
Mineral County	752	$ 32,193		$42.81
Moffat County	13,112	$ 523,976		$39.96
Logan County	21,893	$ 646,842		$29.55
Clear Creek County	9,625	$ 267,946		$27.84
Weld County	304,435	$ 8,194,016		$26.92
Montezuma County	26,074	$ 635,134		$24.36
Conejos County	8,117	$ 182,619		$22.50
Grand County	15,297	$ 323,252		$21.13
Ouray County	4,783	$ 94,588		$19.78
Morgan County	28,075	$ 483,193		$17.21
Denver County	705,651	$ 6,614,927	$ 5,072,807	$16.56
Alamosa County	16,056	$ 265,579		$16.54
Rio Blanco County	6,345	$ 100,272		$15.80
Adams County	503,375	$ 7,588,739	$ 44,465	$15.16
Arapahoe County	643,257	$ 1,536,294	$ 7,639,964	$14.27
Jackson County	1,375	$ 17,811		$12.95
Otero County	18,370	$ 234,566		$12.77
San Juan County	714	$ 8,665		$12.14
Broomfield County	68,169	$ 43,255	$ 757,617	$11.75
Montrose County	41,763	$ 460,898		$11.04
Crowley County	5,749	$ 56,894		$9.90
Routt County	25,178	$ 230,596		$9.16
Huerfano County	6,605	$ 60,267		$9.12
Hinsdale County	791	$ 7,081		$8.95
Mesa County	151,900	$ 1,350,980		$8.89
Las Animas County	14,197	$ 118,449		$8.34
Jefferson County	575,193	$ 2,030,178	$ 2,592,156	$8.04
Garfield County	59,167	$ 446,221		$7.54
Pueblo County	165,974	$ 1,167,703		$7.04
Delta County	30,578	$ 175,148		$5.73
Larimer County	343,853	$ 612,027	$ 1,258,495	$5.44
Elbert County	25,594	$ 109,156		$4.26
Boulder County	322,854	$ 364,581	$ 978,987	$4.16
Archuleta County	13,316	$ 52,555		$3.95
Douglas County	335,635	$ 20,236	$ 1,299,795	$3.93
El Paso County	701,283	$ 2,356,238		$3.36
Lake County	7,705	$ 21,668		$2.81
Chaffee County	19,623	$ 53,314		$2.72
Fremont County	47,521	$ 122,765		$2.58
Gunnison County	16,871	$ 40,906		$2.42
Custer County	4,859	$ 7,112		$1.46
Park County	17,892	$ 25,279		$1.41
La Plata County	55,619	$ 52,663		$0.95
San Miguel County	7,967	$ 4,619		$0.58
Teller County	24,625	$ 12,697		$0.52
Eagle County	54,662			$0.00
Gilpin County	6,000			$0.00
Pitkin County	17,875			$0.00
Summit County	30,555			$0.00
Grand Total	**5,609,445**	**$49,045,169.00**	**$19,644,286.00**	**$12.25**

Enterprise Zone

The Enterprise Zone (EZ) program is one of the State's most substantial economic development programs. It was created by the General Assembly to provide economic incentives, and promote access to capital, and a positive business climate in areas of high unemployment, low per capita income, or slow population growth.

Enterprise Zones are a tool to support local economic development efforts. Enterprise Zone designation is initiated by communities; local administrators work with businesses to promote development within the zones. Zone administrators may also establish EZ Contribution Projects with non–profit organizations or local governments to support economic revitalization in the Enterprise Zones.

Enterprise Zone ROI

In the state's fiscal year 2018, 4,735 businesses certified for EZ tax credits. Specific investment or actions must be completed to earn each EZ tax credit. Additionally, the taxpayer must pre-certify in advance of the action attesting that the EZ tax credit is a factor in their decision to invest or hire new employees.

- $42.7 million in state EZ Investment Tax Credits (awarded at 3% of the investment) incentivized businesses to invest $1.4 billion in qualified business personal property.
- $344,373 in EZ Commercial Vehicle Investment Tax Credits (at 1.5% of the investment value) influenced business to purchase, register, and base commercial vehicles worth more than $22.9 million in Colorado EZs.
- $2.5 million in EZ Job Training Tax Credits (awarded at 12% of the training cost) encouraged businesses to invested $20 million in training 31,500 employees that work in the Enterprise Zones.
- $6.36 million in EZ New Employee Tax Credits influenced businesses operating in Enterprise Zones to hire 4,924 net new employees. For each net new employee at the business over the course of the year a $1,100 tax credit is earned. Businesses operating in Enhanced Rural Enterprise Zones earn an additional $500 for each net new employee. Agricultural processing businesses earn an additional $500 for each net new employee.
- $1.15 million in EZ Employer Sponsored Health Insurance Tax Credits was awarded to Enterprise Zone businesses covering at least 50% of the cost of a qualified health plan for their employees. A $1,000 tax credit is available to new business during their first 2 years operating in the EZ for each net new employee covered.
- $337,902 in EZ Vacant Commercial Building Rehabilitation Tax Credits encouraged the rehabilitation of 16 buildings in Enterprise Zones. Almost $1.7 million was invested for a 25% income tax credit capped at $50,000 per building.
- $943,400 in EZ Research & Development tax credits incentivized 75 businesses to increase R&D spending. Businesses earn a 3% tax credit on the increase in R&D expenditures as compared to the average of the prior two-years' expense. The total R&D spend for these businesses in FY18 was $141.2 million.

The Enterprise Zone Annual Report for fiscal year 2018 is available on the OEDIT website choosecolorado.com/ez

The following table summarizes tax credits certified/issued in FY18 highlighting the business investment made in return for the state income tax credit.

Tax Credit	Business Investment	State Income Tax Credit	Key Return to the State
Investment	$1,423,811,764	$42,714,404	Increase local property tax revenue
Job Training	$20,080,674	$2,409,541	31,583 employees trained
Employer Sponsored Health Insurance	unknown	$1,150,283	1,150 employees provided qualified health plan. Reduces State health costs
New Employee	unknown	$6,358,877	4,924 net new jobs added. Increase State income tax revenue
Vacant Commercial Building Rehab	$1,696,646	$337,902	16 vacant buildings rehabilitated. Increase local property tax revenue
Research & Development	$141,273,318	$943,400	75 businesses increased R&D spending. Improves innovation ecosystem

Regional Tourism Act (RTA)

The RTA program consists of five tourism projects, two of which are outside the Denver Metro area. All of these projects were approved by the Colorado Economic Development Commission with a forecast by a third-party analyst that the project would increase Net New Out-of-state visitors to Colorado. The RTA projects are funded by diverting a portion of the incremental state sales tax revenue produced in the RTA zone back to the project. Projects were eligible for this diversion upon EDC approval, and will continue to receive this revenue for approximately 30 years. See details in the table below.

Overview of RTA Projects

Project Name	Date Approved by EDC	RTA Award ($ Mill.)	TIF Revenue Diverted to Project ($)	County	Project Status
Pueblo Heritage of Heroes / PBR	5/18/2012	$35.7	$8,365,426	Pueblo	Under Construction
Aurora Gaylord Hotel & Conf. Center	5/18/2012	$81.4	$0	Adams	Construction complete, ribbon cutting ceremony scheduled for 12/18/18.
CO Springs City for Champions	12/16/2013	$120.5	$9,289,091	El Paso	Under Construction
Go NoCO Family Resort & Water Parks	11/12/2015	$86.1	$304,369	Larimer	Project has not yet started construction
Denver National Western Center	11/12/2015	$121.5	$150,214	Denver	Under Construction
Total		$445.2	$18,109,099		

The goal of the RTA program is to support the creation of unique and extraordinary tourism facilities in Colorado (see descriptions below), that would not otherwise be funded and that will drive net new visitors and spending into Colorado. This will create returns to many different categories of stakeholders from employees of these facilities to local governments to the tourism industry overall in Colorado. From the State of Colorado's perspective, the ROI provided by the RTA Projects would include the following categories:

- State Income Tax and state sales tax revenue from people employed in building and operating these projects (see table below for the most recent reported employment numbers associated with these projects).
- Additional ROI will come from net new visitors to the state who spend money outside the RTA zones and generate net new sales tax revenue.
- Additional ROI will come from net new visitors in the state who spend money in the RTA zones after the RTA awards expire in approximately 30 years.

Note based on the forecasts and analysis provided by the independent third party analyst hired by OSPB and the applicants during the application process, the EDC set the RTA awards such that only net new revenue created by the projects in the RTA zones is diverted to the projects. Thus no pre-existing state funds will be used to finance these projects, which inherently promotes a positive ROI for this program.

Project Name	Estimated Permanent Jobs	Estimated Construction Jobs	Estimated Total Jobs
Pueblo Heritage of Heroes	2	35	37
Aurora Gaylord Hotel & Conference Center	127	1,399	1,526
Colorado Springs City for Champions	3	248	251
Go NoCO Family Resort & Water Parks	0	0	0
Denver National Western Center	7	21	28
Total	139	1,703	1,842

RTA Project Descriptions

The RTA funded Pueblo Heritage of Heroes project will include the Professional Bull Riders University, an expansion of the Pueblo Convention Center with additional parking facilities at the Historic Arkansas Riverwalk Project.

The Gaylord Rockies Resort & Convention Center is a 1,501-room, 400,000 square foot hotel and conference center located near the Denver International Airport in Aurora.

The City for Champions project in Colorado Springs has four elements: US Olympic Museum and Hall of Fame, the Colorado Sports & Event Center designed to host Olympic sports, minor league soccer and college hockey, the UCCS Sports Medicine & Performance Center to support elite athlete training and wounded warriors' recovery, and a new Air Force Academy Visitor's Center.

The National Western Center Project includes new multi-purpose facilities for the National Western Stock Show. These facilities will include new livestock center and stockyards, an equestrian center with equine sports medicine facility, revitalized riverfront, as well as infrastructure and connectivity to surrounding neighborhoods.

The Go NoCO Project in Larimer County has four elements: the Stanley Film Center, the PeliGrande Resort & Windsor Conference Center, the Indoor Waterpark Resort of the Rockies, and the U.S. Whitewater Adventure Park.

15. *Has the Office been contacted by the Office of the State Auditor and given a timeframe for when the Enterprise Zone Program and the Job Growth Incentive Tax Credit Program will be reviewed pursuant to S.B. 16-203 (Evaluation Of The State's Tax Expenditures)?*

RESPONSE:

Enterprise Zone (EZ) Program: OEDIT staff met with staff of the State Auditor's Office on 10/29/2018. At this introductory meeting, the OSA staff led by Kara Trim, informed us of the review and the process that they are beginning for the EZ program per (SB 16-203). They explained that will be evaluating State tax expenditures to determine whether they are meeting their purpose, what the cost and benefits are to the State, and other objectives outlined in statute. They provided a link to their first report to give us a flavor of the process and outcome. They explained that they would be conducting the review with a goal of completing work by the end of FY 2018-19. We provided program background and reports and data that are posted publicly.

Job Growth Incentive Tax Credit (JGITC) Program: OEDIT staff has not met with the State Auditor's Office nor was given a timeframe for when the JGITC program will be reviewed pursuant to S.B. 16-203.

16. *What is the return on investment for film incentives in Colorado?*

RESPONSE: As of June 30, 2018, just over $16 million was paid to productions (since the inception of the Colorado 20% performance-based rebate in FY 2012-13).

The Colorado Office of Film, Television and Media (COFTM) calculates that productions brought to Colorado under the incentive generated $111.2 million in economic impact to 55 counties in Colorado and created over 3,673 cast and crew positions.

Colorado Film Incentive Program 2013-18	
Number of Completed Projects	63
Incentives Paid	$16.1M
Economic Impact	
Total Production Spend	$111.2M[1]
Tax Revenue	$13.3M[2]
Net Cost to State	$2.8M
ROI	40:1[3]

[1] Total production spend is calculated from the production company's expenditures, which are submitted to COFTM as a requirement prior to issuance of the performance-based rebate. This documentation has been reviewed by a qualified Colorado CPA and COFTM's Program Analyst.
[2] Tax Revenue reflects taxes collected throughout the state and are calculated as a result of a study conducted by the University of Colorado Leeds School of Business.
[3] The ROI reflects all incentivized projects. Please note that larger projects return a higher ROI due to COFTM's ability to negotiate an incentive which may be less than 20%. For example, COFTM was able to negotiate a 9% incentive in FY 2016-17 for incentivized project, Our Souls at Night, which featured Robert Redford and Jane Fonda, and premiered on Netflix. The film spent $17.9M in Colorado expenditures.

17. How does Colorado's funding for film incentives compare to other states?

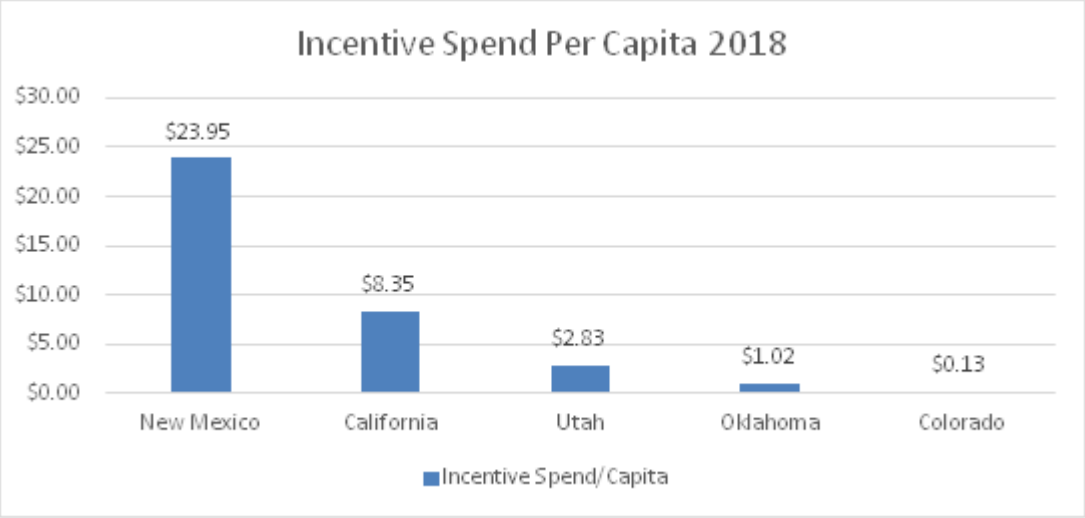
RESPONSE: Colorado's film incentive funding is vastly lower than surrounding western states in both absolute and per capita terms as described and shown in the table below.

Most notable are our neighbors to the south and west.

- New Mexico, which established its film incentive program in 2002 ($50M cap established in 2011), allocates $50M annually to their incentive program and offers a 25% tax credit for film and 30% for television series. Spend per capita is $23.95.
- Utah, which has seen an increase in production since the inception of its program in 2011, allocated $8.8M in FY2017-18 and offers a 25% tax credit on production. Spend per capita is $2.83

*Colorado's incentive spend per capita is $0.13.

Competing Western States Offering Film Incentives (2018)		
State	**Incentive**	**Allocated Fiscal Year Funds 2018**
California	20-25% tax credit	$330,000,000
New Mexico	25% Film tax credit 30% TV tax credit	$50,000,000
Utah	25% tax credit	$8,790,000
Oklahoma	35-37% rebate	$4,000,000
Colorado	20% rebate	$750,000
Source: State Film Commission Official Websites		

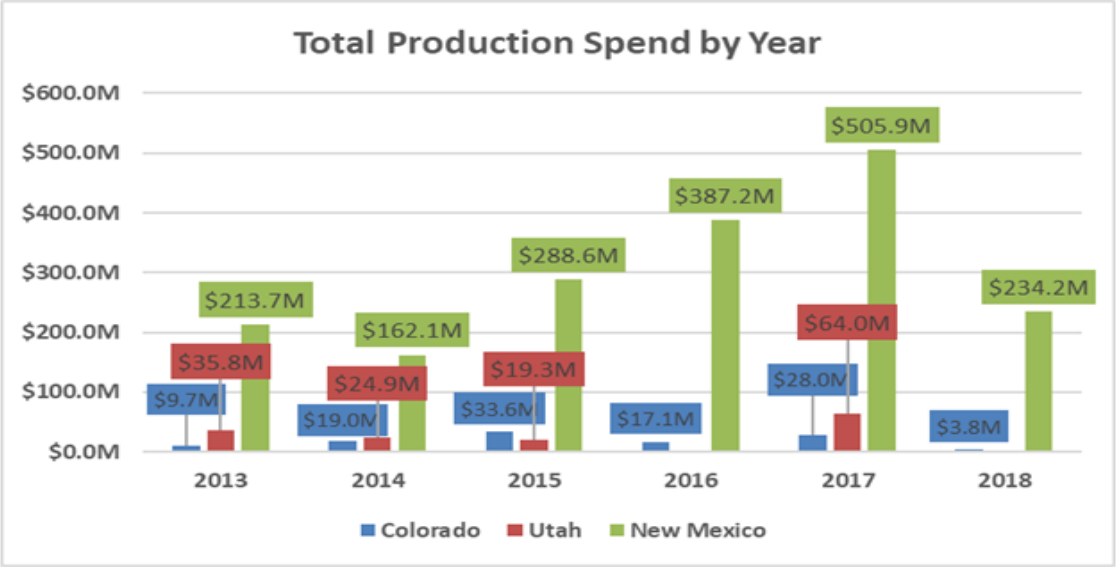


New Mexico's incentive program was established in 2002. Total production spend as recorded by the New Mexico Film Office has nearly doubled from $275M in FY 2007-08 to $506M in FY2016-17.

During this same year (FY 2016-17), New Mexico Film Office stated the number of productions spending over $1M hit an all-time high of 61 productions.

In 2017, Utah reported $64M total production spend with more than 2,400 Utahans working on set and continues to draw interest and investment from entertainment behemoths like Disney Studios and HBO.

These numbers compare to Colorado's FY 2016-17 total production spend of $28M and FY 2017-18 total production spend of $3.8M.



**Data for Utah's total production spend for FY 2015-16 and FY2017-18 is not currently available.*

18. *Have states that provide more money than Colorado for film incentives achieved greater economic development in the film industry (or tangential industries)?*

RESPONSE: Yes, states that provide larger incentives to the film industry achieve greater economic development opportunities in the film industry, both through total production spend and secondary spend not connected to direct production expenditures.

The New Mexico Film Office reported more than half a billion dollars spent on the local economy through total production spend (film production spend eligible for the state's tax credit). Secondary spend is not reflected in the total production spend numbers.

A few examples of tangential spend as reported by New Mexico's Film Commissioner, Nick Maniatis:

(1) Three actors on Netflix series, "Longmire" bought homes in Santa Fe.
(2) A New Mexico producer took friends to Madrid, NM where they purchased thousands of dollars' worth of art.
(3) Film-related tourism such as the Breaking Bad RV Tour ("Breaking Bad," the 5-season television series filmed in NM).

Utah's Film Office is reporting a film boom with permits issued to film crews nearly doubling from 2016 to 2017. Additionally, the State's entire film incentive budget ($8.8M) was tapped just a few months into the 2017-18 fiscal year.

Utah's Film Commission Director Virginia Pearce stated "even though the state has a relatively modest program compared to places like New Mexico, which spends about $50 million a year to attract filmmakers, or Vancouver, British Columbia, which has a film incentive budget that registers in hundreds of millions, the economic impacts have been robust."

19. *What is the return on investment for the Advanced Industries Accelerator programs? Does the Office currently have (or regularly maintain) a reserve balance in the Advanced Industries Acceleration Fund?*

RESPONSE: Advanced industries (AIs) are key drivers of the U.S. and Colorado economies. Comprised of engineering and R&D-intensive companies, they deliver products and services in a wide range of markets, from aerospace to robotics to medical devices. Colorado's AIs include aerospace, advanced manufacturing, bioscience, electronics, energy and natural resources (including cleantech), infrastructure engineering, and technology and information. Together, they account for nearly 30 percent of the state's total wage earnings, around 30 percent of total sales revenue, and almost 35 percent of the state's total exports.

To ensure the progression of this vital aspect of Colorado's economy, the AI Accelerator Program was created in 2013. This initiative promotes growth and sustainability in these industries by driving innovation, commercialization, and public-private partnerships, while also increasing access to early-stage capital and creating a strong infrastructure that enhances the state's capacity to be globally competitive.

OEDIT offers four grants and two global business programs to support AI companies in their various phases of growth. The grants include Proof of Concept, Early-Stage Capital and Retention, Infrastructure Funding, and AI Export. The programs include a network of Global Consultants and export training to build export readiness and help connect Colorado AI companies to global opportunities

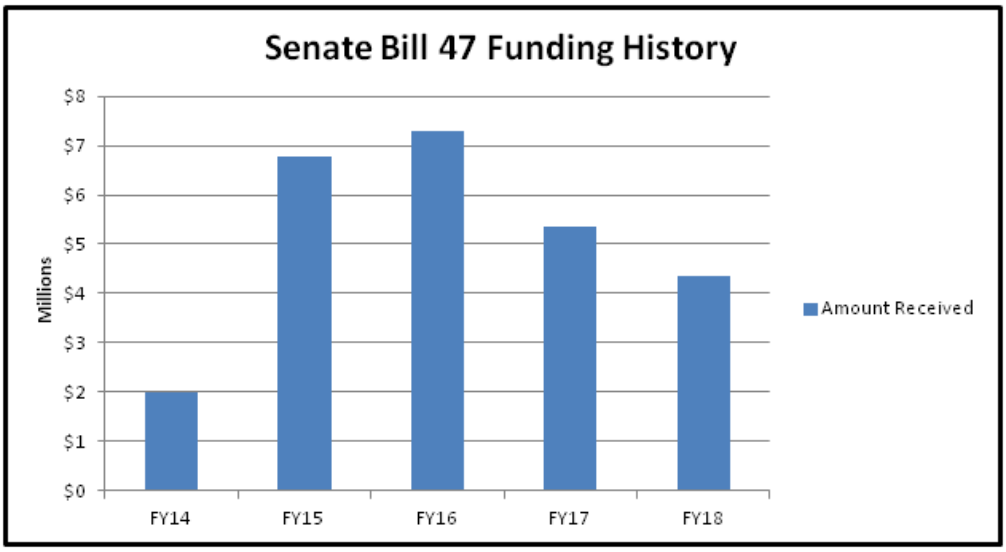
The chart below shows returns realized since the inception of the grant and those that continue to accrue as the technologies become closer to and actually enter the market-place.

Status	Program	# of Awards	$ Awarded	$ Spent to date	Jobs Created	Jobs Retained	New Co Created	Follow- On Capital	IP	Projected Annual Revenue
	Proof of Concept	196	$13,252,394	$12,742,660	148	188	27	$49,019,873	71	$11,138,000
Active Grants	**Early Stage Capital and Retention**	139	$25,502,577	$18,953,053	406	509	N/A	$141,489,019	263	$56,166,480
	Infrastructure	13	$11,957,473	$9,381,063	219	187	5	$177,570,160	27	$15,263,416
Totals		**348**	**$50,712,444**	**$41,076,776**	**773**	**884**	**32**	**$368,079,052**	**361**	**$82,567,896**

In addition to this data, the Brooking Institute recently did a study to highlight the model program started in Colorado for other states to establish an Advanced Industry Program model. We have recently had conversations with the State of Oregon and Senator Shackelford in Indiana about program model and design. The Brookings Institute document can be found here.

SB47 Funding History

During the recent JBC Governor's Office hearing questions came up about the amount of funding provided to the AI program from SB 47. To provide context the following table shows recent fiscal year's funding from this mechanism.



FY14: $2,020,221
FY15: $6,774,855.22
FY16: $7,280,138.22
FY17: $5,341,654.15
FY18: $4,362,210.59

The Advanced Industry Program carries forward a temporary balance each fiscal year to account for the lag in funding from SB47 that is reported each March by the Department of Revenue report to allow for the fall funding cycle that begins at the start of each fiscal year. This practice has been implemented since the loss of the $5 million of general fund in 2015.

GENERAL QUESTIONS

20. *Please provide an overview of the initiatives conducted by the Colorado Outdoor Recreation Industry Office and how these initiatives are benefiting the state economically.*

RESPONSE:

<u>Division Overview: Colorado Outdoor Recreation Industry Office</u>
Governor Hickenlooper launched the Colorado Outdoor Recreation Industry Office (OREC) in 2015. OREC is one of several offices in the nation that provides a central point of contact, advocacy and resources at the state level for the diverse constituents, businesses, trade associations and communities that rely on the continued health of the outdoor recreation industry. The OREC Office mission is simple: to champion our industry and communities to come to life through Colorado's great outdoors.

Colorado Outdoor Recreation Office Initiatives:

Economic Development:

- The Office worked to secure a highly sought after group of companies that have chosen to move to Colorado and have created over 905 jobs such as Brooklyn Boulders, Bonsai Design, Gaia, Helix, Strava, and Zingfit.

- In 2019, VF Corporation is moving their new headquarters to Denver and creating over 1100 jobs in Colorado with signature brand's HQs like; The North Face, Eagle Creek, Altra, Icebreaker and Jansport. VF Corporation will be the second largest employer in Colorado when the move is complete.
- **Outdoor Retailer Tradeshow**: This tradeshow is the premier trade event and community gathering for the outdoor industry. The event hosts nearly 30,000 industry experts at the newly merged Outdoor Retailer + Snow Show, the largest outdoor and winter sports industry gathering in North America. The shows bring together thousands of leaders in the outdoor recreation industry, representing some of the most iconic and emerging brands, as well as the latest innovations and ideas, while also providing an opportunity for the industry to gather, discuss important policy initiatives and share innovations.

Outdoor Rx Collaborative: To better enhance and emphasize the connection between outdoor use and health, OREC created its first ever health council to support the creation of a report outlining outdoor recreation and health programming. Moving forward OREC will serve as a member of the council as it seeks housing under a different organization/agency.

Colorado Outdoor Industry Leadership Summit (COILS) and regional "COILSx" coalitions: COILS is an annual convening of statewide outdoor recreation leaders to discuss successes and issues facing the outdoor recreation economy. Regional COILSx coalitions are regional coalitions that work on issue-areas specific to their designated region in the state. COILSx coalitions are asked to convene regional conferences annually.

ISPO Munich, Colorado Incubator Booth: ISPO Munich is one of the largest international outdoor recreation tradeshows. For the past few years, OREC has supported up to five Colorado outdoor recreation companies who seek to enter into the international tradeshow sphere. Support has consisted of travel and tradeshow/booth space financial support as well as mentorship, networking, and workshops.

Blueprint 2.0 *Grow Your Outdoor Industry* partnership with CU Boulder MENV program: OREC has supported OEDIT's Blueprint 2.0 program by partnering with CU Boulder to provide dedicated student teams for the *Grow Your Outdoor Industry* initiative. In 2018, this initiative will be supported by students from CU Boulder's Masters in the Environment program. Students will have the opportunity in the fall/winter to work with selected communities to develop a strategic plan to enhance the community's outdoor recreation assets and economy.

Education and Workforce Development: The office has worked closely with Western State, CU, CSU and CMC to enhance the outdoor recreation talent pipeline in Colorado. This includes outdoor recreation MBAs, vocational training programs, and outdoor recreation and tourism undergraduate and graduate degrees.

Confluence Summit: This is a summit established by the State of Colorado with participation of eight states: Colorado, Montana, North Carolina, Oregon, Utah, Vermont, Washington and Wyoming. The participating states all have an office, director or task force dedicated to the well-being of the outdoor recreation industry and to greater public access to outdoor experiences. The Summit's goal is to foster a shared vision for the future of the

outdoors, to share best practices and, ideally, create a set of cross-state policy principles for maximizing the sector's many benefits.

21. *Please provide an overview of the initiatives conducted by the Colorado Tourism Office and how these initiatives are benefiting the state economically.*

RESPONSE:

Economic impact: In 2017 Colorado travelers spent an all-time high $20.9 billion and generated $1.28 billion in state and local taxes, while directly supporting 171,000 jobs. Tourism is a leading industry in Colorado, with hospitality services providing the second largest and one of the fastest growing sources of jobs in the state. Travelers account for the lion's share of customers for outdoor recreation experiences, resorts and attractions, while driving business for retail, restaurant and other enterprises as well.

Colorado Tourism Roadmap: CTO created the Colorado Tourism Roadmap, a three- to five-year strategic plan not just for the Colorado Tourism Office, but for the Colorado tourism industry. Adopted by the Colorado Tourism Board in March 2017, all CTO accomplishments and initiatives since then tie back to the strategic objective of the Roadmap to build the tourism industry's competitive advantage.

'Come to Life': Based on third-party review by SMARInsights, CTO's "Come To Life" marketing campaign ranks among the top 10 percent nationally for both ROI and for effectiveness in inspiring consumers. Since 2016, the CTO has shaped its campaign strategy to drive increased traveler spending, rather than attract higher numbers of travelers. The CTO is the only entity marketing Colorado as a destination, and its winter and spring/summer campaigns directly account for more than a sixth of the traffic on destination websites across Colorado. Quantcast consistently ranks the CTO's website, Colorado.com, among the top three performing state tourism websites in the U.S.

Rural Economic Development: CTO's FY19 appropriation rose to $20.1 million with addition of $500K to promote rural economic development through tourism, expanding training, and promotional resources and grant support to help smaller communities generate tourism as a key component of their economic development strategy. Key to this work was creation of the Colorado Rural Academy for Tourism (CRAFT), offering a collection of competitive training programs, workshops, online resources and small grants to support small communities and rural partners in maximizing their tourism potential.

Research-Based International Strategy: In 2018, CTO developed a research-based international strategy to focus resources on highest-potential markets, while retaining support for overseas markets with long-time investment and nonstop flights. CTO represents destinations across the state, including Denver, by maintaining international representatives in key target markets, including the growth markets of the U.K., Australia and China, as well as high-value investment markets with nonstop flights to Germany, France, Japan and Canada. The CTO provides training and opportunities for Colorado destinations to connect with international trade and media by securing exhibit space at major international trade shows, including ITB in Berlin, World Travel Market in London and IPW in the U.S.

Top Chef: CTO secured Top Chef Season 15 for Colorado (Dec 2017 to March 2018) by recruiting $250K in cash sponsorships from key destinations -- Denver, Telluride and

Boulder -- as well as $200K in in-kind contributions from Sage Hospitality and collaborating with the Colorado Film Office to provide a $1 million film incentive. (Kentucky subsequently paid $3 million in cash to secure Season 16.) SMARInsights showed Top Chef added about 3 percent lift in awareness of CTO's annual marketing campaign.

Responsible tourism: In response to concerns about impacts of travelers on Colorado's natural and cultural resources, CTO is at the forefront of efforts nationally to encourage visitors to travel responsibly, engaging in an innovative relationship with the Leave No Trace Center for Outdoor Ethics to create the Care for Colorado Principles. CTO and Leave No Trace are now developing strategic partnerships with three (to date) statewide organizations -- the Colorado Hotel and Lodging Association, the Colorado Dude and Guest Ranch Association and the Colorado River Outfitters -- to share the Care for Colorado messaging with their constituencies.

Colorado Tourism Leadership Journey: CTO launched the Colorado Tourism Leadership Journey in fall 2017, creating a tuition-based, yearlong executive training program to develop leadership potential and provide employers with a ready-made solution for rewarding, retaining and supporting the growth of top talent.

Colorado Governor's Tourism Conference: CTO each year hosts a major educational and networking event for the statewide tourism industry, bringing top keynote speakers as well as a collection of learning labs and breakout sessions on five tracks -- marketing and PR, technology and trends, industry issues, small and rural communities and international promotion. The conference also provides multiple networking opportunities for information sharing as well as an annual awards program to recognize industry accomplishment. Conference proceeds help fund competitive scholarships for Colorado university students pursuing a tourism-related degree.

Colorado Travel Regions: CTO in September completed a highly inclusive, yearlong process to develop and brand new Colorado travel regions to support industry collaboration, drive consumer awareness of unique travel opportunities across the state and provide a focus for the development of new traveler experiences.

Dispersion of visitors: Created the Colorado Field Guide, an online collection of 90-plus itineraries aimed at dispersing visitors by inspiring them (and Colorado residents) to explore less-traveled destinations and off-peak seasons around the state. The Field Guide is loaded with places to stay and eat, things to do and traveler tips, including suggestions on "voluntourism" and ways to give to causes Coloradans care about.

Western Hospitality: Developing a "Western Hospitality" initiative to turn service counters across Colorado into concierge desks by providing online statewide customer service training as well as insight into local, regional and statewide Colorado travel opportunities. The training would be made available to front-line hospitality workers in Colorado hotels, attractions and retail establishments as well as welcome center volunteers and travel trade, both domestic and international.

Colorado Welcome Centers: CTO has set new standards for operation of Colorado Welcome Centers to guide ongoing improvement, while incorporating new fun and inspirational elements encouraging travelers to experience Colorado history and natural treasures, making centers bike-friendly and positioning them to inspire visitors to travel

sustainably. A recent study showed the 10 volunteer-operated Colorado Welcome Centers greet about a million travelers annually, generating about $25 million in spending, mainly by inspiring them to visit more attractions, for a return on investment of $31.50 for every $1 of state funding. The study also pointed to opportunities to modernize the centers for even greater impact.

22. *What is the Office doing to promote business development in with the defense industry?*

RESPONSE: OEDIT recognizes that the defense industry sector in Colorado is a key industry (Defense and Homeland Security) that significantly supports our economy by generating over 7% of the State's total economy with over a $36B statewide economic impact (Summit Economics Aug 2018). OEDIT aggressively supports and promotes the highly-valued defense industry with a dedicated business development specialist who has worked extensively with defense industry for many years, Maj Gen Jay Lindell, USAF, Ret. Jay is dedicated to defense industry business development in all regions of the State by working closely with defense business, government agencies, research and development institutions, economic development organizations, and trade associations to promote and grow defense industry. OEDIT's engagement has led to aerospace and defense industry 2017 employment growth in aerospace at over 6% and nearly 5% revenue growth (Metro Denver EDC) and Colorado's 2017 ranking as the #1 state for aerospace direct employment per capita.

OEDIT is also a member and is actively engaged with many organizations that globally market and develop policy to support the aerospace and defense industry in Colorado. Organizations include the Colorado Space Coalition, Colorado Space Business Roundtable, Aurora Defense Council, Colorado Springs Military Affairs Committee, CU Boulder Aerospace and Defense Consortium, and the State Legislative Aerospace and Defense Caucus. OEDIT also meets regularly with Congressional staff and members to "tell the Colorado story" for defense industry that supplies great paying jobs and is a catalyst for technology and innovation across all advanced industry sectors in Colorado. Recently (Sep 2018), OEDIT met directly with senior Pentagon leaders to include the Secretary of the Air Force, Chief of Staff of the Air Force, and Deputy Assistant Secretary of Defense for Space Policy to assure senior defense leadership that "Colorado is all in" to support national security space and defense industry development in Colorado.

Another key program that OEDIT funding has significantly propelled defense industry business development is the Advanced Industry Accelerator (AIA) Grant Program. The program has deployed over $50 million to small and medium sized companies in 7 industry verticals to include aerospace and defense industry and has leveraged close to $400 million into the state through federal funding, venture capital, and angel Investment. The OEDIT business development program has enabled many startup and second stage development defense industry small businesses to grow and prosper in Colorado.

The PTAC program increases employment and promotes economic development throughout the state of Colorado by helping businesses obtain Federal, state, and local level government contracts. The state's $200,000 annually leverages another $600,000 in Federal dollars from DOD and provides a key partnership with the State of Colorado and the Department of Defense. In FY2018, the Colorado PTAC center served 795 businesses and provided 2348 consulting hours to these businesses. The organization also participated or

sponsored 189 events in Colorado. These milestones are well above the statutory requirements for the program. The PTAC bill is set to expire not this legislative session, but next session.

23. *How does the Minority Business Office measure the success of the Advance Colorado Procurement Expo? How has the Office performed in meeting these success measures?*

RESPONSE: The Colorado Minority Business Office tracks the impact of the EXPO throughout the year and follow-up consulting services by measuring jobs created, contracts obtained, capital formation and revenue increase for the businesses it serves. The results are collected and measured throughout the year via Center IC, a client relationship management software. Individual notes and impact with supporting documents are created every time we engage a small business client. Traditionally the EXPO creates relationships with government agencies for contracting opportunities, in addition, in 2018 we expanded to corporations with supplier diversity efforts towards small, minority, women, and veteran-owned businesses.
The economic impact discussed above and attendance has increased significantly from the year 2015, from 300 to 750 EXPO attendees and participants. The summary from previous periods is listed below. The final numbers for the period ending on 12/31/2018 are not available yet.

	Started Business Count	Jobs Created Sum	Customer Count	MBE Certified Count	Total Contract Amt Sum	Jobs Retained Sum	Loan Obtained Amt. $ Sum	Sales Increase Amount $ Sum	Capital Formation Sum
12/31/2015 -12/31/2016	27	119	85		186,965	155	367,034	2,021,037	1,513,642
12/31/2016- 12/31/2017	28	345	158	2	5,755,729	383	4,215,121	10,012,734	13,798,270

OFFICE OF STATE PLANNING AND BUDGETING

PAY FOR SUCCESS PROGRAM

24. *Please provide an overview of the Office's Pay for Success Program initiated via the Joint Budget Committee-sponsored H.B. 18-1323 (Pay For Success Contracts Pilot Program Funding). Please include a status update on each of the projects, a summary of the funding structure for the projects, and the evaluation process planned for determining if the projects are successful.*

RESPONSE: OSPB has worked with many critical stakeholders for over a year to structure and launch three Pay for Success Projects. Half of the funds provided through HB 18-1323 are set aside to cover possible future "success payments," tied to measurable long-term outcomes for Colorado at-risk youth. The three projects, selected from 61 proposals from across Colorado, submitted through OSPB's 2017 Call for Innovation in 2017, are expected

to serve more than 1,100 Colorado youth and families. They are the first State-funded Pay for Success projects in Colorado history.

The first project, a school-based intervention for youth in foster care in Jefferson County, has launched. OSPB signed a Pay for Success Contract with Jefferson County Public Schools in July. This project aims to close an achievement gap between foster youth and non-foster youth. It funds school-based specialists who meet weekly with teens and pre-teens in foster care, minimizing disruptions associated with school and placement changes wherever possible. The Community First Foundation, based in Jefferson County, is providing $800,000 in Pay for Success "investment" capital, half the project cost, and will be repaid (plus a low interest rate of two percent per year) via "Success Payments" from the State if the project works. Success Payments are triggered if an evaluation shows students served have better attendance, higher rates of course completion, are suspended less often, or are more "on track" to graduate high school on time. Jeffco Schools has already hired staff, and is currently enrolling students.

The remaining two projects are scheduled to launch in early 2019. OSPB expects the two remaining Pay for Success contracts to be signed by the start of January. One project, with the Denver Collaborative Partnership, funds preventive services for runaway teens and pre-teens. This project will refer runaway youth and their families to evidence-based services in the home and community. A second project provides Multi-Systemic Therapy (MST) to underserved regions of Colorado. MST is an intensive family- and community-based intervention for at-risk youth that has been repeatedly shown to reduce criminal justice involvement. This project will place teams of therapists in Pueblo, Greeley, and Grand Junction, and Adams and Broomfield counties. Two final sites will be selected soon, with an emphasis on serving rural and underserved areas of the State to the greatest possible extent.

OSPB has partnered with the Northern Trust Corporation, Gary Community Investments at the Piton Foundation, and the Colorado Health Access Fund at the Denver Foundation to raise $2.2 million in Pay for Success investment capital over the next three years, to cover half the cost of these two remaining projects. These investors will be repaid later (plus at most 2% annual returns) if rigorous evaluations show fewer youth served by the projects are involved in the justice system or removed from their homes

An additional $800,000 in grants from the Arnold Foundation and Annie E. Casey Foundation funds three rigorous evaluations of the three projects, conducted by the Colorado Evaluation and Action Lab, an independent evaluator at the University of Denver. Two randomized control trials will evaluate the Jefferson County Schools and Denver runaway projects. A "propensity score" study will evaluate the Multi-Systemic Therapy project. For all three projects, the evaluation must show that a "treatment group" of youth receiving services through the project have improved long-term outcomes, relative to a similar comparison group of youth not enrolled in the projects.

COLORADO ENERGY OFFICE

ELECTRIC VEHICLES

25. *How do electric vehicles contribute to the state's transportation funding?*

RESPONSE: In 2013, the General Assembly sought to address the potential for future lost gas tax revenue from alternative fuel vehicle adoption. For compressed natural gas (CNG), liquified natural gas (LNG), and liquefied petroleum gas (LPG), the legislature imposed an excise tax based on the energy content of the fuel. In theory, if two vehicles run on different fuels and are otherwise identical, the vehicle that runs on the fuel with the higher energy content should be able to drive a greater distance on a gallon of fuel. Vehicles that drive a greater distance on a gallon of fuel have a higher usage and impact on roads. By 2019, the excise taxes for those alternative fuels will be equivalent to diesel on an energy content basis.

Unlike the other alternative fuels affected by HB 13-1110, the $30 Highway Users Tax Fund (HUTF) fee on EVs was not calculated on an energy content basis. Instead, the HUTF fee was calculated based on an estimate of the annual gasoline tax revenue that was lost because the consumer charged with electricity rather than fueled with gasoline. The revenue equivalence was estimated using 12,000 miles driven annually and the miles per gallon gasoline equivalent (MPGe) for EVs. At the time HB 13-1110 was under consideration, two widely available EVs were the Nissan Leaf and the Chevrolet Volt. The MPGe for the 2012 Nissan Leaf is 99, and the 2012 Chevrolet Volt has a 93 MPGe when driving in electric mode without using the backup gasoline motor. Given these assumptions, the average annual lost gasoline tax revenue on an MPGe basis was $26.67 for a 2012 Nissan Leaf and $28.39 for a 2012 Chevrolet Volt.

The remaining $20 (of the total $50 paid at the time of registration by EV owners) is transferred to the Electric Vehicle Grant Fund (24-38.5-103 C.R.S.) administered by CEO to provide competitive grants under 24-38.5-103 C.R.S. to local governments, state agencies, public universities, public transit agencies, private nonprofit or for-profit corporations, landlords of multifamily apartment buildings, and homeowner associations to install electric charging stations. The intent of the statute is to have the registered EV owners contribute to funding Colorado's network of EV chargers.

Current EV market penetration is only 1.06% of total registered vehicles in Colorado. However, EVs are growing as a percent of new vehicle sales. In 2013, EVs were 0.16% of total sales, but by the end of FY2017-18 that grew to 2%. As the EV market share grows and the General Assembly considers options for changes to alternative fuel vehicle HUTF contributions, any policy based on fixed fees should maintain a policy where EV fees are not disproportionately higher compared to gas tax contributions from other efficient gasoline-fueled light duty vehicles.

26. *What is the Office's long-term plan for the additional vehicle registration fees paid by electric vehicle owners that are transmitted to the Electric Vehicle Grant Fund?*

RESPONSE: CEO regularly monitors market trends in the energy sector to identify if and when services are no longer required to meet market demand or are sufficiently being

addressed by the private sector. With respect to the EV market, one of the principle barriers to adoption of EVs is lack of charging infrastructure. This includes community-based charging at workplaces, commercial and governmental facilities, and multi-family housing as well as high-speed charging along Colorado's highways and interstates. In the short term, CEO will use the EV Fund to stimulate installation of charging infrastructure in places the private sector is not actively making investments. As the EV market grows, high levels of utilization will help ensure a positive business case and ultimately reduce the need for state support. When this happens, the State should reconsider the role of the EV Fund in providing grants for charging stations. Due to the still fragmentary network of public EV charging infrastructure, the $20 EV grant fund allocation should continue to be collected until there is a fully functioning statewide network.

27. *How many more charging stations will be built if the General Assembly approves the Office's request to increase cash funds spending authority from the Electric Vehicle Grant Fund from $313,000 to $1,036,204? Where will these charging stations be located? Is the Office targeting specific areas to build out charging station capacity?*

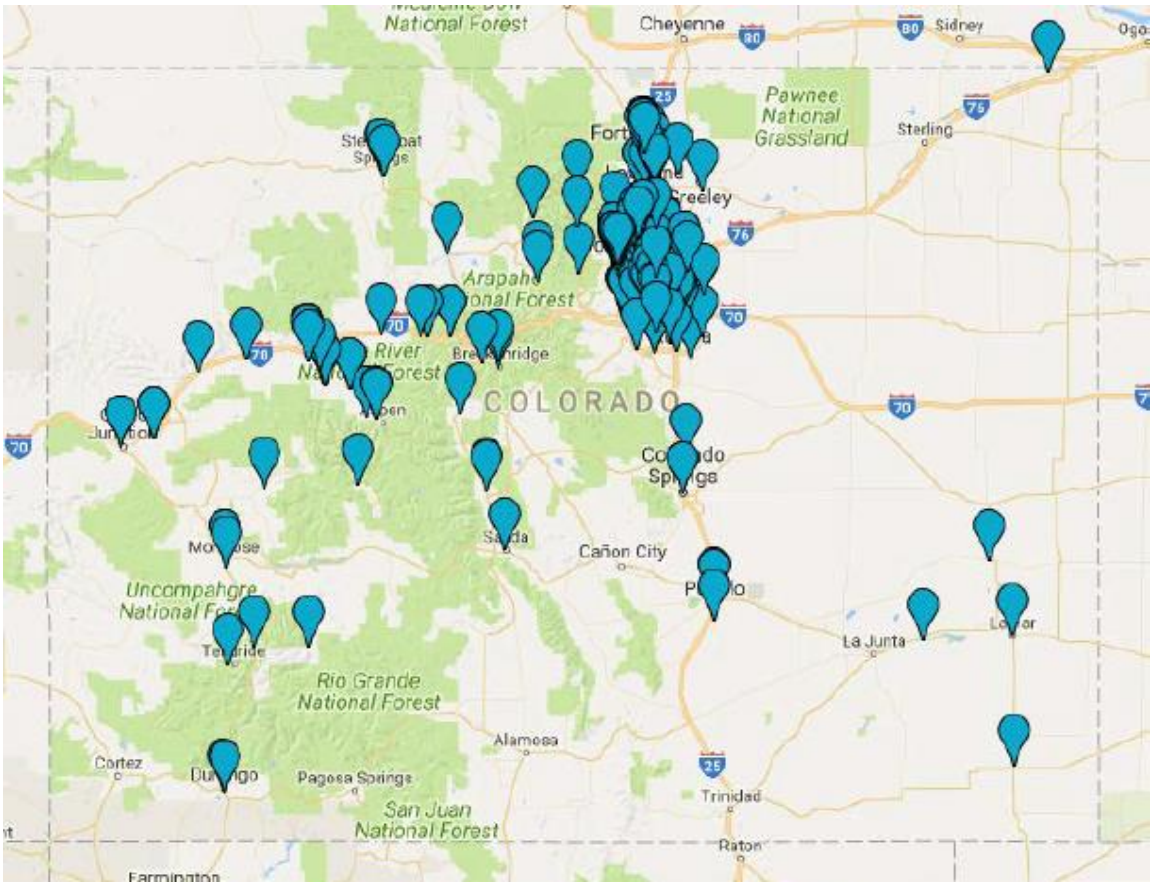
RESPONSE: Since 2013, the Charge Ahead Colorado program has provided competitive grants for community-based charging stations for local governments, state agencies, public universities, public transit agencies, private nonprofit or for-profit corporations, landlords of multifamily apartment buildings, and homeowner associations across the state. CEO manages this program in partnership with the Regional Air Quality Council (RAQC), offering three funding rounds each year. RAQC serves the 7-county metro area while CEO serves all other counties across Colorado. This funding is critical to ensuring that all Coloradans have access to a reliable network of charging stations in their own communities. To date, the EV Fund has provided 73 grants and demand for the program continues to grow each year.

In each funding round, CEO has received far more applications for funding through Charge Ahead Colorado than is available. In FY 2017-18, CEO received $793,455 in funding requests. In the first grant round for FY 2018-2019, CEO received applications for $573,000, 72 percent of what was received in 3 rounds the previous year. Increasing spending authority would help ensure that as the number of EVs in the state grows, so too does the number of charging stations. Charge Ahead Colorado currently offers grants for up to 80 percent of the cost of a charging station up to the following set maximums: Level II stations are eligible for $9,000 while DC fast-charging stations (DCFC) are eligible for $30,000. The exact number of new stations will vary depending on the number of Level II vs DCFC requested and awarded but we could reasonably expect the number of stations awarded to triple when funding grows to the level projected in our proposal.

In terms of where stations are located, since Charge Ahead Colorado is a competitive grant program, rather than determine ahead of time where stations are installed, CEO and RAQC make awards based on the needs of the market. CEO and RAQC do prioritize workplace charging and multi-family housing as directed by the EV Plan as employees with access to workplace charging are more likely to purchase an EV than those without, and multi-family housing has traditionally faced unique barriers for installation of charging stations. Since a quarter of Coloradans live in multi-family housing, providing access to charging is critical at these facilities as the majority of charging is done at home.

CEO does outreach across the state through regional organizations to identify needs and opportunities for charging infrastructure (as well as raising awareness about EVs and creating opportunities for increased adoption). Those organizations refer communities and organizations to CEO's grant programs and help ensure funding opportunities meet community needs. Ultimately, stations will be installed all over the state and in response to grant applications through Charge Ahead Colorado for grant funding, helping to ensure that stations are placed where they will support current and future EV owners.

The map below shows the location of stations that have received awards through Charge Ahead Colorado:



For more information on the State's plan to build out EV corridors and accelerate EV adoption beyond the Charge Ahead Colorado program, please see the Colorado EV Plan at https://www.colorado.gov/governor/sites/default/files/colorado_electric_vehicle_plan_-_january_2018.pdf

28. *Does the Office believe that electric vehicle market growth projections from the U.S. Department of Energy's Energy Information Administration (EIA) are accurate? Did the Office contemplate whether or not EIA's projections may understate future market growth and what impact that would have on the revenue credited to the Electric Vehicle Grant Fund?*

RESPONSE: CEO evaluates a variety of national market projections for EV adoption based on technology and manufacturing trends. These are all forecasting estimates and CEO uses U.S. EIA because it is a consistently updated forecast. U.S. EIA provides a low, medium

and high case scenario updated every year for growth trends. CEO then takes the EIA regional scenarios and normalizes them for Colorado's vehicle sales market and actual annual EV sales. Historically, the state falls between the low and medium growth case scenarios, but exponential growth is expected, which is why the Colorado EV Plan has a goal to achieve 940,000 EVs in Colorado by 2030.

Figure 5: Revenue Projections	Low EIA Projection - EV Stock	Medium EIA Projection - EV Stock	High EIA Projection - EV Stock	Low EIA Projection - EV Fund	Medium EIA Projection - EV Fund	High EIA Projection - EV Fund	CEO EV Stock Goal – Revenue Projection
FY 2014-2015	3,241	3,238	8,477	$64,810	$64,760	$169,531	$ 93,960*
FY 2015-2016	5,009	14,848	22,449	$100,178	$296,954	$448,975	$138,540*
FY 2016-2017	7,801	33,168	47,112	$156,022	$663,363	$ 942,236	$208,740*
FY2017-2018	12,178	48,997	83,390	$243,554	$979,934	$1,667,804	$288,400*
FY2018-2019	16,478	65,495	126,254	$329,554	$1,309,900	$2,525,076	$819,727
FY2019-2020	21,518	82,103	176,206	$430,355	$1,642,054	$3,524,113	**$1,036,204**
FY2020-2021	29,758	98,356	232,000	$595,165	$1,967,116	$4,639,998	$1,281,141
FY2021-2022	41,548	114,359	291,709	$830,957	$2,287,179	$5,834,186	$1,559,068

*actual values

ADDENDUM: OTHER QUESTIONS FOR WHICH SOLELY WRITTEN RESPONSES ARE REQUESTED. PLEASE RETAIN THE NUMBERING IN ORDER TO MAINTAIN CONSISTENT LABELING FOR COMMON QUESTIONS ACROSS DEPARTMENTS.

1 *Provide a list of any legislation that the Department has: (a) not implemented, or (b) partially implemented. Explain why the Department has not implemented or has only partially implemented the legislation on this list. Please explain any problems the Department is having implementing any legislation and any suggestions you have to modify legislation.*

RESPONSE: Office of the Governor (GOV), Colorado Energy Office (CEO), Office of the Lieutenant Governor (Lt. GOV), Office of State Planning and Budgeting (OSPB), and Office of Economic Development (OEDIT): These offices do not have any legislation that has not been implemented or is partially implemented.

RESPONSE (OIT): The following is legislation that pertains to the specific question posed. It is not a complete list of legislation that impacted OIT

- **HB 18-1421 Procurement Process for Major IT Information Technology Projects:** was codified in Colorado Revised Statute (CRS) 24-37.5-102 and 105 has two actions:
    1. Establishment of policies and procedures regarding a vendor selection standard to be used in selecting a vendor for any major IT project classified as such by the Office. This Policy has been drafted and is on track to be finalized on December 1st.
    2. A qualified, independent third-party consulting firm will review and evaluate the procurement process for the Human Resources Information System, also known as HRWorks and submit a report on or before June 30, 2019 to the Legislative Audit Committee, JBC, JTC and OIT. The consulting firm BerryDunn was selected and has been working since August. Per the legislation, this piece is to be done or before June 30, 2019.
- **HB 18-1022 Department of Revenue (DOR) issue Sales Tax Request for Information:** was codified in CRS 39-26-802.5. This legislation is in regards to an electronic sales and use tax simplification system that state/local could choose to use. OIT will coordinate with DOR as they move through the RFI and any potential procurement actions as deemed necessary by the Task Force Committee created by CRS 39-26-802.
- **SB 18-266 Controlling Medicaid Costs:** was codified in CRS 25.5-4-422 for the concern and controlling costs under the "Colorado Medical Assistance Act", and, in connection therewith, using data and technology, creating a hospital review program, and making and reducing an appropriation. This legislation provides that the State Department (HCPF) may procure commercial technology to implement the requirements of this legislation. OIT will coordinate with HCPF on any potential procurement actions as deemed necessary.
- **HB 18-1128 Protections for Consumer Data Privacy:** was codified in CRS 6-1-713 and 6-1-716 and provides for specific protections for consumer data privacy. As OIT manages and signs IT contracts, it is reviewing our contract language to ensure OIT is adequately covered with its vendors. OIT recently released an updated model IT Contract that all agencies should be using and will ensure the language in contracts moving forward contains the proper clauses. The contracts state that vendors must follow all laws so this would have automatically been included but OIT believed a closer review was necessary.

- **HB 18-1339 Background Checks Employees Access Federal Tax Information:** was codified in CRS 24-50-1001 and adds requirements for fingerprint-based background checks for every applicant, contractor employee or other individual who has access to Federal Tax information received from the Federal government. As OIT manages and signs IT contracts, it is reviewing contract language to ensure OIT is adequately covered with its vendors. OIT recently released an updated model IT Contract that all agencies should be using and will ensure the language in contracts moving forward contains the proper clauses. The contracts state that vendors must follow all laws so this would have automatically been included but OIT believed a closer review was necessary. In addition, OIT HR department, contracts team and security offices are working with the Colorado Bureau of Investigation.
- **HB 18-1373 Private Entities Use State Telecommunications Network:** was codified in CRS 24-37.5-501, 502, 505. No action needed until a purchase or lease any real estate, buildings, and property is contemplated, at that time, OIT must follow the budget request requirements set forth in CRS 2-3-208 and 24-37-304(1)(c.3) and subject to appropriation by the general assembly. In addition, lease revenues from public private partnerships must be credited as stated in the statute.
- **SB 18-158 School Access to Interoperable Communication Technology:** was codified in CRS 24-33.5-2101 through 2108. There is no direct action for OIT, however, the OIT Statewide Public Safety Communications System may be used to support this legislation and modifications due to system capacity expansions for school loading may be required to ensure operation of first responder communication. OIT is coordinating with the Division of Homeland Security and Emergency Management as needed.
- **SB 18-086 Cyber Coding Cryptology** was codified in CRS 24-37.5-407 and requires specific state agencies including OIT to take certain actions to protect state records containing trusted sensitive and confidential information from criminal, unauthorized, or inadvertent manipulation or theft. OIT has taken steps to ensure that it is organizationally prepared to assess the proper qualifications of hiring the FTE outlined in this legislation, as well as clearly define a workload. At this time, a "Blockchain Center of Excellence" has been established at OIT which has been circulated internally at OIT, as well as publicized at blockchain industry events. All of these efforts have had some focus on attracting internal and or external candidates. OIT has recently posted the position for hire and expects to begin the formal interview process during early December 2018. While the FTE hiring has been delayed, the overall funding provided during FY 2018-19 is expected to be fully utilized for the goals and purposes of this legislation.

2 *Does the Department have any HIGH PRIORITY OUTSTANDING recommendations as identified in the "Annual Report: Status of Outstanding Audit Recommendations" that was published by the State Auditor's Office and dated June 30, 2018 (link below)? What is the Department doing to resolve the HIGH PRIORITY OUTSTANDING recommendations? Please indicate where in the Department's budget request actions taken towards resolving HIGH PRIORITY OUTSTANDING recommendations can be found.*

http://leg.colorado.gov/audits/annual-report-status-outstanding-audit-recommendations-june-30-2018

RESPONSE: Office of the Governor (GOV), Office of the Lieutenant Governor (Lt. GOV), Office of State Planning and Budgeting (OSPB), Office of Economic Development (OEDIT),

and Colorado Energy Office (CEO) do not have any high priority outstanding recommendations from the annual report of audit recommendations not fully implemented.

RESPONSE (OIT): OIT has 13 High Priority Outstanding recommendations from the 2018 report; summary details are as follows:

- PA 1A has been partially implemented. The continuation of consolidation efforts of IT services is an on-going effort. OIT recently kicked off a project to upgrade/decommission Windows Server 2008/2003 and SQL 2008. OIT is considering extended support for 3 years for Microsoft.
- PA 1B is in progress. Holding vendors and OIT staff accountable for best practices, including industry hardening standards, in administering OIT systems is an effort that is underway, utilizing a phased approach. OIT will start onboarding vendors in January 2019.
- PA 4C has been partially implemented. The vendor is currently working on the matrix that will allow the agency to install the latest version of the configuration tool. This will result in users getting only the access that they need. This will be implemented in January 2019.
- PA 2017-004 (a): The Governor's Office of Information Technology has partially implemented the recommendations. A standard operating procedure (SOP) was created to outline the process to grant access to TopSecret, and a basic review was completed of the security configurations, however this hasn't yet been reviewed with the agency due to competing priorities involving critical updates to the application, ongoing project work for the replacement system and ongoing maintenance support work related to other existing applications. OIT anticipates that the SOP will be reviewed and signed off by the agency by March 2019.
- PA 2017-004 (a & b) Recommendations (2) for security improvements for Top Secret, a mainframe security application have been partially implemented. A standard operating procedure (SOP) was created to outline the process to grant access to TopSecret, which will be finalized by January 2019, and implemented by March 2019.
- PA 2017-017B, 2017-017D & 2017-016 & 2017-007 Recommendations (4) for security improvements to GenTax: these recommendations have been partially implemented. Three of them are part of a longer-term project, which is underway. The budget request for FY 2019-20 is meant to bring in additional resources to help implement this project. The other recommendation doesn’t appear to have a technically feasible solution at this time.
- PA 2017-030 The Department of Personnel & Administration Collections application, Columbia Ultimate Business Solutions (CUBS) and The Colorado Automated Tax System (CATS) security improvements (1 recommendation outstanding): CUBS and CATS have been replaced as part of the Unemployment Insurance Modernization (UIM) project. The outstanding recommendation is in the process of being implemented and will be finalized by December 2018.

- PA 2017-015A OIT has continued to work with SIPA on a master agreement and was very close to finalizing an agreement for February 2019. However, SIPA has since indicated that they would not be continuing to partner with OIT on this effort.
- PA 2017-006 The Colorado Personnel Payroll System (CPPS) security improvement (1 recommendation outstanding). No changes are being made to CPPS, due to the age of the system and need for stability during the HRIS implementation. This recommendation will remain on-hold until the system can be replaced.

3 *If the Department receives federal funds of any type, please respond to the following:*

a. *Are you expecting any changes in federal funding with the passage of the FFY 2018-19 or 2019-20 federal budget? If yes, in which programs, and what is the match requirement for each program?*

RESPONSE: Office of the Governor (GOV), Office of State Planning and Budgeting (OSPB), Office of Economic Development (OEDIT), Colorado Energy Office (CEO), and Colorado Office of Information Technology (OIT) – these offices are not expecting any material changes in federal funding with the passage of the FFY budgets.

RESPONSE (Lt. GOV): While President Trump did zero out the Corporation for National and Community Service (CNCS) in his budget proposal, Congress passed record funding for the program. As such, the Commission Support Grant (Serve Colorado's main administrative grant) received an increase from $326,021 to $345,146. The match requirement is dollar for dollar with the CSG grant.

b. *Does the Department have a contingency plan if federal funds are eliminated?*

RESPONSE (CEO): If the DOE's Weather Assistance Program (WAP) and State Energy Program (SEP) appropriations were eliminated, programming would continue at a reduced funding level.

RESPONSE (Lt. GOV): The department CNCS funding is one year ahead so should Congress eliminate funds, Serve Colorado would finish administering the current and following year's grant and then begin the federal close out process. As Serve is primarily responsible for the AmeriCorps program, loss of federal funding or elimination of the AmeriCorps program would result in a loss of the office.

RESPONSE (OEDIT): The Office of Economic Development (OEDIT) as a whole does not expect any material changes. If federal funding for the Creative Industries from the National Endowment for the Arts were eliminated in the FY 2019-2020, these programs would cease to exist. If federal funding for the Small Business Development Center were eliminated in the FY 2019-2020, programming would continue on a very limited basis and rely on the matching funds from the state. However, this would only be sustainable for a limited time and ultimately this program would dissolve.

RESPONSE (OIT): N/A.

c. *Please provide a detailed description of any federal sanctions or potential sanctions for state activities of which the Department is already aware. In addition, please provide a detailed description of any sanctions that MAY be issued against the Department by the federal government during FFY 2018-19 or 2019-20.*

RESPONSE (Lt. GOV): Serve Colorado is a subgrantee of the Corporation for National and Community Service (CNCS). Funds received are then granted out to various agencies and organizations. In 2017-18 Serve Colorado shut down one of its subgrantees and disallowed $200,000. This money was returned from the grantee (Denver Public Schools) to the federal agency (CNCS). No sanction was placed on Serve Colorado. In October 2018 Serve Colorado was contacted by the CNCS Office of the Inspector General and notified that an audit of Program Year 2015-2016 and 2016-2017 of the Denver Public Schools program would begin in November. No timetable has been placed on this audit but any findings, and subsequent disallowances, should be resolved by the end of 2019. Again, any disallowances would be charged directly to the grantee and not to the organization. No sanctions would fall on Serve Colorado.

One issue where there may be a potential disallowance is via the social security/citizenship status of former members. CNCS recently mandated that state commissions (like Serve Colorado) verify thousands of members whose verification had not been processed by CNCS from a seven year time span. Serve Colorado started with about two-hundred and seventy (270) names on a list and verified all but fifty-one. Of those fifty-one, six were members of programs that no longer exists. Serve Colorado will attempt to find previous host agencies and fiscal agencies to issue disallowance letters but if none can be found, Serve Colorado may have to absorb the cost. Please see the table below for the potential disallowance by program. It is important to note that the Weld County Youth Conservation Corps was a program hosted by the Weld County Board of Commissioners and Weld County Human Services. This program makes up $14,920.93 of the potential $20,951.41 disallowance.

NSP_ID	PGM_NAME	Cost/MSY per PY	Estimated Cost based on slot type	Education Award
810148	Saguache United Methodist Church AmeriCorps Program	$ 800.00	$ 800.00	
1288618	Southwest Check and Connect	$ 13,730.00	$ 5,230.48	
1160441	Weld County Youth Conservation Corps (WCYCC)	$ 13,194.00	$ 3,490.47	$ 1,468.25
1023290	Weld County Youth Conservation Corps (WCYCC)	$ 12,590.00	$ 3,330.68	
1178962	Weld County Youth Conservation Corps (WCYCC)	$ 13,194.00	$ 2,792.38	
1022213	Weld County Youth Conservation Corps (WCYCC)	$ 12,590.00	$ 2,664.55	$ 1,174.60
Total			$ 18,308.56	$ 2,642.85
			Potential Total Disallowance:	$ 20,951.41

RESPONSE (OEDIT): The Office of Economic Development (OEDIT) does not currently have any federal sanctions, nor are there any expected.

RESPONSE (OIT): N/A.

4 *Is the Department spending money on public awareness campaigns? If so, please describe these campaigns, the goal of the messaging, the cost of the campaign, and distinguish between paid media and earned media. Further, please describe any metrics regarding effectiveness and whether the Department is working with other state or federal departments to coordinate the campaign?*

RESPONSE: Office of the Governor (GOV), Office of the Lieutenant Governor (Lt. GOV), and the Office of State Planning and Budgeting (OSPB), do not have public awareness campaigns.

RESPONSE (CEO): For the CEO, the Office uses public communications and outreach strategies to inform the public and stakeholders about CEO's programming. However, the CEO has no public awareness campaigns.

RESPONSE (OEDIT):

- The Colorado Tourism Office's Leave No Trace campaign is the only OEDIT current paid public awareness campaign. All other FY19 OEDIT marketing activities have shifted into digital lead generation campaigns (e.g. LinkedIn) that target specific executives and business decision makers.
- **Leave No Trace Partnership – Public Awareness Programming –**
    - Last month's public awareness campaign educates visitors to "Care for Colorado," addressing resident concerns over impact to tourism destinations driven from high volume and/or lack of care to the areas. To create effective messaging for travelers, CTO sought out the expertise of the Leave No Trace Center for Outdoor Ethics, long-time partners of U.S. public lands agencies and top outdoor retailers.
    - CTO has also shaped its dispersion strategy to drive rural economic development while coaching small communities into developing compelling traveler experiences. CTO and Leave No Trace are building partnerships with other tourism groups both to expand impact and propagate industry best practices.
    - Budget Total budget impact is approximately $71,000
    - Metrics The animated video has already earned 43,000 views on the Visit Colorado Facebook page just two weeks after being posted and has gained viral traction on additional third party sites (media and outdoor industry) statewide. Performance metrics will be updated at 90 day and end of year performance (Dec. 31, 2018).
    - Additional Research A total of 84% of Colorado residents surveyed said they believe it's important to attract visitors during off-peak seasons, while 80% also said it's important to attract visitors to less-visited regions. Additionally, 80% said they would feel more positive about tourism if destinations educated travelers to reduce their impacts on resources.

RESPONSE (OIT): OIT's public awareness campaigns (e.g., cybersecurity awareness, STEM outreach, etc.) are conducted through earned and social media, as well as inter-agency communications which have no cost attached to them.

5 *Based on the Department's most recent available record, what is the FTE vacancy and turnover rate by department and by division? To what does the Department attribute this turnover/vacancy? Do the statewide compensation policies administered by the Department of Personnel help or hinder in addressing vacancy or turnover issues?*

RESPONSE: Office of the Governor (GOV) currently has 6 vacancies, Office of the Lieutenant Governor (Lt. GOV) has 2 vacancies, Office of State Planning and Budgeting (OSPB) has 1 vacancy, Office of Economic Development (OEDIT) has 7 vacancies, and Colorado Energy Office (CEO) has 3 vacancies. Turnover rate for Office of the Governor (GOV) was 47%, Office of the Lieutenant Governor (Lt. GOV) was 36%, Office of State

Planning and Budgeting (OSPB) was 45%, Office of Economic Development (OEDIT) 32%, and Colorado Energy Office (CEO) was 27%.

The department attributes turnover rates primarily to compensation or seeking professional opportunities outside the state. The statewide compensation polices do not apply to us and therefore do not help or hinder us.

RESPONSE (OIT): FTE Vacancy - As of November of 2018, OIT has a total of 67.5 open FTE's and a vacancy rate of 7.07% (Open positions divided by allocated positions)

Long Bill Line - FY 2018-19	FTE Filled	FTE	Open Positions	Vacancy Rate (Open positions/allocated positions)
(A) OIT Central Admin	148.0	149.0	1.0	0.67%
(B) IT Infrastructure (EAB)	121.0	134.0	13.0	9.70%
(C) Network (EAC)	94.0	106.0	12.0	11.32%
(D) Information Security	49.0	47.0	-2.0	-4.26%
(E) Applictions (AE)	316.0	352.5	36.5	10.35%
(F) End User Services (EAF)	159.0	166.0	7.0	4.22%
	887.0	954.5	67.5	7.07%

The FY 2018-19 turnover rate for OIT is 16.1%. Based on exit survey data, aside from retirement which is OIT largest percentage of reasons, individuals left for growth opportunity and pay. Statewide compensation policies are not hindering OIT ability to compensate appropriately; OIT's budget remains the greatest hindrance. OIT does not have the budget to pay incoming or existing staff at a rate that would be considered competitive in the Denver Metro tech market. That said, there are opportunities to improve the Statewide merit process that would improve the pay for existing high performers and could help with turnover.

6 *Please identify how many rules you have promulgated in the past two years (FYs 2016-17 and 2017-18). With respect to these rules, have you done any cost-benefit analyses pursuant to Section 24-4-103 (2.5), C.R.S., regulatory analyses pursuant to Section 24-4-103 (4.5), C.R.S., or any other similar analysis? Have you conducted a cost-benefit analysis of the Department's rules as a whole? If so, please provide an overview of each analysis.*

RESPONSE: Office of the Governor (GOV), Office of the Lieutenant Governor (Lt. GOV), Office of State Planning and Budgeting (OSPB)), Office of Economic Development (OEDIT) and Colorado Energy Office (CEO) do not promulgate rules.

RESPONSE (OIT): In the past two years OIT has only promulgated the following rule. {8 CCR 1501-9} (Colorado Rules Regarding Electronic Transactions by Colorado Governmental Agencies) - There was no Cost-Benefit Analysis required for this rule. Effective Date: 3/20/2017.

7 *What are the major cost drivers impacting the Department? Is there a difference between the price inflation the Department is experiencing compared to the general CPI? Please describe any specific cost escalations.*

RESPONSE: Office of the Governor (GOV), Office of the Lieutenant Governor (Lt. GOV), Office of State Planning and Budgeting (OSPB), Office of Economic Development (OEDIT) and Colorado Energy Office (CEO) – Cost drivers that impact the department are primarily

payroll and travel expenses. These costs increase in line with the general CPI and there are no other unique factors affecting the prices.

RESPONSE (OIT): There are a variety of cost drivers that impact OIT's operations, including increased costs for technical staff, rates for contract professional services, as well as contract cost increases for Software and IT Maintenance. OIT competes with the private sector for skilled technical staff. As market salaries and nationwide demand continues to increase, particularly for key positions related to cyber security, network and database administration, this puts pressure on OIT resources above and beyond standard inflation, and contributes to ongoing challenges with hiring and retention in these areas. In addition to personal services costs, increased volume has driven an overall increase in OIT costs beyond the scope of base appropriations. OIT works to meet agency demand for projects and program needs that require additional developers, project managers, software, security, and infrastructure resources, and these projects in turn drive use of administrative resources.

8 *How is the Department's caseload changing and how does it impact the Department's budget? Are there specific population changes or service needs (e.g. aging population) that are different from general population growth?*

RESPONSE: The Governor's Offices do not have caseload.

9 *Please provide an overview of the Department's current and future strategies for the use of outward facing technology (e.g. websites, apps) and the role of these technologies in the Department's interactions with the public.*

RESPONSE: The Governor's Office as well as the Lieutenant Governor's Office each have a public-facing webpage on the Colorado.gov domain. The sites are curated by employees in the Governor's Office and contain announcements, news and updates about the business conducted by the offices. OSPB also has a page on the Colorado.gov domain that contains all their publications. The publications are budget requests, economic forecasts and program descriptions and updates. These are all available to the public in PDF format.

RESPONSE (CEO): The CEO utilizes its state issued department website as its primary platform for interaction and dissemination of information to the public. CEO's website serves as an informational hub on 1.) energy data in Colorado 2.) CEO energy programs and participation, 3.) energy resources and reports. CEO has been working closely with Colorado Interactive (CI) in anticipation of the pending update and migration of its new website (launch date TBD). Future strategies for the website have not yet been developed as the capabilities of the new website have yet to be presented by CI. Once a migration schedule is issued and a website demo has been completed by CI, CEO will evaluate the opportunities to refine its website to better serve as a centralized hub for energy resources, programs, and incentives in Colorado.

RESPONSE (OEDIT): OEDIT's statutory charge to use data and analytics to drive stakeholder engagement informs our agency's use of outward facing technology. Current OEDIT digital technology (web and social) is leveraged to target, attract and support business formation, growth and retention. OEDIT's digital suite provides the most cost efficient platforms to communicate and engage economic stakeholders. Choosecolorado.com (the core

web portal) is the hub of agency lead gen strategy and serves as central repository of business economic program resources.

OEDIT uses Salesforce as our core CRM tool to provide the needed user profiles and list segmentation that enables timely communication of breaking news and information capture (e.g. soliciting community feedback for the identification of eligible state opportunity zone census tracts to support the 2017 federal legislation). Future digital strategy is dependent upon demonstrated user behavior patterns that reveal performance efficiencies and/or enhanced user experience functionality.

RESPONSE (OIT): In most cases, OIT is engaged by other departments to provide outward facing technology solutions for their particular service offerings. Case in point is the Program Eligibility and Application Kit (PEAK) located at Colorado.gov/PEAK. This external-facing website serves as a self-service portal for Coloradans to apply for and manage public assistance benefits. The programs are managed by our health and human services partners while the technology solution is managed by OIT. For these situations, our future strategies are dependent on the strategies of our agency partners. OIT's role in using public-facing technology in the future will also be informed by the expectations of the new administration.

On the contrary, myColorado will serve as OIT's first owned and managed mobile application. As the State of Colorado's official mobile app, myColorado will offer a secure, seamless and accessible user experience for Coloradans to conveniently engage with state services provided by many different departments. Upon myColorado's initial launch, the app will contain services provided by the Division of Motor Vehicles (DMV), but OIT continues to have conversations with agency partners to bring on additional in-app services.

In addition to offering DMV driver license and vehicle registration renewal, myColorado will contain a digital wallet for easy storage of identification a vehicle registration receipt and insurance card. As other state services become available through the app, related digital documents can be added to the wallet.

10 *Upon implementation of the federal Family First Prevention Services Act, how will the Office of State Planning and Budget evaluate programs and services across State Departments and systems to ensure the following:*

- Maximized utilization of federal and cash fund sources;
- Minimization of duplicated independent collaborative initiatives within and across State Departments and integration of the administration of such initiatives at the state level; and
- Appropriate processes that will remove funding barriers so that expenditures for services are paid for out of the responsible Department/program budget and fund source (including, but not limited to Medicaid)?

RESPONSE: OSPB has not yet determined how best to evaluate programs under the Family First Prevention Services Act. Achieving the goals of the legislation will be an important undertaking involving cross-Department collaboration. The Department of Human Services has indicated that it does not intend to implement the Act until October 2021 due to statutory and technology hurdles. We will review these plans with the Department. If the JBC or JBC staff has input in how best to address the questions above, we welcome your ideas and engagement.

OIT JBC Hearing

December 2018

COLORADO

Governor's Office of Information Technology

Serving people serving Colorado

Suma Nallapati
Secretary of Technology &
State Chief Information Officer

OIT: Our Impact by the Numbers




900+ OIT employees in 70 locations…

…serving 31,000 state employees in 1,300 locations

…resolving 336,000 service desk tickets annually

…detecting 8.4 million security threats daily

…leading 1,200 IT projects

Then & Now: 2014 - 2018

Baseline: 2014	Current State: 2018
Customer Service Excellence: Net Promoter Score: -44 *(Scale of -100 - +100)*	**Customer Service Excellence:** Net Promoter Score: +2 *(Comparable to Deloitte, WiPro and Hitachi)*
Customer Satisfaction (CSAT): 91%	**Customer Satisfaction (CSAT):** 97%
Customer First Impressions: Mean Time to Resolve Major Incidents: 9 hours 16 minutes (FY15)	**Customer First Impressions:** Mean Time to Resolve Major Incidents: 3 hours 28 minutes (Expanded to 24x7 service) First Contact Resolution: 92%
Service Desk Tickets (June 2014 - July 2018): Total Tickets Opened & Closed: 1.6 million | Closing Rate increased 4% with no additional staff	**Service Desk Tickets (June 2014 - July 2018):** Total Tickets Opened & Closed: 1.6 million | Closing Rate increased 4% with no additional staff
McAfee Risk Score: 23.50	**McAfee Risk Score:** 9.46 - lowest achieved score *(Risk Score of 20 or below is ideal)*
Employee Engagement Score: 56%	**Employee Engagement Score:** 72%
Rural Broadband Coverage: June 2017: 77% of rural households	**Rural Broadband Coverage:** Oct. 2018: 83% of rural households
Completed Projects (June 2014 - July 2018): Active Projects: 960 | Colorado Benefits Management System (CBMS) Projects: 501 | Keep the Lights On (KLO) Projects: 200 | CBMS KLO Projects: 19 | **Total: 1,680**	
Service Desk Tickets (June 2014 - July 2018): Total Tickets Opened & Closed: 1.6 million | Closing Rate increased 4% with no additional staff	

FY18 Wildly Important Goals

76%

Achieve and sustain 75% customer satisfaction as measured by Customer Service Index Rating

EXCEEDED

99%

Achieve and sustain 97.5% of the environment equipped with security tools to reduce risk

EXCEEDED

83%

85% of rural households have access to broadband by December 31, 2018

ON TRACK

79%

in the first three months

Advancing employee support and collaboration - 25% increase in OIT's collaboration and engagement community

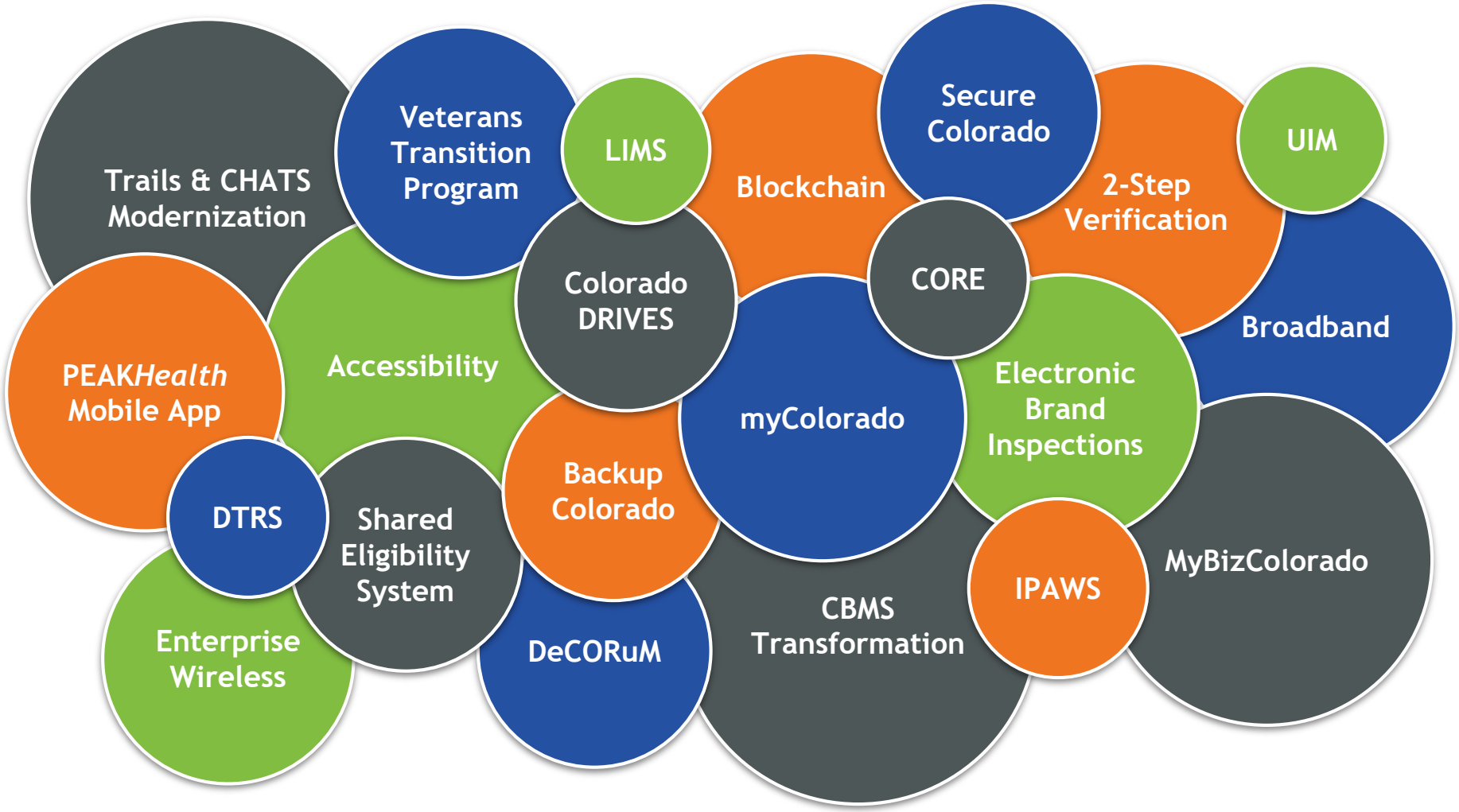
EXCEEDED

100%

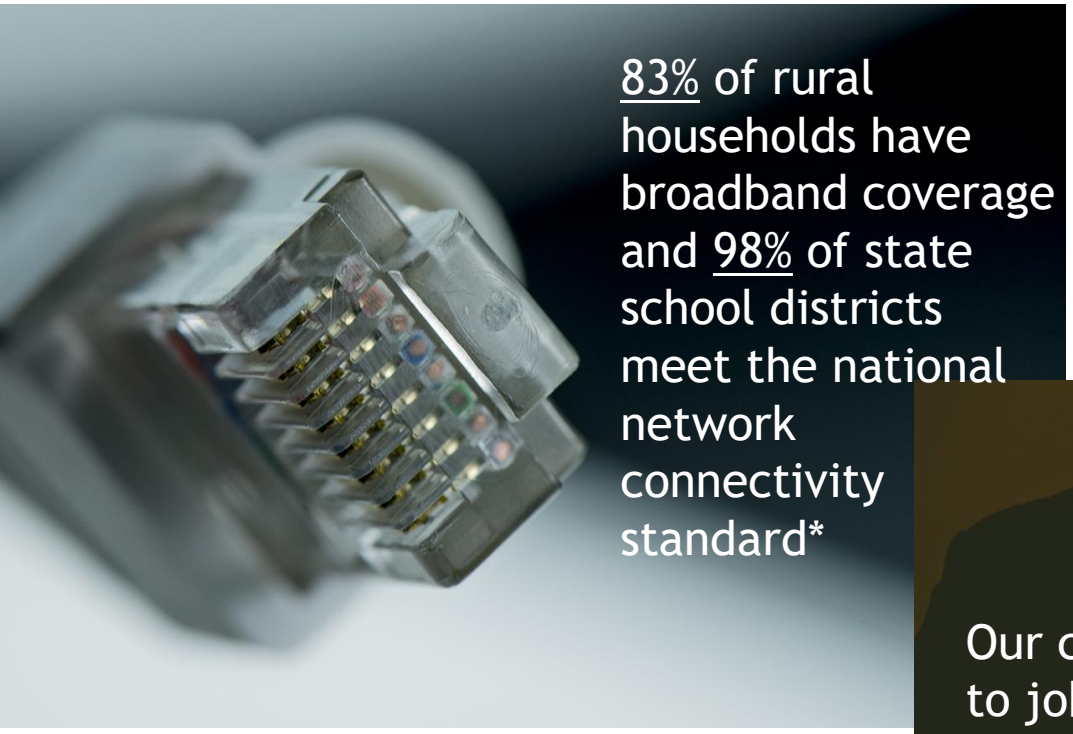
100% expansion of customer touch points for future digital enhancements by increasing from 150 touchpoints to 300.

EXCEEDED

OIT Accomplishments



Community Impact



83% of rural households have broadband coverage and 98% of state school districts meet the national network connectivity standard*

Internship & Apprenticeship Program

Our commitment to job creation contributed to 5,664 net new IT jobs added in Colorado in 2018

Veterans Transition Program

*As of October 2018

FY2019-20 Budget Request Includes:

Essential Database Support	Application Refresh & Consolidation	Agency IT Staff Technical Adjustment
Securing IT Operations	Optimize Self-Service Capabilities	CBMS/PEAK
Operations & Administration Center Relocation	Enterprise Data Integration Services	DOR Lottery IT Staff Consolidation

2018 CDOT Cyber Incident

Speed & Cost	4 weeks to 80% | $1.7 million
Keys to Success	Backups Segmentation
Recovery	Recovery was an opportunity to implement security best practices. In some cases across all agencies!
After Action	JTC overview of incident: April 13, 2018 After Action Report published: July 17, 2018
Lessons Learned	Need to implement security projects faster Better controls over accounts Better cloud governance

Technology Initiatives

Colorado Benefits Management System (CBMS) & Program Application & Eligibility Kit (PEAK)

Application Refresh & Consolidation

Enterprise Data Integration Services

Organizational Structure

Suma Nallapati
Secretary of Technology
& State Chief Information Officer

Brenda Berlin
Deputy CIO & Chief Financial Officer

- Budget
- Contracts
- Finance
- Legislative Affairs
- Payroll
- Performance Management Strategy Development & Execution
- Procurement
- Vendor Services

Tony Neal-Graves
Broadband Executive Director

- Colorado Broadband Office
- Broadband Development
- Public Safety Technology Program

Brandi Simmons
Chief Communications Officer & PIO

- Agency Communications
- CBMS / Health IT Communications
- Internal Communications
- IT Economic Development
- Marketing & Branding
- Media Relations

William Chumley
Chief Customer Officer

- Agency IT Directors / Business Relationships
- IT EcoSystem & Customer Service Portal
- Major Incident/Change Management
- Project Management & Business Portfolio
- Service Desk

Deborah Blyth
Chief Information Security Officer

- Office of Information Security
- Risk & Compliance
- Security Governance
- Security Architecture Planning & Review

Ramona Gomoll
Chief People Officer

- Benefits & Compensation
- Employee Relations
- Learning & Development
- Performance Management
- Rewards & Recognition
- Talent Acquisition

David McCurdy
Chief Technology Officer
Dan Santangelo
COO

- Agency (Business) Applications & Services / Development & Support
- CBMS
- Chief Data Officer
- Data Centers
- Database Services
- Deskside Support & Services
- Digital Transformation
- Enterprise Applications & Services
- FirstNet
- GIS
- Google Apps for Government
- Mainframe, System & Server Administration
- Network & Voice Services
- Public Safety Communications Network (DTRS)
- Security Operations & Access Control

THANK YOU!

QUESTIONS?