High-Risk List

Identifying and Mitigating Critical Vulnerabilities in Utah – 2023

Office of the Legislative Auditor General

Report to the **UTAH LEGISLATURE**

LEGISLATIVE AUDITOR GENERAL

Audit Subcommittee

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September 18, 2023

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report:

"High-Risk List: Identifying and Mitigating Critical Vulnerabilities in Utah"
[Report #2023-10]

An audit summary is found at the front of the report. The scope and objectives of the audit are included in the audit summary. In addition, each chapter has a corresponding chapter summary found at its beginning.

This audit was requested by the Legislative Audit Subcommittee.

We will be happy to meet with appropriate legislative committees, individual legislators, and other state officials to discuss any item contained in the report in order to facilitate the implementation of the recommendations.

Sincerely,

Kade R. Minchey, CIA, CFE

Auditor General

kminchey@le.utah.gov

High-Risk List:
Identifying and Mitigating Critical Vulnerabilities in Utah – 2023
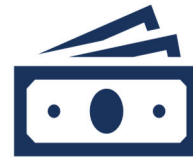
Utah's Water Needs

Substance Use

Cybersecurity and Data Privacy

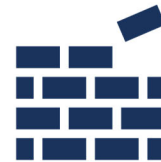Utah's Water Infrastructure

Strategic Human Capital

State Revenue Diversification

Educational Pathways

Housing Affordability

Real Property Management

Mental Health

Utah's Energy Policy

Contract Performance Management

HIGH-RISK LIST

▶ AUDIT REQUEST

For several years, the U.S. Government's Government Accountability Office (GAO) has produced a biennial list of high-risk programs of government operations that highlight vulnerabilities at the federal level. Our office presented this method of risk identification to the Legislative Audit Subcommittee, as a way to provide preventative risk services to benefit Utah. The subcommittee prioritized this audit in June of 2022.

▶ BACKGROUND

In the 2023 General Session, the Legislature codified the high-risk list as part of OLAG's regular duties. We report to the Audit Subcommittee a list of high-risk programs and operations that:

- Threaten public funds or programs;

- Are vulnerable to inefficiency, waste, fraud, abuse, or mismanagement; or

- Require transformation.

12 HIGH-RISK AREAS

① Utah's Water Needs: Meeting Utah's water needs requires ongoing data management and coordination.

② Utah's Water Infrastructure: Utah's aging water infrastructure requires large capital infusions.

③ Educational Pathways: Better preparation and clearer pathways to high-yield programs can improve education's ROI.

④ Mental Health: Capacity issues to meet the rise in mental health treatment demand need to be addressed.

⑤ Substance Use: Substance misuse continues to take Utah lives.

⑥ Strategic Human Capital: Employment vacancies in critical areas of state government are concerning.

⑦ Housing Affordability: Housing affordability contributes to concerns with Utah's cost-of-living and statewide economic growth.

⑧ Utah's Energy Policy: Our previous audit found that Utah is at an energy crossroads and needs better planning to maintain its priorities.

⑨ Cybersecurity and Data Privacy: Recent OLAG audits found Utah must increase cybersecurity training and improve management of personal information.

⑩ State Revenue Diversification: Policymakers need to further address revenue uncertainty in key tax areas of the state.

⑪ Real Property Management: Utah buildings with unreinforced masonry pose a seismic threat to occupants. School construction projects need standards.

⑫ Contract Performance Management: Participation in contract performance management should be required. Centralized oversight of grants needs to occur.

ACTION NEEDED TO LESSEN THE IMPACT OF HIGH-RISK AREAS:
INJURY/LOSS OF LIFE   ECONOMIC LOSS $ AND PROGRAM FAILURE

Utah's Water Needs

Improved data collection and management, along with better conservation efforts can mitigate threats to Utah's growing population.

Utah's Water Infrastructure

Utah residents' lives and health are at risk if dams and water systems fail and water quality is affected.

Educational Pathways

Poor workforce alignment may reduce a graduate's ability to meet living costs and could prevent the state's ability to fill in-demand jobs.

Mental Health

Residents' lives and overall quality of life are at risk if access to and coordination within mental health services is not improved.

Substance Use

In 2022, drug poisoning deaths (531) claimed more lives than motor vehicle deaths (320) and firearms deaths (450).

Strategic Human Capital

Vacancies in critical areas such as the State Hospital, State Prison, Public Safety dispatch, and UDOT put safety of residents at risk.

Housing Affordability

25% of Utahns are housing cost-burdened, limiting economic mobility.

Utah's Energy Policy

The changing energy system may impact resource adequacy and affordability without proper planning.

Cybersecurity and Data Privacy

Cybersecurity breaches may result in losses of information, credibility, and service and residents could be at risk of identity theft and loss of privacy.

State Revenue Diversification

The state's structural budget integrity could be at risk due to issues in three tax areas and difficulty in finding consensus policy solutions.

Real Property Management

Injuries or death can occur during seismic events in buildings with unreinforced masonry.

Contract Performance Management

Millions of dollars in contract performance can be compromised without required oversight beyond procurement of the contract.

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Background:
Methodology for High-Risk Areas Focused on Impact and On-going Demonstrated Progress

Identifying the 12 High-Risk Areas

For several years, the U.S. Government's Government Accountability Office (GAO) has produced a biennial list of high-risk programs of government operations that highlight critical vulnerabilities at the federal level. Our office presented this method of risk identification to the co-chairs of the Legislative Audit Subcommittee, as a way to provide preventative risk services to benefit Utah. The Legislative Audit Subcommittee prioritized this audit in June of 2022. Then in the 2023 General Session, the Legislature codified the high-risk list as part of our regular duties. The office was directed to "create, manage, and report to the Audit Subcommittee a list of high-risk programs and operations that:

- Threaten public funds or programs;

- Are vulnerable to inefficiency, waste, fraud, abuse, or mismanagement; or

- Require transformation."

Our initial work identified almost 30 potential high-risk areas, as we used criteria from GAO's list and the list of peer offices providing similar audit and evaluation services to their legislatures. We also considered policy concerns of state significance identified by Utah stakeholders. Further reviewing of past lists from the GAO and California suggested a manageable list could be between 8 and 12 high-risk areas.

Next, our approach to sifting through the nearly 30 initial risk candidates consisted of compiling a high-level risk assessment and an impact statement for each of the areas. We created the risk assessments through the following steps:

- **Step 1:** reviewing documents that portrayed the concerns of key Utah stakeholders, as well as interviewing legislative leaders, the governor, executive branch cabinet members, judicial and local government officials, as well as other key stakeholders.

- **Step 2:** reviewing risk lists at the federal and state levels (the federal Government Accountability Office and the California State Auditor's Office—two entities that maintain high-risk lists).

- **Step 3**: reviewing past and current audits from our office. Past and current OLAG audits helped inform our decision on what to include in the high-risk list due to the built-in screening and prioritization process that yields high-risk and important areas that we audit.

Step 1 allowed us to identify which of the Utah stakeholder concerns matched our nearly 30 high-risk candidates and highlighted the main concerns in each risk area. Step 2 showed us if we had similar concerns as the federal government or other states. And Step 3 gave us a chance to review what work our office (Office of the Legislative Auditor General, or OLAG) has already done or is currently working on the risk candidates. These high-level risk assessments then fed the impact statements for each candidate.

In the impact statements, we identified the largest detrimental effects that could stem from each high-risk area. When possible, we quantified that potential impact through an analysis of legislative, agency, and other documents or data sources related to the risk candidates. These impacts fell into three general categories: 1) injury or loss of life, 2) fiscal damages, or 3) impaired service delivery. Lastly, we selected performance measures in each risk area that could be used to track progress toward mitigating its risk.

This risk assessment and impact analysis process helped us to compare nearly 30 risk candidates on equal footing, allowing us to select the most concerning areas for the final high-risk list. It also provided us with a roadmap on how to further evaluate each of the final risk list items.

After reviewing the impact statements and comparing the effects of each high-risk candidate, we narrowed the final high-risk list down to 12 areas. Our experience with conducting audits and producing the first high-risk list under a reasonable deadline led us to divide our list as follows:

- **Six high-risk areas received an in-depth analysis of the Implementation Framework (discussed in the next section):** water needs, water infrastructure, educational pathways, mental health services, substance use, and strategic human capital.

- **Three high-risk areas link directly to full audits by our office:** housing affordability (to be released in November 2023); Utah's energy policy (linked to

the Energy Policy audit released in June 2023); and Cybersecurity & Data Privacy (linked to the respective audits released in May and June 2023).

- **Three high-risk areas termed "Honorable Mention," which highlight areas of critical vulnerability, and will receive in-depth analysis on the next iteration of the High-Risk List:** state revenue diversification, real property management, and contract performance management.

Rating the High-Risk Areas

Each of the 12 high-risk areas has its own chapter in this report. In the chapter summaries, we rate each area according to four dimensions and categorize the most detrimental impacts that could arise. As the format for this is the same in each chapter, we explain the rating system here for future reference.

Following our counterpart at the federal level, the GAO, we chose to rate the high-risk areas according to four dimensions:

- **Action Plan:** a corrective action plan exists that defines the root cause and solutions and provides for substantially completing corrective measures, including steps necessary to implement solutions we recommended.

- **Capacity:** agency has the capacity (i.e., people and resources) to resolve the risk(s).

- **Monitoring:** a program has been instituted to monitor and independently validate the effectiveness and sustainability of corrective measures.

- **Progress:** ability to demonstrate progress in implementing corrective measures and in resolving the high-risk area.
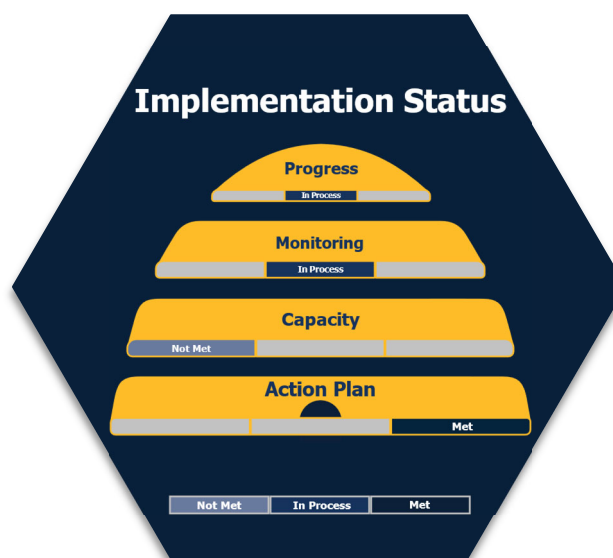
The Implementation Framework "beehive" shows how each of the four dimensions will be rated as "Not Met," "In Process," or "Met." This will allow stakeholders for each area of concern to show whether they are making progress toward mitigating the risk when we review the risk list every few years.

The four dimensions are likely to build on each other; once an action plan is in place, then capacity and monitoring can be established, and progress is likely to follow. If progress does not follow, it could show a need to review and adjust action plans, capacity, or monitoring mechanisms. We note that many action plans received a "Met" status without a full review by our office, per the scope of this audit. Thus, while they are "Met," that does not mean they may not merit further review in the future if progress in the area is not evident during future reviews.
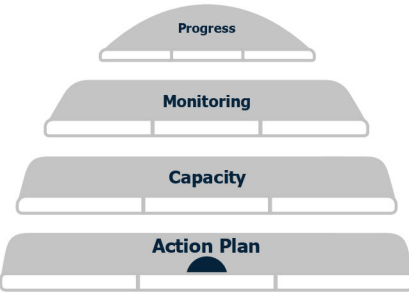
In addition to the areas with complete Implementation Framework ratings, there were several areas that did not receive full ratings. This is because they will receive full ratings in the future. For some, there are current OLAG audits that will address the high-risk issue and rate them (Housing Affordability and two of the Water Needs areas). The "Honorable Mention" areas (State Revenue Diversification, Real Property Management, and Contract Performance Management) will receive ratings in future iterations of the high-risk list. The Implementation Framework "beehive" graphics for these unrated areas are blank, as shown below.

OLAG Audit Pending

Progress

Monitoring

Capacity

Action Plan

Area Not Yet Rated

To Consider for Further Review

Progress

Monitoring

Capacity

Action Plan

Area Not Yet Rated

CHAPTER 1 Summary

Meeting Utah's Water Needs Requires Ongoing
Data Management and Coordination

LEGISLATIVE
AUDITOR
GENERAL

1 STATEWIDE WATER DATA

OLAG Audit Pending

Progress
Monitoring
Capacity
Action Plan

Area Not Yet Rated

HIGH RISK IMPACT

Injury or Loss of Life · Impaired Service Delivery · Fiscal Damages

PROGRESS
The Division of Water Rights (DWRi) has statutory authority to collect and manage water use data. Our November 2023 audit will review progress in statewide water data.

MONITORING
One monitoring challenge is for DWRi to improve its distribution database for all its water data, including irrigation and canal companies. This will be part of the November audit.

CAPACITY
DWRi faces some internal resource issues in connection with water data. Our upcoming audit will provide further context.

ACTION PLAN
Action plans, as well as the status of coordinated efforts to manage data and Utah's overall water portfolio, are part of the upcoming water usage audit.
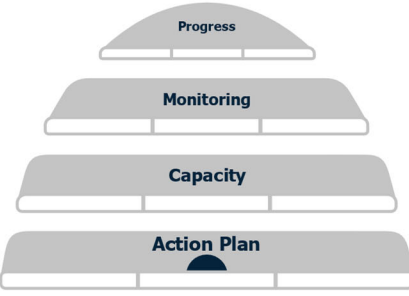
POTENTIAL IMPACT
Limited data inhibits the state's ability to manage its water portfolio.

2 AGRICULTURAL WATER OPTIMIZATION

OLAG Audit Pending

Progress
Monitoring
Capacity
Action Plan

Area Not Yet Rated

HIGH RISK IMPACT

Injury or Loss of Life · Impaired Service Delivery · Fiscal Damages

PROGRESS
Utah's Agricultural Water Optimization Program is intended to demonstrate water savings by reducing the agriculture industry's water diversion and consumption.

MONITORING
Many variables influence agricultural water use. These data fields will be discussed in our upcoming audit on Utah's water usage.

CAPACITY
The program has received $276 million in funding and our November 2023 audit will address this funding.

ACTION PLAN
Utah Code 73-10g-2 provides the framework for the optimization program, but a formal action plan to supplement statute and administrative rule may be beneficial.

POTENTIAL IMPACT
Agriculture's use of about 80% of Utah's diverted water could be reduced.

Improved conservation could delay the need for new infrastructure projects.

SECONDARY WATER METERING

3

Implementation Status

Progress
In Process

Monitoring
In Process

Capacity
In Process

Action Plan
In Process

Not Met | In Process | Met

HIGH RISK IMPACT

Injury or Loss of Life

Impaired Service Delivery

Fiscal Damages

PROGRESS – IN PROCESS
Of the estimated 190,000 secondary connections left to be metered by 2030, about 141,000 are funded while about 49,000 are not.

MONITORING – IN PROCESS
Monitoring could be enhanced by tracking awareness of secondary metering requirements, procurement issues and installation time frames, and comparing actual to projected costs.

CAPACITY – IN PROCESS
A main concern is obtaining funding for the 49,000 secondary connections that do not have funding. Device procurement may pose a problem, but supply has so far kept up with demand.

ACTION PLAN – IN PROCESS
Statue effectively lays out a statewide plan and is bolstered by administrative rule. Many local providers do not have metering plans in place despite applying for loan funds.

POTENTIAL IMPACT

Improved metering could increase water conservation by 20-40%.

Unimproved conservation may threaten a growing population and economy.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2017-17: An In-depth Follow-up of Projections of Utah's Water Needs

Report #2017-16: An In-depth Follow-up of the Division of Drinking Water's Minimum Source Sizing Requirements

Report #2015-12: A Performance Audit of Culinary Water Improvement Districts

Report #2015-01: A Performance Audit of Projections of Utah's Water Needs

Chapter 1
Meeting Utah's Water Needs Requires
Ongoing Data Management and Coordination

Why Area Is High Risk

Despite Utah's 2022-2023 record-breaking year for snowfall as reported by the Division of Natural Resources, the combined years of severe drought highlight the water challenges Utah faces as its population is projected to grow by 43 percent from 3.5 to 5.0 million by 2050.

> Utah faces water challenges as its population is projected to grow from 3.5 to 5.0 million by 2050.

In November of 2022, the Legislative Audit Subcommittee prioritized a comprehensive audit of Utah's water usage, including agricultural water. The intention was for our office to review water data, policies, coordination, and any other areas which could lead to efficiencies regarding Utah's water needs. Legislative leadership's prioritization of the audit signals the Legislature's commitment to addressing the on-going demands placed on Utah's water. In anticipation of the full audit release, this High-Risk list chapter gives just an introduction to a few focus areas for improvement regarding management of Utah's water portfolio.

1.1 Water Data Collection Efforts Are Being Assessed in An Upcoming OLAG Audit

Our office has completed multiple water audits in the past several years. However, past audits focused on municipal and industrial (M&I) users and excluded agricultural use, which is the state's largest water user at about 80 percent of total use. To best understand how Utah can plan for future water needs, agriculture water and related data concerns are the focus of the upcoming full audit. The upcoming audit will also provide the four progress assessments for this section. Thus, the beehive figure to the right that shows risk mitigation status is incomplete pending the completion of the audit.

OLAG Audit Pending

Progress

Monitoring

Capacity

Action Plan
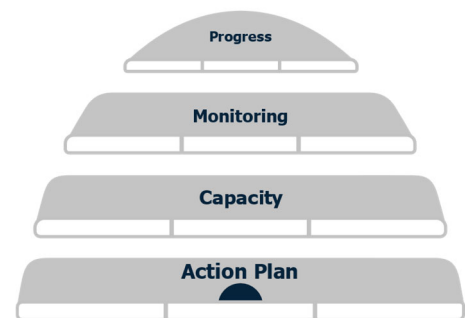
Area Not Yet Rated

Progress – Status Pending Future Audit Release

The Division of Water Rights (DWRi) has the statutory authority to collect and manage the data to be used for administering the use of the state's water and state water planning. Our assessment of the overall progress of the division is reserved for the upcoming audit. However, the audit will acknowledge DWRi's recent efforts in conducting its own internal review of gaps in historic and current data as well as identify data tools and other needed resources.

Action Plan – Status Pending Future Audit Release

Action plans, as well as the status of coordinated efforts to manage Utah's water portfolio is the topic of one full chapter in the upcoming water audit. The audit points to further action needed.

Capacity – Status Pending Future Audit Release

DWRi does face some internal resource issues in connection with water data, discussed in the upcoming audit.

Monitoring – Status Pending Future Audit Release

One specific data challenge to note in obtaining useful data for agricultural water use is for DWRi to improve its distribution database for all its water data, including irrigation and canal companies. As part of the overall treatment of water data monitoring, this topic will be addressed in the upcoming audit.

A big monitoring challenge is assembling an accurate database that includes all water data collected.

1.2 Agricultural Water Optimization Is Also Being Assessed in An Upcoming OLAG Audit

Given the scope mentioned earlier, as well as agricultural water use being one of four focus areas in *Utah's Coordinated Action Plan for Water*, agricultural water optimization is a key policy pillar for managing water in Utah. Accounting for about 80 percent of Utah's total water usage, potential water savings in agriculture are larger than M&I use for most river basins in Utah—Jordan River Basin being the one exception with agriculture accounting for 14 percent of use. The upcoming audit will provide the progress assessments for this section. Thus, the beehive

OLAG Audit Pending

Progress

Monitoring

Capacity

Action Plan
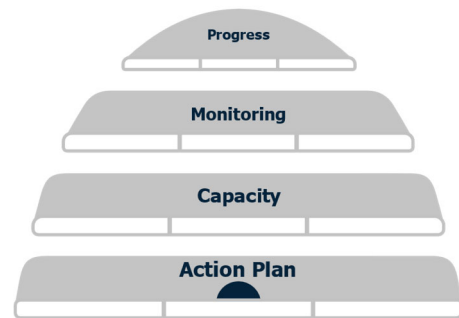
Area Not Yet Rated

figure on the previous page showing risk mitigation status is incomplete pending the completion of the audit.

Progress – Status Pending Future Audit Release

Utah's Agricultural Water Optimization Program (Ag Optimization) was initially created by the Legislature during its 2018 General Session. During the 2023 General Session, Senate Bill 277 modified the program, adding specific emphasis on demonstration of water savings in *Utah Code* 73-10g-206. A concurrent audit of this program was underway when this high-risk list was compiled. A report outlining findings related to Ag Optimization will be released in November 2023. Based on statutory definition, reducing agricultural diversions and depletions through this program could also increase the water supply throughout the state and minimize environmental impacts, such as dust mitigation.[1]

Action Plan – Status Pending Future Audit Release

The statutory framework for Utah's Agricultural Water Optimization Program is outlined in *Utah Code* 73-10g-201. Staff for the Utah Department of Agriculture and Food administer Ag Optimization under the direction of the Agricultural Water Optimization Committee, which replaced the Agricultural Water Optimization Task Force. Given the variety of duties associated with the program, a formal action plan[2] will likely be necessary to supplement statute and administrative rule governing its operation, which will likely be addressed by our concurrent audit.

A formal action plan for the Agricultural Water Optimization Program will likely be necessary to support statute and administrative rule.

Capacity – Status Pending Future Audit Release

Initial funding from general funds and two rounds of American Rescue Plan Act (ARPA) appropriations gave the Agricultural Water Optimization Program $76 million for projects. Additionally, Senate Bill 277 (2023 General Session) provided an additional $200 million. The audit will further discuss recommendations for the Agricultural Water Optimization Program.

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[1] Dust mitigation is estimated to be at a minimum $1.5 billion in capital costs with ongoing annual maintenance of $15 million. Those estimates skyrocket if costs and affected surface area increase. Beyond these direct costs, ecological impacts become more difficult to quantify but may have far reaching impacts if protected birds become adversely affected, which initiates a federal response. In sum, low water levels could damage Utah's public health and environment and threaten billions of dollars in economic activity.

[2] Referred to as a Strategic Plan in the upcoming audit.

Monitoring – Status Pending Future Audit Release

Agricultural water use is the product of multiple variables, such as crops being grown, soil makeup, location, climate, methodology to track use, etc. Therefore, we anticipate that several data fields should be monitored and considered when calculating reductions in water savings. Such control factors will be addressed in our concurrent audit, consistent with the best practices outlined in *The Best Practices Handbook*, published by our office in 2023.

1.3 Retrofitting Secondary Systems with Meters Is a Major Initiative Requiring Lead Time

Outdoor irrigation of landscapes throughout Utah is the largest water use for M&I systems. The Division of Water Resources reports that metering secondary water use is effective for improving water conservation and educating customers about better outdoor watering practices. Unmetered secondary connections are reported to use roughly 50 percent more water than metered connections. Some progress has been made as secondary water suppliers serving much of Utah's unmetered secondary connections have applied for grant and loan funds from the state. Financing capacity appears to be the primary constraint as there are about 49,000 secondary meters that have yet to be funded and would cost an estimated $103 million if grant funds were to cover 70% of the cost. Statute requires new or updated metering plans from all suppliers with unmetered secondary connections, and small secondary water suppliers appear to be most at risk for noncompliance due to unawareness of the metering requirement. Therefore, we are recommending that awareness about metering requirements and other metrics should be considered to bolster monitoring activities.
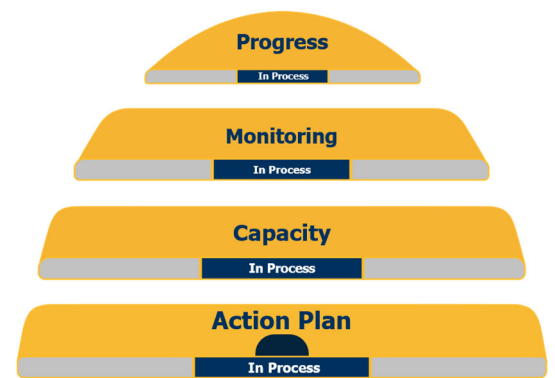
Progress – In Process: Not All Funding Is Committed for New Secondary Meter Connections

Statute[3] specifies that all new pressurized secondary water connections shall be metered, and existing connections for secondary water suppliers shall be metered by January 1, 2030. The Division of Water Resources reports that 190,000 secondary connections are not metered, down from 225,00 earlier this year.

State grants and loans have been made available to help offset the large price tag associated with installing secondary meters. The process to retrofit existing

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[3] *Utah Code* 73-10-34(2)

secondary connections consists of three major stages—financing, procurement, and installation. Most projects and secondary connections are entering the financing phase. The Division of Water Resources reports as of August 2023 that 122,000 unmetered secondary connections have grant funding committed and that grant funding is available for an additional 19,000 unmetered secondary connections, leaving 49,000 unmetered secondary connections needing funding.

Action Plan – In Process: A Statewide Plan Exists, but the Related Local Provider Plans Must Still Be Developed

Utah Code 73-10-34 establishes the secondary metering requirement. This section of statute effectively constitutes a statewide plan, as it includes the following:

- Project timeline for metering new and existing connections
- System-specific plan requirements for secondary water suppliers
- Financing options and restrictions
- Reporting requirements
- Compliance provisions enforced by the Division of Water Rights

We believe this section of statute passed by the Legislature provides state leadership to get this initiative going. Additionally, the Division of Water Resources has adopted *Administrative Rules* that establish processes to award grant funding for these projects.

Local provider plans must be developed or updated according to the statute. These plans should contain specific details about total project costs, financing, and an estimated project schedule. Statute provides a due date of December 31, 2025. According to the Division of Water Resources, more water suppliers have applied for loan funds than have submitted their new or updated metering plan. Therefore, we believe that this is the area where additional progress needs to occur—otherwise providers are likely to fall behind in meeting the state's goal of full secondary metering by 2030.

> **Local providers may fall behind schedule if they do not create plans detailing the cost and schedule for secondary metering implementation.**

Capacity – In Process: The Largest Capacity Concern Is Ongoing Funding for All the Needed Secondary Meters

In 2022, the Legislature provided $250 million in American Rescue Plan Act (ARPA) funding to assist in the costs to install secondary meters. About $209 million of that funding has been either contracted or authorized across 92 applications. Metering associated with that funding has an estimated savings of 57,800 acre feet (a little larger than the size of East Canyon Reservoir). The

remaining $41 million can cover 19,000 more meters, given certain conditions. This leaves 49,000 meters unfunded (of the 190,000 unmetered secondary connections mentioned in the Progress section above). It is estimated that they would cost $103 million in grant funds if the funds covered 70 percent of the costs. The Board of Water Resources has already received $67 million in additional requests.

Given the large number of secondary meters being installed, the procurement and installation of these devices was a potential capacity concern. Many of the unmetered secondary connections reside in Davis and Weber counties, and the Weber Basin Water Conservancy District (WBWCD) told us that suppliers have been somewhat able to keep up with meters, however radio equipment and connection fittings have been difficult to keep in stock. Additionally, there have been ample contractors in the region to keep pace with installation demands. Overall, the largest capacity concern going forward is obtaining the financing to move forward.

Monitoring – In Process: Installation of Secondary Meters Is the Primary Measure, but Development of Additional Measures Is Important

Retrofitted secondary connections with meters is the primary measure to assess progress. Other measures provide valuable context on how this initiative is progressing and can provide a leading indicator as to whether Utah's 2030 target will be achieved. Specifically, we would like to highlight additional monitoring of 1) awareness, 2) procurement, 3) installation, and 4) adherence to project budgets as insightful indicators.

Leadership in the Division of Water Resources expressed concern with whether small secondary providers were aware of the requirement to install secondary meters. Besides the adverse effects of not complying with the requirement, delays in applying for grants will reduce the percent of their project costs that are eligible, according to statute. Therefore, additional monitoring of outreach and awareness among small providers is important.

Procurement and installation delays will be important given the scale of Utah's initiative. While the Weber Basin Water Conservancy District reports positive conditions in these activities, the initiative is still in its beginning stages. Therefore, periodic updates on any issue, such as obtaining radio equipment, are important for suppliers to provide to the Division of Water Resources.

Finally, as financing appears to be the biggest capacity issue, understanding whether projects are coming over or under budget seems to be essential. Given the limited grant and loan funds from the state, suppliers will need to consider how to best finance the remaining costs for the project. Conversely, costs exceeding budget are likely to impact the water rates assessed to customers. The pricing of secondary water may ultimately have an impact on water use rates, which have historically shown some price sensitivity.

Periodic updates should be provided on awareness of metering requirements and any procurement and installation challenges that could cause delays.

DAM SAFETY PROGRAM

1

Implementation Status

Progress — In Process
Monitoring — In Process
Capacity — In Process
Action Plan — Met

Not Met | In Process | Met

HIGH RISK IMPACT

Injury or Loss of Life
Impaired Service Delivery
Fiscal Damages

PROGRESS – IN PROCESS
Prior funding levels allowed one high-hazard dam not meeting safety standards to be fixed each year—120 years are required to address current problems.

MONITORING – IN PROCESS
The Division of Water Rights is working to provide detail on lives and property at risk from high-hazard dam failure.

CAPACITY – IN PROCESS
Large one-time funding ($25 million for FY24) has benefited the dam safety program, but work has yet to begin on about 80 high hazard dams as yearly appropriations are about $3.8 million.

ACTION PLAN – MET
A list of high-hazard dam projects that need funding to address safety deficiencies has been prioritized according to potential impact and condition.

POTENTIAL IMPACT

Utah residents' lives are at risk if a high-hazard dam fails.

Significant property damage and disrupted water service can ensue if a dam fails.

WATER SYSTEMS AND MAJOR AQUEDUCTS

2

Implementation Status

Progress — In Process
Monitoring — In Process
Capacity — In Process
Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT

Injury or Loss of Life
Impaired Service Delivery
Fiscal Damages

PROGRESS – IN PROCESS
Efforts are currently underway to update partial sections of three of the four major aqueducts, although some steps to the process won't begin for about 20 more years.

MONITORING – IN PROCESS
The Statewide Water Infrastructure Plan details future cost projections; however, it does not compare projections to actual spending, which could be useful in tracking project deferment.

CAPACITY – IN PROCESS
Many smaller water systems do not have the expertise to create master plans for addressing aging infrastructure. In addition, policy questions on how to fund repairs need to be addressed.

ACTION PLAN – IN PROCESS
Many smaller municipalities and water systems do not have master plans in place to address aging infrastructure, leaving it unclear how these areas will finance future capital projects.

POTENTIAL IMPACT

Utah residents' lives and safety are at risk without water.

Replacement projects and new infrastructure projects compete for funding.

3 STORMWATER, WASTEWATER, AND DRINKING WATER SYSTEMS

To Consider for Further Review

- Progress
- Monitoring
- Capacity
- Action Plan

Area Not Yet Rated

HIGH RISK IMPACT
- Injury or Loss of Life
- Impaired Service Delivery
- Fiscal Damages

AGING INFRASTRUCTURE

Most of the infrastructure related to the collection, storage, distribution, and treatment of water from these systems was installed 50+ years ago and has reached the end of its useful life. Estimates to replace and repair this infrastructure are in the billions over the next 20 years.

THREATENED WATER QUALITY AND DRINKING WATER

The Department of Environmental Quality told us that population and development growth, along with drought, are contributing to a diminished water supply. Decreased water supply, increased risk of contamination, wildfire, and flood pose risks to public water systems to safely and reliably provide drinking water.

In addition, increasing federal regulations for emerging contaminants, along with increasing nutrients in stormwater and wastewater mean more algal blooms and risks to human health in recreational waters.

POTENTIAL IMPACT

Changes to treatment and infrastructure are needed for health and well-being.

A diminishing water supply requires more money to treat polluted water.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2017-17: An In-depth Follow-up of Projections of Utah's Water Needs

Report #2017-16: An In-depth Follow-up of the Division of Drinking Water's Minimum Source Sizing Requirements

Report #2015-12: A Performance Audit of Culinary Water Improvement Districts

Chapter 2
Utah's Aging Water Infrastructure Requires Large Capital Infusions

Why Area Is High Risk

Much of Utah's water infrastructure is nearing or exceeding its useful life or fails to meet state safety standards that minimize potential system failure. Therefore, events like major earthquakes can be disastrous to this infrastructure, as experts estimate the Wasatch Front region having a 43 percent chance of a 6.75 magnitude earthquake in the next 50 years. Such events could place lives at risk and restrict access to water for communities or large regions of the state. This loss of water could affect agriculture, drinking water, and environmental flows.

Utah has 223 high-hazard dams, meaning that if one of these dams were to fail it could be fatal for those who live or work in its flood plain. Elevated risks, such as earthquake resiliency, exist with the approximately 100 dams that do not currently meet safety standards. Utah's last significant dam failure was the Santa Clara Dam in September 2012, which caused $5 to $10 million in property damage. Flooding from the failure also affected 66 habitable structures. Avoiding failures like these that could potentially result in lost lives has been a priority for many years.

Damage to aging water infrastructure could put lives at risk and obstruct water and sewer services for over a million people for many months.

Additional water infrastructure concerns reside with aging distribution and transmission lines for various water systems throughout the state. Representatives from seven of Utah's

Click or Scan for 2020 *Statewide Water Infrastructure Plan*

water conservancy districts reported these concerns in the Statewide Water Infrastructure Plan (found through the QR code to the left) which is prepared by a group called Prepare60. Prepare60's 2020 estimates showed that $20.6 billion of infrastructure needs to be replaced by 2070, which is separate from the additional $17.6 billion in new infrastructure and conservation costs.[4] Such projects vary in size and impact, including seismic upgrades to four major aqueducts that provide water to

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[4] Representatives from the Division of Water Resources helped create these estimates in the report.

the Wasatch Front. The Utah Seismic Safety Commission estimates that damage to these aqueducts would cause water and sewer disruptions for more than a million people for many months. Other projects are smaller in nature and affect local communities. Health and safety to Utah residents stemming from water quality issues are also a concern due to aging stormwater, wastewater, and drinking water systems that are strained by population growth.

2.1 Some High Hazard Dams Do Not Meet Safety Standards

High-hazard dams are rated such because they place human lives at risk if they fail. While 223 of these reside in the state, the Division of Water Rights reported that concern resides with about 100 that do not meet safety standards. The problem with these high-hazard dams that do not meet safety standards is the slow rate that rehabilitation activities will be complete. If current funding levels persist, the Division of Water

| Progress |
| In Process |
| Monitoring |
| In Process |
| Capacity |
| In Process |
| Action Plan |
| Met |

Resources estimates 120 years will be required to resolve current deficiencies if no additional dams are added to the list.
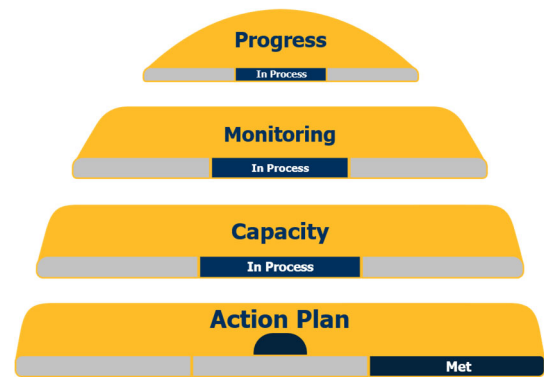
Progress – In Process: Estimates Report That 120 Years Are Needed to Upgrade Approximately 100 High-Hazard Dams

Rehabilitation efforts are underway for 24 of Utah's approximately 100 high-hazard dams that are not meeting safety standards. Recent large, one-time appropriations have helped with rehabilitation efforts, but an additional 81 high-hazard dams have not initiated construction activities and are the primary cause for the 120-year completion timeline estimated by the Division of Water Resources.[5] It is important to clarify that high-hazard dams are unique as human lives are at risk. Many additional moderate and low-hazard dams may also not meet safety standards[6] and are not included in our high-risk list as they are not a funding priority.

> **Moderate and low-hazard dams can become high-hazard because of residential or business development that puts humans downstream from the dam.**

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[5] The Division estimated the 120-year timeline based on the current $3.8 million per year funding level and a total of $454.5 million in upgrade costs remaining.

[6] There are over 600 low and moderate level dams, although many of them may meet safety standards.

A major factor that could increase the number of high-hazard dams requiring rehabilitation is hazard creep from development. Homes or businesses established below moderate- or low-hazard dams that do not meet safety standards increase the hazard status to "high" as human lives are in jeopardy. Adverse impacts to dam safety from residential development were observed during a Division of Water Rights inspection of a dam in Davis County. A subsequent engineering study was required to ensure the dam's integrity was not compromised.

Action Plan – Met: Statute and Administrative Rules Establish Sufficient Plans to Ensure That Unsafe High-Hazard Dams Will Be Addressed

Statute[7] and administrative rules[8] establish a robust plan for managing dam safety throughout the state. Additionally, the Division of Water Rights has a prioritized list of high-hazard dams requiring rehabilitation projects. The list ranks the high-hazard dams according to a matrix that assesses the extent that various safety standards are not met and the degree that human lives are at risk if failure were to occur.

State statute stipulates processes for approval of construction plans and the dam conditions whereby rehabilitation activities can take place. Therefore, we believe that the action plans for addressing high-hazard dams that do not meet safety standards appear adequate. The biggest constraint on the dam safety program is the financing capacity for these projects.

Capacity – In Process: Funding for Dams Comes From Multiple Sources. State Funding Is Becoming Increasingly Important.

Financing rehabilitation projects for high-hazard dams is the biggest constraint facing this risk area. Funding for these projects comes from three sources:

- **Federal Grant:** The Natural Resources Conservation Service (NRCS) provides funding for only NRCS dams[9]. The Federal cost-share is set at 65 percent of total rehabilitation cost, with a limit of 100 percent of the actual construction cost.

- **State Grant:** Statute[10] stipulates that the Board of Water Resources must provide a grant to cover 80 percent of project costs, as the Legislature has

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[7] *Utah Code* 73-5a: Dam Safety

[8] Administrative Rules R655-10, R655-11, and R655-12

[9] There are 12 NRCS dams in the state that need upgrades.

[10] *Utah Code* 73-5a-502(5)

recognized that these owners cannot afford to bear the entire financial burden.

- **Dam Owner:** Statute leaves the remaining 20 percent of costs to be paid by the dam owner; however, some dam owners can qualify for additional loans from the Board of Water Resources to cover some of the remaining 20 percent.

State funding has been the limiting factor to progress. Ongoing funds through 2007 were $4.3 million annually. After a one-year budget cut to $700,000 due to recession, the funding level was mostly restored to $3.8 million since 2008. Over the past decade, the Legislature has also made over $60 million ($36 million in restricted funds and about $26 million in general funds) in periodic large one-time appropriations.

One-Time Legislative Appropriations to Utah's Dam Safety Program Are Over $60M:

$11M	$8.4M	$18M	$25M
FY 2015	FY 2019	FY 2022	FY 2024
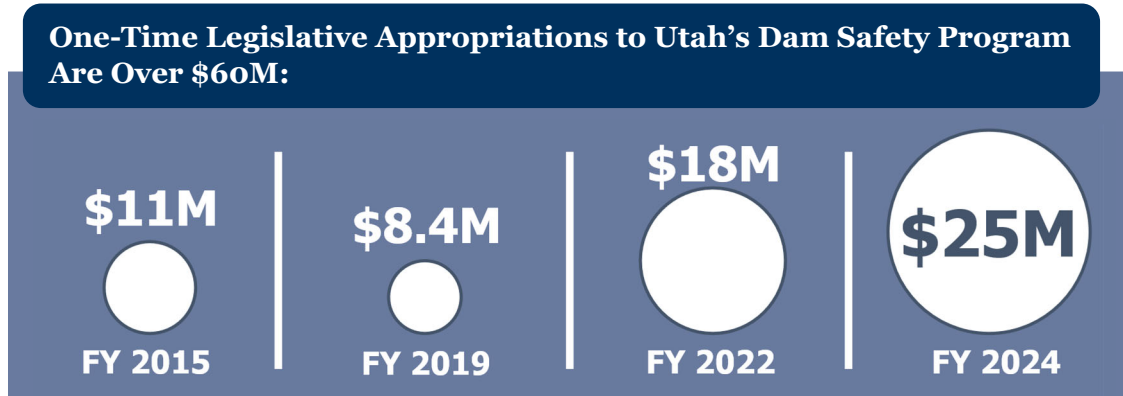
Large tranches of funding like that for FY 2024 are significant as they represent over six years of ongoing appropriations. This is a significant reduction to the estimated timeline of 120 years to address these high hazard dams that place lives at risk. The Division of Water Resources estimates that the total cost to the state for the approximately 100 high-hazard dams needing upgrades is about $450 million. This is separate from the $38.2 billion on the first page of this chapter that is needed to address water infrastructure needs for local water systems. Local water systems and the dam safety program are separate issues and the next section of this chapter will address the billions of dollars needed to upgrade local water systems.

Financing is the biggest constraint to improving high-hazard dams and mitigating risk.

Recent and substantial funding could help reduce the 120-year timeframe for addressing all high-hazard dams.

Fiscal year 2024 received the largest influx of state appropriations for the dam safety program. Staff from the Division of Water Rights Dam Safety Program told us that they anticipate adequate contractor

capacity to perform these projects. As this level of funding is unprecedented, we believe that this is one of several program performance measures worth monitoring.

Monitoring – In Process: The Division of Water Rights Is Working to Release Detailed Counts of Individuals and Property Affected by Failed Dams

Given the long horizon for remediating dam safety concerns, required annual inspections are a critical monitoring step that the Division of Water Rights is currently performing. These inspections help ensure 1) that known issues are not escalating and 2) that nearby development activities have not compromised a dam's structural integrity.

> **The Division of Water Rights inspects each high-hazard dam on an annual basis.**

The Division of Water Rights is also enhancing some of its other monitoring activities. The division is updating the hazard classifications of all dams. Rather than using categorical classifications, detailed counts of individuals and property affected by a failed dam are being compiled. These upgrades will help ensure that all dams that put human lives at risk are classified as high hazard. These upgrades are ongoing and when completed will provide a more reliable and accurate picture of the risk that Utah's various dams present and ensure they are classified appropriately.

2.2 Water Infrastructure Is at Risk of Failure From Seismic Risks and Delayed Replacement

Some of the water infrastructure throughout the state is nearing or exceeding its useful life. Hence, there are elevated risks of failure from earthquakes, pipeline breaks, or other events. Progress on mitigating these risks is focused on two issues: 1) providing seismic stability to the four major aqueducts that provide water to millions of people along the Wasatch Front, and 2) ensuring that small systems have master plans that address their aging infrastructure. Three of the four projects for aqueduct seismic upgrades are either in the planning or construction phase, with the fourth being scheduled for a 2041 upgrade. Therefore,

Progress
In Process

Monitoring
In Process

Capacity
In Process

Action Plan
In Process

our concerns are on the development of master plans for small water systems to address their aging infrastructure. Ensuring that these systems have access to technical expertise to develop these plans is the biggest constraint. Therefore, we

believe it is important to monitor how much is being invested in these capital projects. If investments fall below expectations and future cost estimates rise, this may be a problematic indicator that small systems are deferring their projects and increasing their risk of system failure.

Progress – In Process: Some Services to Improve Major Water Aqueducts Will Not Begin For 20 Years

Some services to improve the Salt Lake Aqueduct will not begin until 2041.

Water services to the Wasatch Front is largely made possible via four large arteries called aqueducts. These large pipelines serve Salt Lake, Utah, Davis, and Weber counties, but cross the Wasatch fault or were found to likely be compromised by an earthquake. Three improvement projects are currently underway, although at various stages of planning and construction. According to a 2022 report from the Utah Seismic Safety Commission, the Salt Lake Aqueduct consists of hardening the concrete pipe's base, which is not scheduled to begin construction till 2041. Given the potential adverse impacts if these aqueducts were to fail from an earthquake, we believe that completion of the initiated projects is critical to saying that progress has been met.

We were also told that other projects on the aqueducts will likely need to follow the current ones. For example, work on the Weber Aqueduct is addressing 2.5 miles of approximately 36 miles of aqueduct that will need to be assessed for similar vulnerabilities.

In addition to the large aqueducts, our other primary concern is the lack of action plans for smaller water systems, which will be detailed in the next section. As the potential failure of these systems can have a large adverse impact on individual communities, we are concerned that replacement projects will be deferred because plans are not in place. Therefore, as Prepare60 noted in its 2020 edition of the Statewide Water Infrastructure plan, some systems lack master plans, which we believe needs to be resolved so systems can reliably deliver water and timely address aging infrastructure.

Action Plan – In Process: Many Small Water Systems Do Not Have Master Plans in Place, Which Could Defer Replacement Projects and Adversely Impact Individual Communities

Addressing Utah's water infrastructure needs requires a statewide plan given the various water systems of various sizes distributed throughout the state. Utah's four large water conservancy districts were best positioned to lead such an effort.

Their collaborative effort with other districts through Prepare60 generated the Statewide Water Infrastructure Plan.

Figure 2.1 Estimates Show That Repair and Replacement Costs As Well As New Infrastructure Costs In Local Water System Will Cost $38.2 Billion. This is separate from the $9.5 billion in conservation costs paid by business and homeowners.
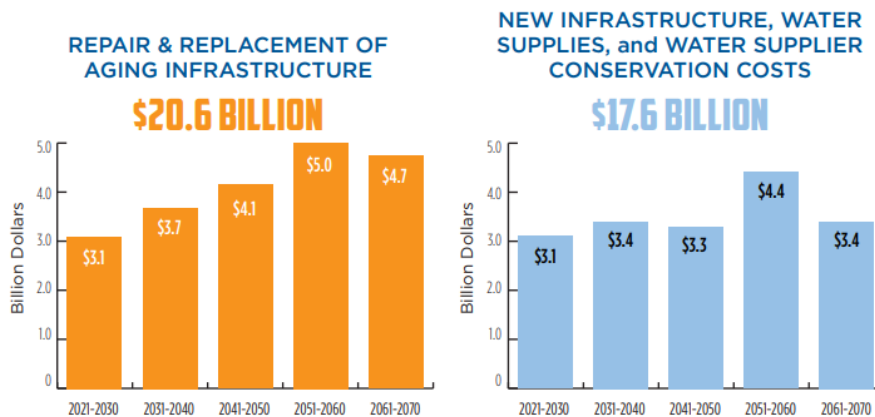
Source: 2020 Prepare60, Statewide Infrastructure Plan

This plan identified Utah's various infrastructure needs throughout Utah's river basins, which came to $38.2 billion through 2070, illustrated in Figure 2.1. These estimates were compiled by analyzing master plans of systems in each river basin. In some cases, master plans do not exist for some systems, which is a concern that we believe should be addressed.

According to the methodology section of Utah's Statewide Water Infrastructure Plan, when master plans were not available, estimates were made on their behalf. The absence of these plans is concerning as they are the means whereby long-term planning of these systems takes place. Without these, it is unclear how future capital project plans, including financing arrangements, get established.

> **Utah's Statewide Water Infrastructure Plan Methodology:**
>
> *"If master plans weren't available, an annual repair or replacement cost was calculated using the book value of water system infrastructure reported in an agency's financial statements published on the Utah State Auditor's website."*

During our follow-up discussion with the general managers for Utah's four major water conservancy districts, they explained that the missing master plans were typically a problem for public water systems, who are working with limited budgets. Therefore, finding the resources to acquire the technical expertise to develop plans was a major constraint on this progress. Without these master plans in smaller systems, Prepare60 had to use estimates for potential repair and

replacement costs, meaning the $38.2 billion figure could be more accurate. But the larger issue is simply that these smaller systems do not have master plans, which could negatively affect residents of those areas.

Failure to plan appropriately for infrastructure replacement was exhibited through a recent issue with Stockton Town's water treatment facility. In 2017, town leadership was aware of the treatment facility needing to be replaced after a consultant was hired and suggested the plant be replaced at a $2.6 million dollar price tag. A nearby wildfire in 2022 affected and halted plant operations and damaged their backup water well. After the fire, issues with the pipes, foundation, and plant roof were reported—all capital assets that repair should be planned for. Ultimately, the town received a grant through DEQ to address the emergency and loans to develop a long-term solution.

Other larger projects, like Utah's four major aqueducts that serve the Wasatch Front, are part of long-term plans for the systems that own them. Additionally, plans regarding environmental impact appear to be in place for those that are currently in design or construction phases. Therefore, our concern with the status of actions plans is focused on the local systems that likely lack the resources to plan appropriately.

Senate Bill 76 (2023 General Session) provides a possible example on how to address a lack of resources at the local level. It requires municipalities and counties, in their respective areas of code[11], to consult with the Division of Water Resources on water conservation goals and appropriates ongoing funding starting in fiscal year 2024 to the Division of Water Resources, the Division of Drinking Water, and the Division of Conservation to "assist cities, counties, districts, and water providers with coordinated water planning."

Capacity – In Process: The Department of Natural Resources is Studying Potential Financing Policies to Fund Repair and Replacement Projects and The Legislature Must Decide on These Policies

Replacement cost estimates of $20.6 billion from 2020 through 2070 is a serious challenge that lies ahead for Utah's water infrastructure. As shown in Figure 2.2, Utah's Coordinated Action Plan for Water shows that the responsibility for water projects going forward is increasingly that of state and local entities as federal funds have declined since their peak around 1980.

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[11] ***Utah Code*** 10-9-403(2)(f)(vi) and 17-27a-403(2)(f)(ii)

Figure 2.2 The Responsibility for Water Projects Is Increasingly That of State and Local Entities.

HISTORIC FEDERAL FUNDS

Many of Utah's large water projects such as the Central Utah Project and the Weber Basin Project were funded in part with federal dollars. However, since the 1980s, the federal government has contributed less to the development of water and wastewater capital projects, leaving states and local governments to find different ways to replace federal dollars.

State and local spending on capital projects has increased in part to offset declines in federal spending since the 1980s.
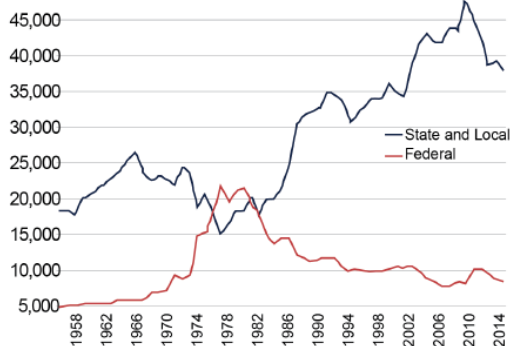
Source: Utah Foundation, Congressional Budget Office

Historically, water systems have relied on three major funding sources: water rates, impact fees, and property taxes.

> 🔍 **It is critical that emergency financing sources are in place for aging water infrastructure.**

As Utah's water systems embark on the major water infrastructure repair and replacement projects, financing policies need to be decided by the Legislature. Additionally, assurance that adequate emergency financing sources are in place, like grant programs utilized in the Stockton Town example in the previous section or loan programs, are critical as so much infrastructure is nearing or exceeding its engineered lifespan.

The use of property taxes as a major funding source for water infrastructure has become a policy issue that the Legislature is taking on as part of its long-term policy setting. During its 2023 General Session, the Legislature passed Senate Bill 34, which directed the Department of Natural Resources to study the use of property taxes to fund water infrastructure projects. Stated objectives of the study include:

- Investigate policies that ensure all users contribute to water infrastructure costs.

- Identify methods to develop rate structures that promote conservation and ensure reasonable revenue stability.

- Analyze the effect of eliminating or reducing property taxes as a funding source.

A written report on the Department's findings for this study is due October 2024, which will guide future policy on financing water infrastructure projects.

Given the lack of master plans for smaller water systems, additional expertise that can assist local water systems with developing and implementing these plans seems like a constraint. Without some additional expertise, entities that currently lack plans do not appear to have a spark that would change that trajectory.

Additional expertise may be needed by smaller water systems to develop sufficient infrastructure plans.

Monitoring – In Process: Monitoring of Costs Projections and Actual Spending on Repair and Replacement Would Be Beneficial

Understanding the extent that capital projects are being deferred for Utah's aging water infrastructure is a core issue associated with this risk area. Prepare60 has updated its Statewide Water Infrastructure Plan (SWIP) twice. The initial edition of the plan was published in 2013, and the subsequent updated version of the document was published in 2020. Over those seven years, cost projections for upcoming decades have changed and understanding the extent that this is happening would be insightful to understand the progress being made or unforeseen challenges that developed.

Figure 2.3 Cost Projections for 2021-2030 Increased From Below $3 billion in 2013 to More Than $3 billion in 2020. Several factors may influence this rise and would be good to monitor.
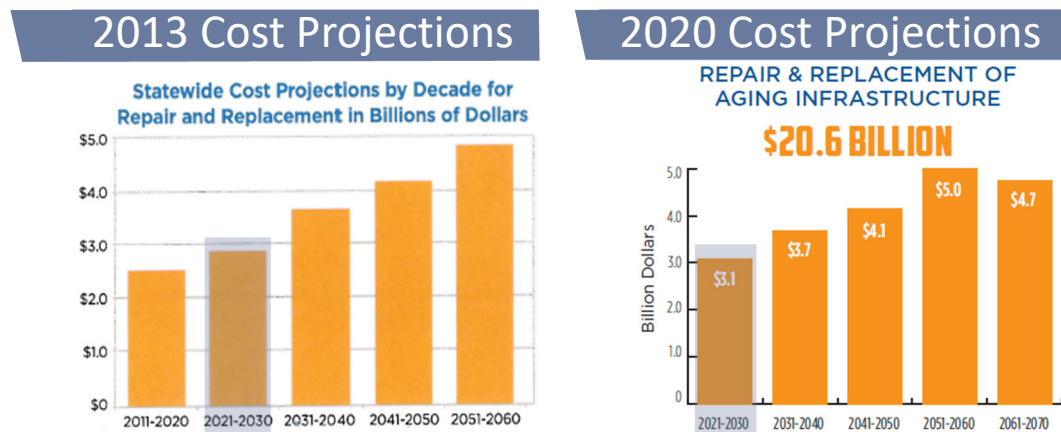
Source: Prepare60 2013 and 2020 Statewide Infrastructure Plans

Figure 2.3 shows how cost projections for the decade from 2021 to 2030 went from below $3 billion to over $3 billion. There may be several factors contributing to the rising cost estimates like inflation, deferred projects, need changes, etc. Therefore, we believe that such monitoring would be good to see how these estimates change with each of these periodic updates and some description of the cost driver.

As deferred capital improvements are likely to cause much of Utah's aging infrastructure to near or exceed its useful life, understanding how the projections in the cost estimates above compare with actual costs would be insightful. Shortfalls in actual costs compared to projected costs could be indicative of projects being deferred. This could be an insightful indicator to the Legislature to show whether progress is being made in repairing and replacing aging infrastructure, although we recognize that other factors influencing project deferment would also have to be considered (e.g., budget limitations, workforce limitations, or asset evaluations that result in extended life expectancies).

2.3 Concerns with Stormwater, Wastewater, and Drinking Water Systems Threaten Water Quality and Merit Further High-Risk Review

Late in our review, we became aware of risks with Utah's stormwater, wastewater, and drinking water systems. Diminishing water supply and increasing demands on these systems from population growth threaten water quality and drinking water. These risks could negatively impact the health and well-being of Utah citizens. As we were not able to review these concerns as in-depth as the other issues, we do not provide ratings for the four high-risk dimensions as we did in other areas. Instead, we summarize the concerns here, recognizing the need for further review as part of the state high-risk list.

To Consider for Further Review

Progress

Monitoring

Capacity

Action Plan

Area Not Yet Rated
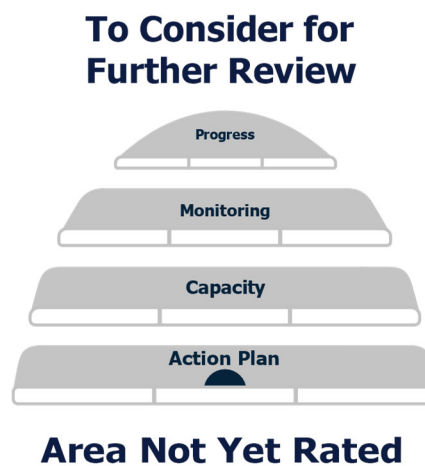
Aging Infrastructure Is a Significant Concern. The Department of Environmental Quality told us that the infrastructure in these systems is aging, as much of it was installed more than 50 years ago. Not only is it reaching the end of its useful life, but it also means a system designed for a smaller population is being relied on during a time of population growth and an increasing trend of extreme weather events. The Department told us that estimates to repair and replace this infrastructure are in the billions for the next 20 years, on top of the $38.2 billion mentioned previously in this chapter.

Population Growth Strains Current Systems. Population growth means a greater demand for drinking water, more wastewater, and less pervious surfaces for stormwater to infiltrate into the ground, straining the current infrastructure. As wastewater increases and the water supply diminishes, it means that pollutants are concentrated in the water for wastewater treatment plants to treat. This is adversely

Water quality could be adversely affected without changes to treatment, technology, and cost.

affecting water quality throughout Utah and GOPB reported in 2022 that additional treatment, technology, and cost are all needed to meet water quality standards.

Drought and Extreme Weather Events Compounds Existing Issues in the Water Systems. Apart from population growth and aging infrastructure, these water systems are also affected by natural risks, such as drought, flood, and wildfires. Droughts are causing more springs to dry up and increasing contamination. Flooding and wildfire can also put water infrastructure at risk. Stockton's drinking water infrastructure was impacted by both wildfire and flooding in a single summer, damaging the backup well and increasing the amount of sediment coming into the drinking water treatment plant. These concerns are compounded by population growth and the need to ensure that water systems have adequate water supplies, storage, and infrastructure to meet both daily and emergency needs, including for firefighting.

Emerging Contaminants in Drinking Water and Nutrients in Stormwater and Wastewater Increase Health Risks in Recreational Waters. Lastly, increasing federal regulations for emerging contaminants like PFAS, cyanotoxins, manganese, and others and increasing nutrients in stormwater and wastewater means more algal blooms and risks to human health in recreational waters. In sum, concerns with stormwater, wastewater, and drinking water systems thus threaten day-to-day water uses and recreational waters use.

1 K–12 STUDENT PROFICIENCY

Implementation Status

Progress — In Process
Monitoring — In Process
Capacity — Not Met
Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT
Injury or Loss of Life
Impaired Service Delivery
Fiscal Damages

PROGRESS – IN PROCESS
Despite improvement from 2021 to 2022, five of USBE's Education Elevated metrics indicate declining performance since 2016, particularly among economically disadvantaged students.

MONITORING – IN PROCESS
USBE and USHE have reports to monitor K–12 student proficiency; however, the monitoring of instructional practices and teacher effectiveness could be improved.

CAPACITY – NOT MET
More resources should be devoted to underrepresented students. Efforts in teacher improvement, teacher support, and community engagement can be strengthened.

ACTION PLAN – IN PROCESS
USBE has established a strategic plan and provides yearly updates on progress toward its education elevated metrics but is in the process of revising its plan.

POTENTIAL IMPACT

Many students exit public K–12 schools unprepared for higher education.

Students may forfeit their investments in higher education if they drop out.

2 AWARENESS OF EDUCATIONAL PATHWAYS

Implementation Status

Progress — In Process
Monitoring — In Process
Capacity — In Process
Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT
Injury or Loss of Life
Impaired Service Delivery
Fiscal Damages

PROGRESS – IN PROCESS
Access to USHE institutions by high school graduates has decreased since 2019; technical college enrollment is particularly low. However, completion rates have improved since 2019.

MONITORING – IN PROCESS
USHE monitors progress of access and completion metrics toward their 2027 goals. USHE's pathways team is developing a data and reporting framework for pathways monitoring.

CAPACITY – IN PROCESS
To align their efforts, USHE and USBE should agree on a definition for pathways. Greater student awareness about pathways is needed, and classroom capacity may need to grow.

ACTION PLAN – IN PROCESS
USHE's goals for improving access and completion are clear; however, the pathways team is still developing plans to make educational pathways clearer and more accessible.

POTENTIAL IMPACT

Seamless transferring and transition within education systems can be hindered.

Many students could obtain credentials that do not align with workforce demand.

WORKFORCE ALIGNMENT — TALENT READY UTAH

3

Implementation Status

Progress — In Process

Monitoring — In Process

Capacity — In Process

Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT

Injury or Loss of Life

Impaired Service Delivery

Fiscal Damages

PROGRESS – IN PROCESS
USHE aims to increase the proportion of graduates in high-wage programs, but the percentage has stagnated recently. Compared with universities, technical colleges underperform on this metric.

MONITORING – IN PROCESS
Talent Ready Utah has processes in place to monitor the effectiveness of its initiatives; however, alignment dashboards for USHE and USBE are still in development.

CAPACITY – IN PROCESS
Talent Ready Utah could benefit from ongoing funding to increase its workforce. Career and Technical Education faces challenges in aligning regional needs with programs offered.

ACTION PLAN – IN PROCESS
Under Talent Ready Utah and Career and Technical Education (CTE), USHE and USBE both have plans tied to improving workforce alignment, but CTE plans could be more defined.

POTENTIAL IMPACT

$ Poor workforce alignment may reduce a graduate's ability to meet living costs.

$ Workforce gaps could limit the growth of billion-dollar industries in Utah.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2022-16: An In-Depth Budget Review of the Salt Lake City School District

Report #2022-12: A Performance Audit of Curriculum and Teacher Training in Public Education

Report #2022-11: A Performance Audit of Utah's System of Higher Education Governance

Report #2022-08: Comprehensive Education Audit Capstone
- Includes seven audits spanning from 2020-2022.

Chapter 3
Better Preparation and Clearer Pathways to High-Yield Programs Can Improve Education's Return on Investment

Why Area Is High Risk

The Utah Foundation reported that cost of living is one of Utah residents' biggest concerns. An effective and efficient education system is an essential tool to address this risk as it can help citizens increase their earning potential. Students who do not access postsecondary programs may limit their earning potential, and those who fail to complete a postsecondary program may incur student debt that increases their costs without a credential that can significantly increase their earning potential. In addition, education helps at the statewide level by decreasing unemployment rates, poverty rates, and reliance on public assistance. Therefore, it is essential that Utah's K–12 system, which is overseen by the Utah State Board of Education (USBE) ensures that as many students as possible are academically proficient and have strong workforce skills when they transition to higher education. Improvement is needed in K–12 student proficiency. Additionally, the Utah System of Higher Education (USHE) must continue to develop and improve an effective set of workforce pathways that connect with the K–12 system and lead to jobs. These pathways can reduce student risk of noncompletion and poor earning potential by offering shorter "stackable" credentials and emphasizing programs that lead to high-yield, high-demand jobs. Figure 3.1 shows how ACT scores could correlate with bachelor's degree success, using ACT and USHE data.

Figure 3.1 Poor ACT Scores May Correlate with Poor Bachelor's Degree Attainment and Participation. Improving student proficiency is one way to improve college completion.
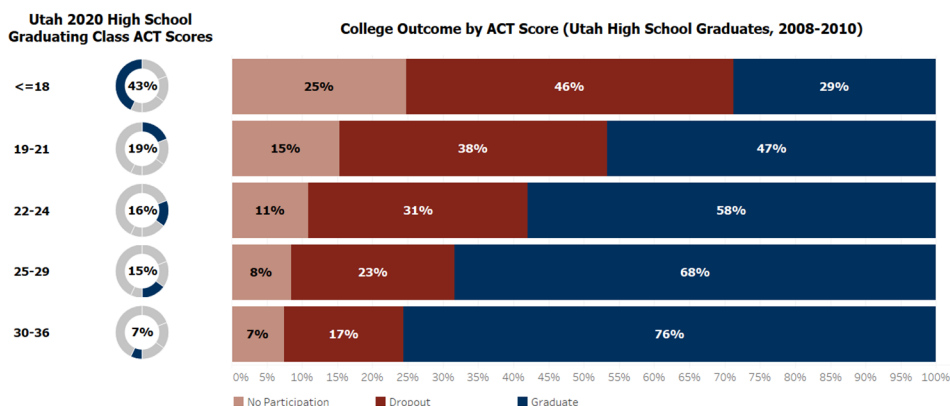
Source: Auditor generated – ACT; USHE

Among states who tested more than 90 percent of high school graduates, Utah's graduating class had the highest composite ACT score in 2022. Still, more than 40 percent of 2020 Utah high school graduates score an 18 or less on the ACT despite billions of dollars invested annually in public education. For high school graduates in past years, only 38 percent of them who scored an 18 or less on the ACT and enrolled in a bachelor's degree program completed their program and benefited from the significant wage premium associated with bachelor's degrees, as wages increase from $39,700 for those with some college to $61,600 for those with a bachelor's degree. If that completion trend continues for current high school graduates, it could be beneficial to guide some of them to options besides bachelor's degrees.

> **Income premiums resulting from education can help alleviate pressure from increasing costs of living, but not all students finish their degree.**

It is important to note that USHE considers factors besides ACT scores when assessing a student's readiness for college-level coursework,[12] so that students who may not test well can still be considered for college acceptance. However, many students could benefit from accessing higher education options other than the standard four-year degree. Increased participation in college readiness coursework[13] by USBE students is a positive development for awareness of these other options. Shown in red on Figure 3.1, some students may not be ready for a four-year degree, and many choose not to participate in a four-year degree. Further development of educational pathways by both USBE and USHE, along with increased awareness, can help these students access other higher education options that offer a wage premium and can mitigate cost-of-living concerns.

3.1 K–12 Student Proficiency Measures Show Mixed Progress Short of Their Goals

Despite improvement from 2021 to 2022, most of USBE's selected student proficiency metrics have decreased overall since 2016. USBE has action plans for improving these results and is currently working on developing a new strategic plan. There are also capacity concerns with the ability to focus resources (such as high-quality teachers, funding, and other supports) toward

Progress — In Process
Monitoring — In Process
Capacity — Not Met
Action Plan — In Process

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[12] This includes high school math grades, Accuplacer scores, and placement essays.

[13] Defined by USBE as having at least .5 credit in Advanced Placement, Concurrent Enrollment, International Baccalaureate, or Career and Technical Education concentrator coursework.

underrepresented and low-income students. Concerns related to monitoring are closely related to these capacity issues. Improving the scalability of strategies to identify high-quality teachers and improve teacher performance could help mitigate the capacity concerns.

Progress – In Process: Recent Increases in "Education Elevated" Metrics Are Promising, but Performance Still Lags below Goals

Five of USBE's seven student proficiency metrics decreased from 2016 to 2021, with the largest decreases in math and ACT scores.

Five of USBE's seven "Education Elevated" metrics have declined from their baseline 2016 rates. We recognize that the COVID-19 pandemic played a role in this and that increases in proficiency since the pandemic are encouraging. All of the metrics are below the targets they are supposed to meet in 2024[14],[15], suggesting room for improvement. The most recent update shows that some progress has been made since the pandemic; our review therefore gave the designation of an "In Process" status for the overall progress. Figure 3.2 shows data for four of the seven Education Elevated metrics.

Figure 3.2 Student Academic Proficiency Has Decreased Since 2016. Proficiency of economically disadvantaged students is below that of the average students and is declining disproportionately.
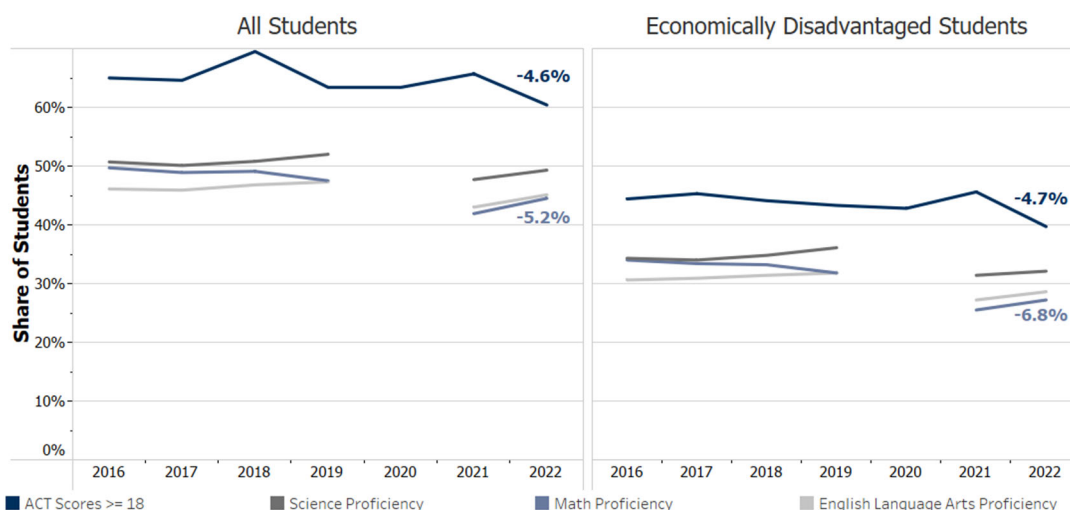
Source: Auditor generated – USBE yearly implementation updates
*2020 data for some metrics are missing as data was not available for that year.

Figure 3.2 highlights that the most significant declines in Education Elevated metrics occurred in math proficiency and ACT scores. This is particularly

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[14] USBE reported that it is currently updating the Education Elevated metrics and will release new ones.

[15] Per the scope of this review, we did not evaluate whether the selected targets are appropriate. We are reporting current status only; future evaluations could review these targets in more detail.

concerning because these metrics correlate with students' ability to succeed in high-yield, high-demand programs; poor performance in these metrics highlights a possible barrier to addressing the high cost of living in Utah. Importantly, eighth grade math proficiency has declined across the nation since 2019, but Utah actually has seen the smallest decline among all states. Still, there is a need for increased proficiency, especially among economically disadvantaged students.

Underrepresented students stand to benefit from improved student proficiency efforts.

Academic proficiency among students from economically disadvantaged backgrounds has consistently lagged behind that of the average student. Furthermore, Figure 3.2 shows that, for selected metrics, the decrease in proficiency since 2016 was worse among economically disadvantaged students than among all students. Improving the proficiency of economically disadvantaged students would create progress toward reaching the Education Elevated goals and it would provide these students with better opportunities for economic growth.

Action Plan – In Process: USBE Has a Strategic Plan in Place to Improve Proficiency and Other Student Outcomes, but Is Reviewing It

Following statutory requirements,[16] USBE has a strategic plan and provides yearly performance updates on it to the Legislature. USBE also holds themselves accountable through monthly reports on the strategic plan. The USBE Strategic Plan envisions that students can "succeed and lead by having the knowledge and skills to learn, engage civically, and lead meaningful lives." USBE promotes this vision by "advocating for necessary recourses, developing policy, and providing effective oversight and support."

The strategic plan also outlines strategies, such as promoting high-quality instruction and equitable access to effective teachers, which support reaching the selected goals. USBE's yearly implementation updates show how these strategies have been and will continue to be implemented. As USBE began reviewing this plan in April 2023, due in part to recommendations from OLAG Report #2021-04 (and is still in the midst of their review), we rate this area as "In Process" and will review the new plan in future iterations of the high-risk list.

Capacity – Not Met: Better Efforts to Improve Teacher Performance and Support Students Systemically Could Improve Student Proficiency

USBE leaders told us that more resources should be devoted to underrepresented students. However, efforts at both the state and local levels to identify high-

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[16] *Utah Code* 53E-2-202

quality teachers, improve performance, and place high-quality teachers where they are most needed have been underwhelming. OLAG report #2022-03 found that teacher evaluations are mainly focused on identifying poor performing teachers, rather than improving overall teacher performance. This leads to evaluation efforts that focus on a small percentage of teachers, leaving many teachers without personal improvement plans. Compounding this issue, USBE reported in 2020 that it is difficult to incentivize high-quality teachers to move to high poverty schools. Thus, it becomes even more important that internal improvement take place with the teachers that schools currently have. Improved support for teacher training as well as better coaching and feedback for teachers on high-quality instructional practices could be beneficial in developing more teacher leaders.

> **Because it is difficult to incentivize high-quality teachers to relocate, it is important that processes are in place to improve instructional effectiveness for all teachers.**

Additionally, USBE's internal auditors recently released an audit on the design and implementation of the educator licensing process. One conclusion they reached was that "high professional standards typically associated with a license may have been compromised." A relevant effect cited was a "decrease to already low system-wide proficiency rates of students in core subjects."

Beyond teacher effectiveness, there are other levers that can be used to improve student performance. Senate Bill 127 from 2022 provides a good example of this. Efforts stemming from this bill have shown an increase in reading ability for students who come from economically challenged backgrounds. Aimed at improving early literacy outcomes, the bill required USBE to provide statewide and regional literacy coaching and support, leverage community engagement in literacy, and use diagnostic assessments to target intervention for students struggling with certain reading skills. This suggests that student growth must be impacted from a systemic approach—with teaching, funding, community support, and professional support to teachers working in unison.

Monitoring – In Process: Monitoring of Teacher Shortages Can Improve

As reported in OLAG report #2021-13, monitoring of teacher shortages in Utah can improve. This could help address some concerns about capacity. Both USBE and USHE have mechanisms for monitoring progress in K–12 student proficiency. USBE focuses directly on K–12 proficiency, while USHE monitors remedial education. USBE's yearly implementation updates are one monitoring tool. Another is USBE's School Report Card program, which provides information at the state, district, and school level on the percentage of students who have met grade-level mastery of English language arts, mathematics, and

science on statewide tests. It also shows change over time in proficiency metrics and provides detail at the student group[17] and race/ethnicity levels.

USHE's role in K–12 student proficiency focuses on remedial English and math courses to prepare students for required college courses. The percentage of students who pass these classes has remained around 65 percent for the last five years. Recent efforts by USHE to redesign remedial education could help more students pass these courses. We found that an increasing number of students entering USHE institutions delay taking college-level English and math courses until later in their college career. This may need to be addressed if it is a barrier to graduation and leads students to lose time and money on an incomplete degree.

> **Delayed entry into required English and math courses could risk degree completion.**

3.2 Enrollment and Completion Rates Indicate the Need for Greater Student Awareness of Educational Pathways

Progress in this area is "Partially Met," as completion rates have improved across USHE, but those gains have been offset by lower enrollment in USHE schools.

USHE has a general plan for developing educational pathways, and a new pathways team is currently working on developing more detailed action items. Barriers to improving capacity are based on three concerns: 1) increasing student awareness of options other than four-year degrees, 2) improving pathways so that transferring is efficient among institutions and credentials are stackable, and 3) unifying all levels of education around a shared definition of educational pathways. In addition, the development of a data-collection and reporting framework by USHE's pathways team will be a significant step to improve monitoring for this area of concern. Because work on these barriers is underway, each dimension is rated as "In Process."
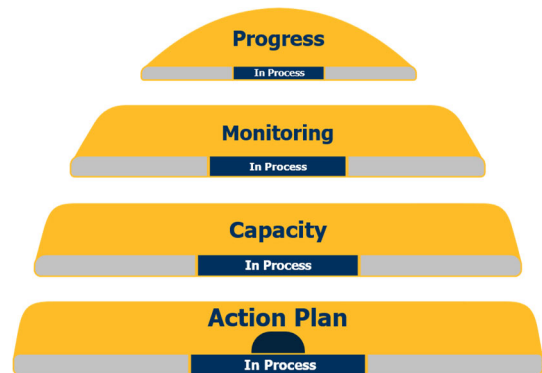
Progress
In Process

Monitoring
In Process

Capacity
In Process

Action Plan
In Process

Progress – In Process: Increased Enrollment to Technical Colleges Could Help Improve USHE's Decreasing Enrollment Rates

USHE has stated that the purpose for improving pathways is to "enhance student success, access, completion, and career readiness." In our opinion,

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[17] These groups include economically disadvantaged students, students with disabilities, English language learners, homeless, foster care, and military-connected students.

improving pathways means reducing student risk by breaking a four-year degree into smaller tasks associated with their own meaningful credentials. Thus, the section below discusses access to and completion of higher education, while the following section of this chapter discusses workforce alignment.

Decreasing enrollment rates under USHE's attainment goals indicate that the issues facing the students most at risk in this chapter (the "Dropout" and "No Participation" groups shown in Figure 3.1) are not being resolved. Currently sitting at 53.7 percent, the share of Utah high school graduates who enter a USHE institution would have to increase to 60.5 percent to reach USHE's 2027 goal.[18]

Enrollment in and completion of higher education include options beyond bachelor's degrees. Access to these other options can be improved.

Figure 3.3 The Number of Utah High School Graduates Who Participate in Technical College Can Continue to Improve.[19,20,21] This possible area of improvement could provide more students with shorter, more affordable education options that can lead to high-yield jobs.
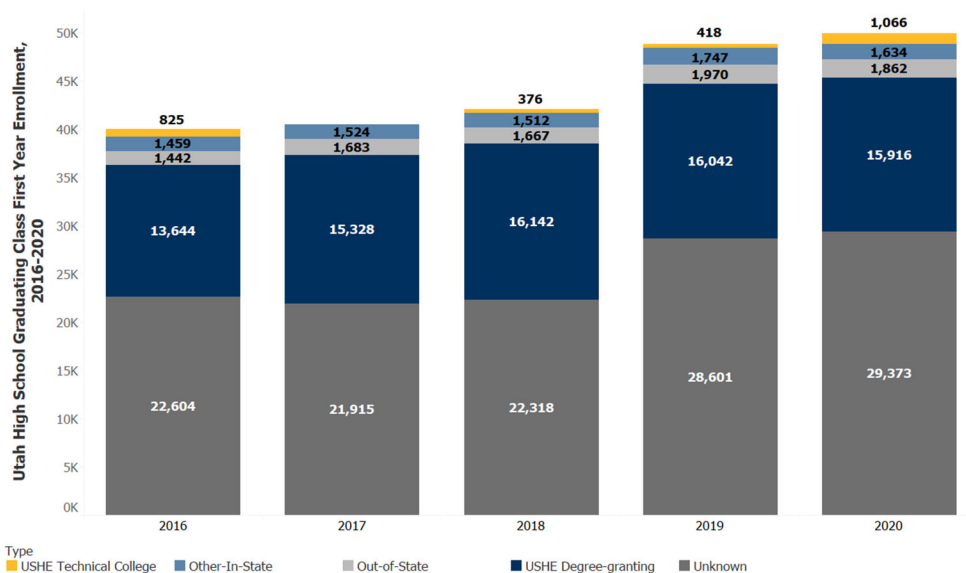
Source: Auditor generated – USHE High School Feedback Reports

[18] Our work reviewed whether the targets were in place; not the appropriateness of the targets.

[19] Some students enroll in multiple institutions and are included in the counts for both institutions.

[20] Specific data for USHE technical college enrollment in 2017 were not available, thus it does not appear in figure.

[21] The "Unknown" population includes students who serve two-year missions for the Church of Jesus Christ of Latter-day Saints. These do not represent all students who do not attend a postsecondary institution.

Figure 3.3 shows data from USHE High School Feedback Reports and highlights that Utah high school graduates generally lean toward enrolling in degree-granting institutions. From 2016 to 2020, only one year saw more than 1,000 high school graduates enroll in a technical college. USHE's strategic plan already has strategies in place to support student entry into technical education and increase students' knowledge about educational pathways other than bachelor's degrees.

Increasing knowledge about additional educational pathways is one way to help the "No Participation" group of students from Figure 3.1 to access higher education or guide the "Dropout" group in the same figure toward two-year degrees—possibly shrinking that group. While the overall enrollment of full-time, certificate-seeking students increased almost every year since school year 2016-17 at USHE technical colleges, the data in Figure 3.3 suggest that the increase in enrollment is not coming from high school graduates. Guiding recent high school graduates to these other options could help more students quickly get into a promising career path.

> **Increased access to two-year degrees and shorter certificates would benefit students who are not ready for four-year degrees.**

While overall enrollment has decreased, USHE's completion rate has increased and is on pace to meet the 2027 target. We emphasize our findings from a 2022 audit[22] of USHE that show these completion rates, while improving, are below national and peer averages, leaving room for improvement. With completion improving, progress needs to be seen in the share of high school students who enroll in the various higher education options. As not all students are ready for or interested in a four-year degree, increased knowledge about other pathways would be beneficial.

> **Although graduation rates are improving, a 2022 audit of USHE showed that they are below national and peer averages.**

Action Plan – In Process: Clear Goals and Strategies for Access and Completion Are in Place; Future High-Risk Evaluations Will Review Whether These Plans Foster Progress in These Areas

USHE's strategic plan provides clear goals for improving completion and access.

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[22] OLAG Report #2022-11: A Performance Audit of Utah's System of Higher Education Governance

- Completion: within five years, increase the timely completion of degrees and awards by 3 percent for all students and 4 percent for underrepresented students.

- Access: increase the rate of enrollment for all high school graduates and for underrepresented groups by 3 percent and 4 percent, respectively.

Supporting strategies for these goals prioritize the promotion of educational pathways. A new team at USHE began work earlier this year on a three-phase project to better understand these pathways and develop a detailed action plan for improving them.

Future high-risk evaluations will review whether these plans are achieving their goals. As detailed in USHE's strategic plan, efforts of the pathways team should improve Utah's educational pathways, making them more accessible and understandable, while smoothing the transition from technical colleges to universities. This includes improving the transferability of credits and the ability to stack credentials. "Stacking" means students can start with a certificate, move to an associate's degree, then to a bachelor's degree, and then continue to graduate degrees or other certificates if they desire. Increasing student awareness of these pathways is another strategy identified in USHE's strategic plan to help with access and completion. It is also a capacity concern addressed more fully in the next section.

Capacity – In Process: Student Awareness of Pathways to High-Yield, High-Demand Programs Should Increase

Because these specific efforts to develop educational pathways in Utah are in their infancy, educational partners in Utah are still addressing various capacity concerns. These include, student awareness, agreement on a definition for educational pathways, and the capacity to handle increased enrollment. As noted in the "Progress" section, recent high school graduate participation in pathways other than bachelor's degrees is limited, indicating that student awareness of other educational pathways is a concern.

Student awareness and understanding of educational pathways needs to increase.

Besides awareness, other capacity concerns that need to be addressed are the various definitions of pathways in Utah and the fact that many entities have their own pathways. USHE has recognized this issue and is leading cross-agency collaboration to address it. A significant step toward this unification was bringing Talent Ready Utah under USHE's umbrella, which is discussed in the

next section of this chapter. Ensuring that credits transfer efficiently within USHE and that pathways are clear are other strategies USHE is working on.

Monitoring – In Process: USHE Is Working on a Dashboard that Monitors Supporting Tactics to Achieve Completion and Access Goals

Click or Scan for *USHE Attainment Goal* Dashboard

USHE has a dashboard (found through the QR code to the left) that monitors the two main goals of completion and access. However, it is still in the process of developing a mechanism to show progress toward implementing the strategies that support those goals. While there are no specific metrics identified for monitoring pathways development, our review earlier in the report of technical college enrollment and where first year USHE students choose to attend provides potential options for monitoring.

While the two main goals provide some monitoring ability, the development of a data-collection and reporting framework, outlined in USHE's strategic plan, could help address the lack of monitoring specific to educational pathways. Such a framework should offer specific metrics to show progress in this area of concern as well.

3.3 Continued Workforce Alignment Efforts Are Underway to Provide More Students Access to High-Yield, High-Demand Programs

USHE's high-yield graduate metric—measured as the share of USHE graduates from high-yield, high-demand programs—has manifested little to no change since 2019. USHE recently solidified specific strategies and tactics to enhance workforce alignment efforts through Talent Ready Utah. Still, clearer plans from USBE for Career and Technical Education (CTE) could be beneficial. Ongoing funding and appropriate resources are capacity concerns for both Talent Ready Utah and USBE's CTE program. A dashboard to monitor Talent Ready Utah's efforts is under development; finalizing it could help with improving the effectiveness of workforce alignment efforts.

Progress
In Process

Monitoring
In Process

Capacity
In Process

Action Plan
In Process
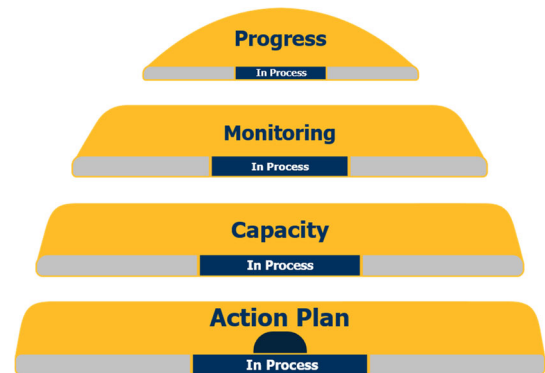
Progress – In Process: The Percentage of USHE Students Graduating From High-Yield Programs Has Stayed About the Same Since 2019

USHE's goals for this area are clear: within five years, increase the completion rate of all graduates and underrepresented groups in high-yield, high-demand programs by 3 percent and 4 percent, respectively. At the USHE level, the metric for high-yield graduates has stayed about the same since 2019, but is not on pace to meet the 2027 goal. Some institutions, however, have already met their goal for 2027. Institutional-level data also provide a glimpse of where improvement is needed.

Figure 3.4 Three USHE Institutions Have Already Met Their High-Yield Graduate Goal for 2027. Technical colleges tend to graduate a significantly smaller percentage of students from high-yield, high-demand programs.
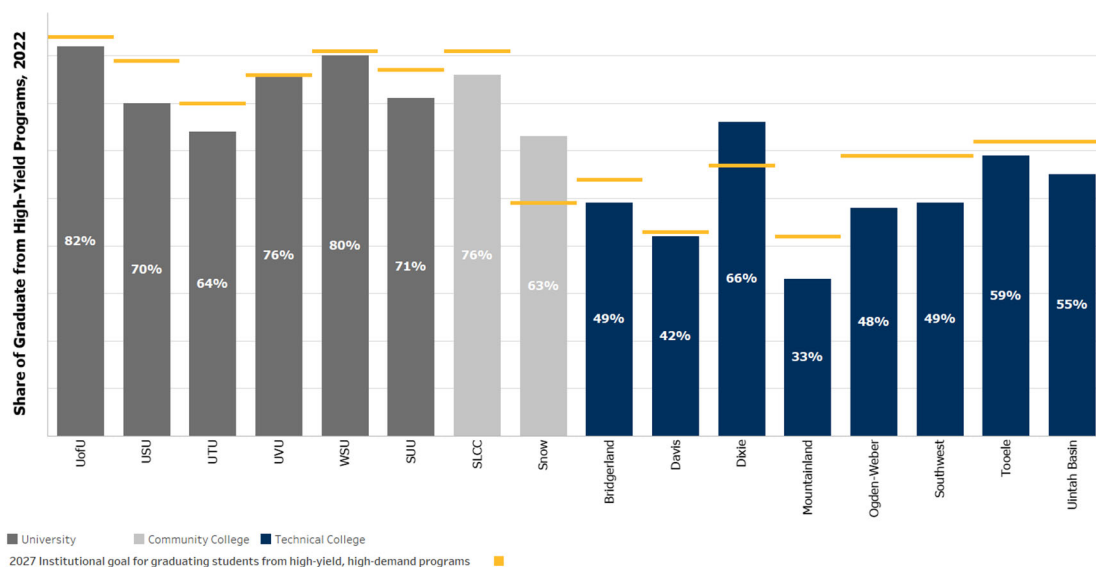
Source: Auditor generated – USHE Attainment Dashboard

As Figure 3.4 shows, three USHE institutions (UVU, Snow College, and Dixie Technical College) have already met their high-yield graduate goal for 2027. Therefore, improvement is needed at the other USHE institutions to meet their goals. The data in Figure 3.4 also show the difference between technical colleges and other school types in graduating students from high-yield, high-demand programs. Whereas universities and community colleges tend to graduate at least 60 percent of their graduates from these programs, only one technical college surpasses that percentage. Guiding more technical college students to high-yield, high-demand programs is an area of opportunity.

> **Nearly all USHE institutions can improve their share of graduates from high-yield, high-wage programs, but opportunities are greatest at the technical colleges.**

Action Plan – In Process: USBE Can Further Develop Its Plans to Improve Workforce Alignment

Talent Ready Utah is one of the driving forces behind workforce alignment. In USHE's strategic plan, Talent Ready Utah identifies strategies to improve workforce alignment, including:

- Engage industry to align education with workforce demands that result in career placement.

- Initiate industry feedback loops with the Utah Board of Higher Education.

- Increase stakeholder collaboration to develop and promote workforce programs.

- Increase student participation in high-quality work-based learning.

USHE also recently developed supporting tactics for each of these strategies.

USBE's efforts for workforce alignment largely revolve around their CTE program. Utah's Computer Science Education Master Plan outlines efforts to improve access to computer science programs. However, no formal plan is in place outlining USBE's other CTE efforts, except that each high school graduate is required to obtain one CTE credit. USBE leaders told us they are working to ensure that more students access CTE programs and exceed the one-credit graduation requirement. They are also working with local education agencies (LEAs) to ensure they offer CTE programs that are aligned with regional economic needs. USBE and USHE's efforts overlap in some ways as USBE collaborates with Talent Ready Utah on some of its pathway programs.

Capacity – In Process: Workforce Alignment Programs Can Be Expanded and Promoted to Help More Students Access High-Yield, High-Demand Programs

USHE's strategic plan provides insights into concerns about capacity. Programs that connect students to the workforce need to be 1) expanded and 2) promoted so that more students are aware of them and can access them. Ongoing funding could help Talent Ready Utah scale their operations. For example, Talent Ready Utah is looking to fund several more positions similar to its Statewide Apprenticeship Intermediary (House Bill 555 from 2023) which would coordinate apprenticeship efforts with specific industries.

For CTE, USBE would like more students to exceed the CTE one credit graduation requirement. USBE reported to us that only 16 percent of high school graduates are pathway completers (equal to three credits in one pathway), which

they would like to improve. USBE also wants to align its CTE offerings with regional economic needs. However, they told us that effort faces two challenges: 1) regions may not have teachers with the skills to teach pathways that align with economic needs and 2) LEAs choose what programs to offer, so they are not required to offer programs that align with regional economic needs.

> **Both the right teachers and LEA support are needed to align CTE pathways with regional needs.**

USHE's workforce outcome data suggest that there are opportunities to improve participation in shorter high-yield programs (for example, technical college programs). Workforce alignment efforts can facilitate these opportunities. The data show that the median annual salary for certificates in construction trades and engineering technologies, the two highest paying certificates, are more than $60,000. Still, from school years 2016-17 to 2020-21, more Utah students received a certificate in liberal arts and sciences, general studies, and humanities (13,201 awards) than in the top five earning fields combined (10,499).[23] Pathways and stackable credentials can guide students to these shorter programs.

While certificates in liberal arts and sciences, general studies, and humanities can lead to bachelor's degrees and career opportunities, the data show that some certificates offer a quicker return on investment while still leaving the door open for further educational opportunities. As noted above in section 3.2 of this chapter, building out these pathways and workforce alignment programs is not the only capacity issue. Student and parent awareness of such programs should be improved as well. Education leaders have recognized the complexity of navigating these pathways, which may contribute to a lack of student participation.

> **Both clearer pathways and increased student awareness of pathways could guide more students to underutilized high-yield programs.**

The capacity of USHE institutions to scale and handle additional students could be a concern if enrollment increases in coming years due to USBE and USHE efforts to increase awareness of pathways. As more students enter programs aligned with workforce demand, it may become necessary to ensure sufficient numbers of professors and classroom seats to accommodate the additional enrollment within USHE.

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[23] Data on certificates was downloaded from the Integrated Postsecondary Education Data System and 2021 was the latest data available on completions.

Monitoring – In Process: Talent Ready Utah Is Developing a Dashboard to Monitor the Performance and Effectiveness of Workforce Alignment Programs

Talent Ready Utah has processes in place on the backend to ensure that funding for workforce alignment efforts is effective. They do so by engaging with industry to identify workforce demand and which educational programs are needed to fill that demand. Talent Ready Utah then develops a business model for the various initiatives, goes through processes to prioritize the initiatives, and works with USHE stakeholders before beginning any initiative. Lastly, Talent Ready Utah uses a request for proposal process to determine which schools should receive funding and collects performance data on what the schools accomplish with the funding.

USHE's Attainment Dashboard tracks the high-level goal of high-yield graduates; however, dashboards specific to CTE programs and Talent Ready Utah initiatives are still under development. Developing these dashboards will help monitor important metrics for workforce alignment programs, which is vital for progress.

CHAPTER 4 Summary
Capacity Issues to Meet the Rise in Mental Health
Treatment Demand Need to be Addressed

LEGISLATIVE AUDITOR GENERAL

ACCESS TO MENTAL HEALTH SERVICES

1

Implementation Status

Progress — Not Met

Monitoring — In Process

Capacity — Not Met

Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT — Injury or Loss of Life — Impaired Service Delivery — Fiscal Damages

PROGRESS – NOT MET
The prevalence of mental health concerns was relatively stable from 2000 to 2015 but has risen quickly since then. At the same time, access to services has also become more challenging.

MONITORING – IN PROCESS
OSUMH monitors service provision and data through site visits and its Results Based Accountability dashboard. OSUMH's new 2024 RBA plan will have new metrics and specific targets.

CAPACITY – NOT MET
Workforce shortages, low funding, and insurance issues make access to mental health care difficult as half of both youth and adults with certain mental health needs do not receive treatment.

ACTION PLAN – IN PROCESS
The Utah Behavioral Health Coalition has recommended a governing authority be created to coordinate statewide behavioral health services. Local plans may need further review.

POTENTIAL IMPACT

Life and safety are at risk if access to mental health care is not improved.

Access to services is limited by workforce shortages and funding concerns.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2019-02: A Performance Audit of the Neuropsychiatric Institute and Crisis Services

Report #2017-11: A Limited Review of Sources of Funding and Expenditures for Homeless Initiatives

Report #2014-9: An In-Depth Budget Review of Department of Human Services

UTAH'S MENTAL HEALTH CRISIS SYSTEM

2

Implementation Status

Progress — In Process

Monitoring — In Process

Capacity — In Process

Action Plan — Met

Not Met | In Process | Met

HIGH RISK IMPACT
- Injury or Loss of Life
- Impaired Service Delivery
- Fiscal Damages
- $

PROGRESS – IN PROCESS
Suicide rates have been declining but are still well above national averages. Future reviews will see if suicide rates decline at the pace set by state goals.

MONITORING – IN PROCESS
Improved data submission will strengthen current efforts to monitor suicide rates and the services that individuals access in the crisis system. OSUMH will set specific targets by July 2024.

CAPACITY – IN PROCESS
Expansion of Utah's crisis system has been a focus of legislative efforts and funding in recent years. The system has expanded strongly but additional expansion is necessary.

ACTION PLAN – MET
Every local mental health authority has a yearly plan that is monitored by OSUMH but may require future review. The Utah Suicide Prevention Coalition has also released a statewide plan.

POTENTIAL IMPACT

Reducing suicide rates to the national average could save over one hundred lives.

A developed crisis system helps prevent suicide and saves millions of dollars.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

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Report #2014-9: An In-Depth Budget Review of Department of Human Services

Chapter 4
Capacity Issues to Meet Increased Demand for Mental Health Treatment Need to Be Addressed

Why Area Is High Risk

As the Utah Behavioral Health Coalition[24] has reported[25], Utah's behavioral health services are bifurcated across various systems, making it difficult to deliver consistent and efficient care. In addition, these systems tend to be siloed, creating an administrative burden to monitor them for efficacy and measure the full impact of services. Our review of this area focuses mainly on data from the county behavioral healthcare system that was readily available through the Office of Substance Use and Mental Health (OSUMH), which oversees the county system.

Services offered by OSUMH are only a portion of services offered across both public and private sectors.

We recognize that these data present only a partial view of all the services being offered by various programs and providers through public systems, the cash-pay market, and commercial insurance. The Utah Behavioral Health Coalition reported that improving equitable access to behavioral health services for all Utahns will require more system-level coordination across both public and private sectors and outlined possible ways to improve data sharing across these sectors. Future high-risk reviews could examine other systems to gain greater understanding of the breadth of services being offered and potential issues around progress, monitoring, capacity, and action planning in areas other than OSUMH and the county system.

Utah has lost more than six hundred individuals to suicide each year since 2015—more than double the number of deaths due to motor vehicles. Suicide is the leading cause of death for Utahns ages ten to twenty-four. In 2019, seventy Utahns were hospitalized for self-harm each day, and hundreds of thousands more reported experiencing adverse effects of mental health issues. A quarter of all Utah adults have at least seven poor mental health days in a given thirty-day

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[24] The Behavioral Health Coalition is a team of professionals from OSUMH, the Legislature, local mental health authorities, and other public and nonprofit organizations working to improve equitable access to behavioral health treatment in Utah.

[25] Utah Behavioral Health Coalition, Utah Behavioral Health Assessment and Master Plan DRAFT, July 2023

span, and a quarter of students in grades 6–12 have high mental health treatment needs.

Amid this rising prevalence of mental health concerns, many individuals are not able to access the services they need. Using data from 2018–19, Mental Health America released a report in 2022 that estimates that 40 to 50 percent of Utah youth and adults with a mental illness did not receive treatment in that timeframe. Another reason mental health issues are considered high risk is because their impact is not isolated; mental health challenges can be a barrier to improving other high-risk areas, impacting other factors of quality of life. For example, 61 percent of state employees reported their productivity was affected by their mental health. Furthermore, the prevalence of mental illness among youth and young adults impacts educational success.

4.1 Decreasing Access to Mental Health Services amid Rising Mental Health Needs Is Concerning

For more than two decades, the prevalence of mental health concerns in Utah remained stable, but that prevalence for both youth and adults has increased sharply since 2017. About 25 percent of Utah's youth and adults need mental health services, while access to these services has become increasingly difficult. Many entities provide mental health services in Utah and have plans to improve those services. However, there is no single governing authority coordinating the efforts of all these entities. Despite the gap in services to meet mental health demands in the state, there is not a full understanding of which services need to be bolstered because of the many entities currently offering services. Coordination of efforts is critical to delivering consistent, effective, and sufficient care across all service offerings. The Utah Behavioral Health Coalition has stated that a new governing body could be a way to provide this coordination. Doing so could help develop greater understanding of both service efforts and needs while addressing policy questions and concerns about sustainable funding.
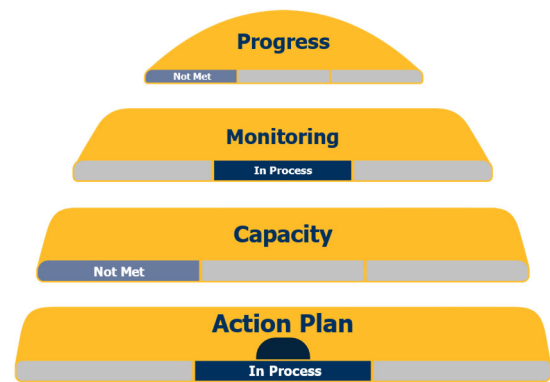
Progress – Not Met: The Prevalence of Mental Health Concerns Has Increased in Recent Years

The percentage of both youth and adults in Utah who experience high mental health concerns increased sharply from 2017 to 2021. During the same time, the

number of youths who accessed state or local mental health services[26] decreased, as shown in Figure 4.1. This trend has persisted despite Utah having one of the lowest rates of children[27] whose insurance does not cover mental health services. Such a pattern may suggest ongoing stigma and awareness concerns surrounding mental health treatment.

Figure 4.1 Mental Health Concerns[28] Have Increased at the Same Time Access to Services Has Decreased for Youth. Adults are increasingly accessing mental health care, while access among youth is declining.

Adults reporting seven or more days of poor mental health in the past 30 days
Individuals Accessing State Services
Percentage of youth with high mental health treatment needs
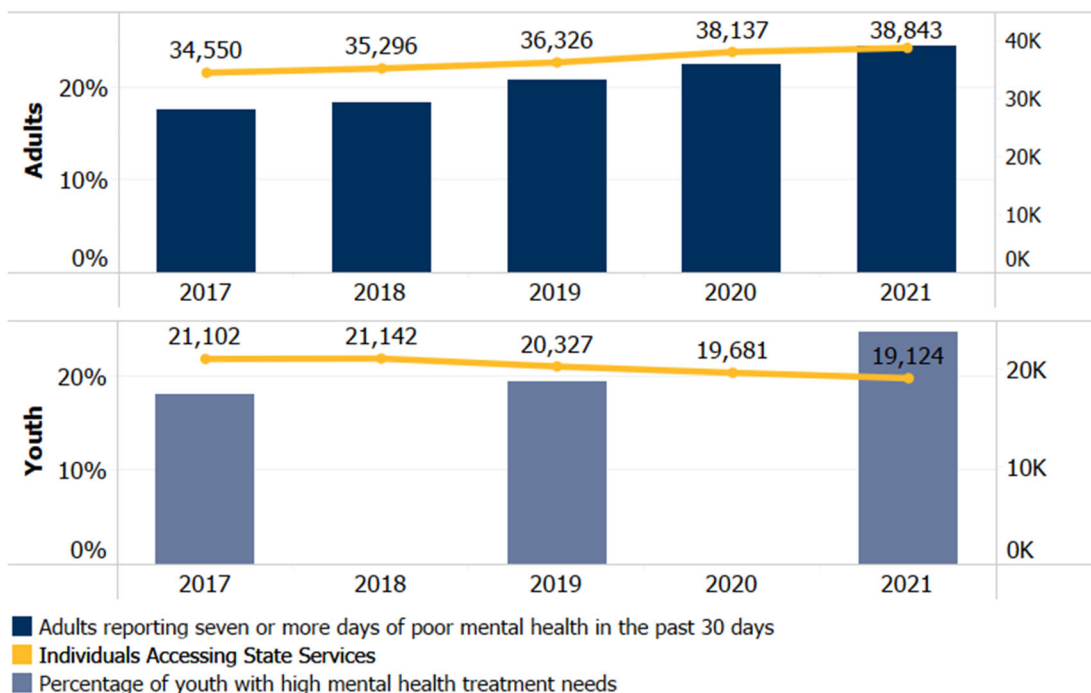
Source: Auditor generated – Division of Substance Use and Mental Health; Mental Health America

As Figure 4.1 indicates, almost a quarter of both youth and adults experience mental health concerns. This is an increase of over 35 percent for both youth and adults since 2017. In 2019, Utah's average proportion of adults with mental health concerns surpassed the national average for the first time since 2005. While this rate had been increasing steadily since 2005, the recent accelerated growth of mental illness that pushed the state ahead of the national average is concerning.

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[26] Data are not readily available to show access to private services and other public services through different programs. Thus, our review focuses on limited state-level data that OSUMH releases.

[27] Mental Health America, The State of Mental Health in America 2022, (October 2021)

[28] For youth, mental health concerns are specified as "high mental health treatment needs."

Action Plan – In Process: A Single Governing Authority May Be Necessary to Oversee Behavioral Health Services in Utah

With various existing plans to address mental health concerns, and behavioral health care services offered by many different entities (both public and private), coordinating effective and efficient service delivery is difficult.

> **Utah Behavioral Health Coalition:**
>
> *"Having multiple behavioral health administrative and service delivery systems contributes to well-intentioned but often siloed approaches to addressing system needs. Some of these initiatives stem from the desire to attend to specific behavioral health needs of certain populations, and others are emerging as alternatives to administratively complex public and private systems. However, when these efforts are developed or implemented without coordination or consideration of their impact on the larger behavioral health system, they can result in increased challenges, inefficiencies, and lost opportunities for broader positive impact."*

To address the siloing of services and improve systemwide and cross-sector coordination, the Utah Behavioral Health Coalition recommended the creation of a single governing authority to oversee the effective alignment of Utah's behavioral health systems. The coalition also offered several ideas for improving data sharing across sectors.

In line with current statute, local mental health authorities have developed plans for service delivery related to general mental health services, including case management and consultation, community supports, and public education services. This model of decentralized plans, however, could be augmented by a statewide centralized plan to coordinate the many entities involved in mental health.

Capacity – Not Met: Nearly Half of Utah Adults and Youth with a Mental Illness Do Not Receive Adequate Mental Health Services

The following points illustrate general capacity concerns for Utah's mental health provision:

Nearly half of Utah's adults and youth with mental health needs do not receive services or treatment.

- 50 percent (307,000) of Utah adults with a mental illness do not receive treatment.

- 45 percent (25,000) of Utah youth with major depression do not receive treatment.

- The federal Health Resources and Services Administration has designated eight of Utah's thirteen local mental health authorities as workforce shortage areas.

While workforce shortages play a role in unmet mental health needs, other factors are also present. These include a lack of sustainable funding, stigma surrounding mental health issues, unanswered policy questions regarding the role of county authorities, and limited insurance coverage.

More Sustainable Funding Is Needed: Local mental health authorities (county systems) receive state funding, and OSUMH oversees the expenditure of those funds and related services. These local mental health authorities serve unfunded and funded clients, as well as clients with and without Medicaid. The Utah Behavioral Health Coalition reported that current funding is not sufficient to provide services to all those in need. Projected population growth in Utah heightens the concern. Part of this issue is related to policy questions about the role of county mental health services.

Stigma Surrounding Mental Health Issues Exists: While stigma about mental illness has lessened over the years, stakeholders told us that it is still a significant issue that prevents individuals in need from accessing care. The Utah Behavioral Health Coalition reported that stigma may be a stronger influence in certain populations than others, such as "residents in rural areas, active military and veterans, homeless populations, persons in the criminal justice system, and some families accessing child and family services."

Policy Questions Exist Outside OSUMH and the County System: When Utah's county-level mental health services were developed, they were the only entity responsible for those public services. Since then, the state has developed many other programs, primarily funded through Medicaid, that fall outside the work of OSUMH and the county system, but statute does not reflect this. Medicaid also contracts with private providers. These new programs bifurcate public funding for mental health services, making it challenging to coordinate service delivery. Meeting the mental health service needs for all Utahns cannot be accomplished by OSUMH and the county system alone.

These multiple access points (public, commercial, self-pay, schools, etc.) also diffuse service delivery data, making it hard to fully understand which services need to be bolstered more than others and where funding should be directed. Thus, questions remain about how the various service providers fit in the county system outlined in statute. There are also questions regarding who coordinates efforts among all the behavioral healthcare entities to provide services.

Limited Insurance Coverage Exists in the Private Market: With regard to cash pay and other providers of mental health services, Utah's Office of Professional Licensure reported survey results showing that the proportion of practitioners accepting private insurance is lower than the proportion of consumers covered by private insurance. This gap is where self-pay providers step in. That same survey found that 60 percent of the behavioral health practitioners who took the survey accept full self-pay, as do 85 to 90 percent of independent practitioners.

Monitoring – In Process: OSUMH's Monitoring Efforts Would Benefit from Having Specific Targets Tied to the Metrics They Monitor

Different teams evaluate local area plans for comprehensive mental health service delivery and compliance with state policies, although we did not review these evaluations. OSUMH supplements these efforts with scorecards that show the number of clients served and whether the local authority met certain goals related to service provision and utilization. Lastly, OSUMH has several dashboards that track service provision efforts and aggregate mental health metrics.

OSUMH's data portal has dashboards that track the use of mandated services such as case management and peer support. There is also a dashboard monitoring their prevention and early intervention efforts. In addition, OSUMH's Results-Based Accountability dashboard monitors various aggregate metrics related to mental health prevention efforts and service provision. This dashboard can be viewed by clicking on or scanning the QR code to the right. It provides tracking of the two main metrics listed under progress: 1) the percentage of Utah adults who are affected by mental health symptoms for at least seven out of thirty days, and 2) the percentage of youth with high mental health treatment needs. The dashboard also includes other process metrics that support reaching the outcome goals. Neither the process metrics nor the main two metrics have targets; OSUMH plans to establish goals for these metrics by July 31, 2024, and will release a new Results-Based Accountability plan for 2024.

Click or Scan for *OSUMH 2023 RBA* Dashboard

4.2 Recent Statewide Efforts to Reduce Suicide Rates Have Made a Difference, but Continued Development of Utah's Crisis System Is Necessary

Utah's suicide rates for males and females have been on a downward trend since 2018, but remain well above national averages, which is concerning. The

Legislature has targeted many resources to develop a crisis system that includes various stages that triage patients with emergency mental health needs. This system ensures that they receive the proper level of care and helps prevent suicide. OSUMH is working to further develop Utah's crisis system as more capacity is needed to meet all the state's mental health demands. OSUMH oversees the work of local mental health authorities who provide crisis services in the county system. Sustainable funding and workforce shortages remain as barriers to fully developing the crisis system. There is also a need for improved data reporting from rural communities to support decision-making on how to address crisis needs in those areas.
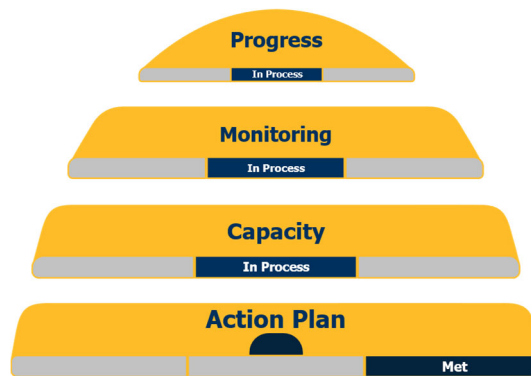
Progress – In Process: Utah Suicide Rates Are Declining but Are Still Well Above National Averages

Utah's suicide rates have been steadily declining since 2018, although they remain well above the national average for both males and females. As shown in Figure 4.2, the male rate has been consistently about 50 percent higher than the national average, while the female rate is about 60 percent higher. Reducing Utah's rates down to U.S. averages would mean an estimated two hundred saved lives each year (about 150 male and 46 female).

Figure 4.2 Suicide Rates
Utah Male and Female Suicide Rates Remain Well Above National Averages. If the Utah rates were to continue declining to match the national average, an estimated two hundred lives could be saved each year.
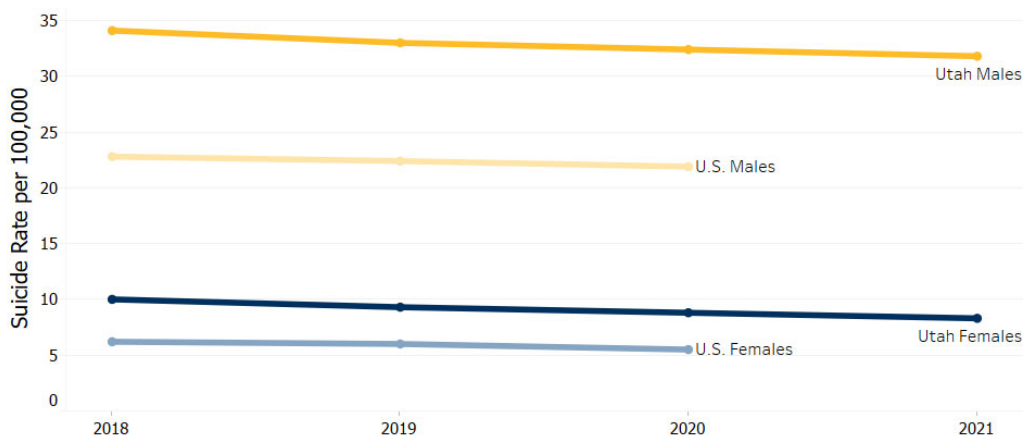
Source: Auditor generated – Department of Health and Human Services

OSUMH has set goals for Utah's male suicide rate to decline by 1 per 100,000 each year and for the female rate to decrease by .5 each year. As these goals were

set for the years 2022-2027, data are not available to track progress, but we can look at the goal retroactively. For example, since 2018, the male suicide rate in Utah dropped by that rate only once, while the female suicide rate has dropped by .5 every year during the same time. Thus, the male goal represents room for progress.

Action Plan – Met: Local Plans Are in Place and May Require Further Review in the Future

Statute[29] requires that local mental health authorities submit yearly plans that outline funding and service delivery for crisis system services, including inpatient, residential, and outpatient services; 24-hour crisis care centers; and rehabilitation services. Each local mental health authority has submitted a plan for 2023, which is reviewed by OSUMH. Per the scope of our initial work for the high-risk list, our audit team did not conduct a full review of the local mental health plans; however, such a review may be necessary in the future if capacity and monitoring concerns are not addressed. While these plans create a decentralized model for crisis system development, the Utah Suicide Prevention Coalition's plan for the years 2022 to 2026 provides some centralized guidance.

Local mental health plans are in place; an in-depth review of them may be necessary in the future.

OSUMH collaborated closely with the coalition in the development of this plan. The relevant parts of the plan regarding the crisis system include goals to:

- Increase the number of organizations with policies and procedures for suicide screening based on best practices, including evidence-based screening and assessment tools.

- Increase the number of organizations and individual providers that use evidence-based treatment to treat suicidal thoughts and behaviors directly.

- Utilize data to evaluate community need for crisis services, and continue to build out the crisis services continuum, as shown in the infographic on the next page.

- Increase the number of organizations implementing safe care transitions after suicide-related psychiatric hospitalization and emergency

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[29] *Utah Code* 17-43-301(6)(a)(ii)

department discharge, such as warm handoffs, caring contacts, and follow up procedures.

Besides helping to develop the plan, OSUMH also supports its success by requiring that plans of local mental health authorities include strategies and programs for suicide intervention that are evidence-based and align with the coalition's plan.

Capacity – In Process: Substantial Development in Utah's Crisis System Has Taken Place

Through recent legislative bills and funding, Utah's crisis system has developed quickly to address capacity issues that a consultant identified in 2018. Some of Utah's developments and reforms are leading the nation. The Utah Behavioral Health Coalition's recent report, however, shows that gaps still exist in funding and workforce capacity.

The graphic on the right depicts the different levels of Utah's crisis system and how individuals are triaged. For example, crisis call centers stabilize 90 percent of their calls and then 10 percent go to an MCOT team. The MCOT teams then stabilize 75 percent of those escalated calls, while 25 percent are taken to a crisis facility. That same pattern continues down the cone. There are capacity concerns in these areas as certain communities lack access to some services due in part to workforce shortages. Cross-agency efforts are underway to expand the workforce and fill more positions with mid-level professionals.

Crisis Call Centers
Stabilize 90%

Mobile Crisis Outreach Teams (MCOT)
Stabilize 75%

23-Hour Observation Recliners in Urgent Care Centers
Stabilize 55%-70%

Subacute Hospitalization Beds
Stabilize 80%-90%

Acute Inpatient Hospitalization
Stabilize 100%

A fully developed crisis system helps prevent suicide by providing rapid response and support services appropriate to patients' needs. It also cuts costs by reducing the unnecessary involvement of law enforcement and emergency rooms in certain mental health cases.

Monitoring – In Process: Data Submission from Rural Communities Could Improve

While Utah's crisis system and suicide rates have various levels of monitoring, a lack of data submissions from rural communities remains a concern. On top of annual site visits that OSUMH conducts at each local mental health authority, we were told that those local authorities are also evaluated by other federal, state, and private teams to ensure that area plans are sufficient and service provision is in line with state and federal policies. Our audit team not review the adequacy of those evaluations. Local authorities provide action plans to address any deficiencies that are found and OSUMH's yearly monitoring reports provide follow-up for those action plans.

Another aspect of monitoring comes in the form of aggregate data tracking in OSUMH dashboards. OSUMH's Results-Based Accountability dashboard tracks suicide rates, workforce, training, and the number of individuals served by the crisis system. The latter two indicators have minimal data and no corresponding targets. Targets should be selected to facilitate the evaluation of the data. OSUMH said a new plan will be finalized by July 31, 2024.

Click or Scan for
OSUMH Data Portal
Dashboard
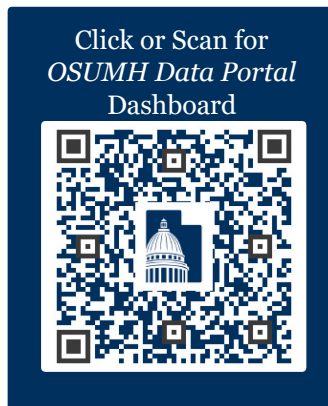
OSUMH also maintains dashboards for specific areas of the crisis system, such as receiving centers and MCOTs. These dashboards (see the link to the left) allow users to explore detailed data about where patients come from, what they are treated for, and whether the services they accessed were successful. These dashboards provide useful information; however, we were told, and our own observations noted, that data submission from rural communities could be better. Missing or inaccurate data can hamper decision-making of administrators and public health experts who analyze the trends to identify areas with urgent needs.

1 METHAMPHETAMINE AND FENTANYL OVERDOSE

Implementation Status

Progress — In Process

Monitoring — In Process

Capacity — In Process

Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT

Injury or Loss of Life · Impaired Service Delivery · Fiscal Damages

PROGRESS – IN PROCESS
Prescription opioid overdose deaths have declined, but overdose deaths due to meth and fentanyl have been replacing them, increasing by 100 percent and 37 percent respectively.

MONITORING – IN PROCESS
The Office of Substance Use and Mental Health and the Utah Drug Monitoring Initiative both release reports or dashboards to monitor data. They could benefit from selecting specific goals.

CAPACITY – IN PROCESS
Workforce capacity is a concern in this area, as recruitment and retention efforts have been mixed. But progress has been made in increasing funding and prevention efforts.

ACTION PLAN – IN PROCESS
All local substance use authorities have submitted their annual plans but may need further review. The Behavioral Health Coalition recommends creating a statewide governing authority.

POTENTIAL IMPACT

Drug poisoning deaths (531) claimed more lives than motor vehicle and firearms.

Only one in ten Utahns with a substance use disorder are treated, per estimates.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2020-08: A Performance Audit of Utah's Juvenile Justice System

Report #2017-11: A Limited Review of Sources of Funding and Expenditures for Homeless Initiatives

Report #2014-9: An In-Depth Budget Review of Department of Human Services

Chapter 5
Substance Misuse
Continues to Take Utah Lives

Why Area Is High-Risk

Drug poisoning deaths have been the leading cause of injury deaths in Utah since 2002—approximately the same as the number of deaths from motor vehicles and firearms, as reported by the Utah Drug Monitoring Initiative in Figure 5.1. Fatal overdoses have gone up and down over the past 10 years, ranging from a low of 495 (2019) and a high of 585 (2021), but decreased to 531 in 2022. Additionally, both capacity and monitoring issues need to be addressed as fewer certified individuals are working at the state level and some metrics that track substance use concerns do not have targets that provide benchmarks and goals.

Figure 5.1 Injury Deaths from Drug Poisoning Outnumber Motor Vehicle and Firearm Deaths Combined. A decline in deaths in 2019 is promising, but not all substance use concerns are resolved.
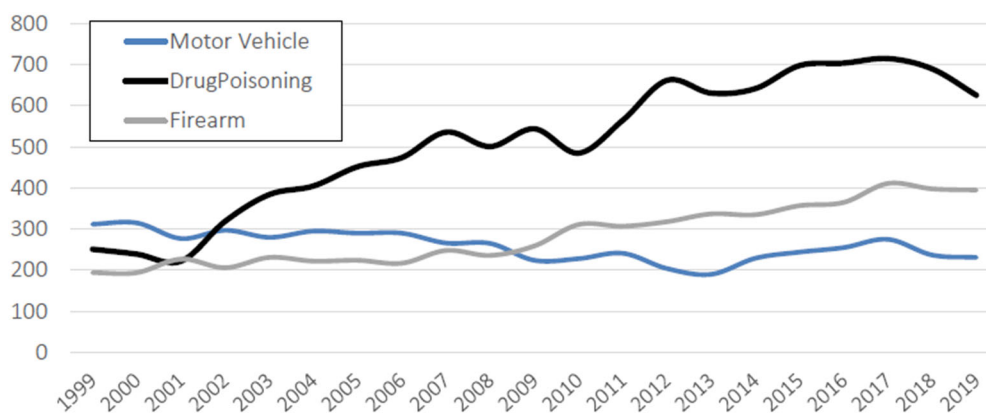
Source: Drug Monitoring Initiative

Prescription opioids have begun to decline as the leading cause of drug deaths (Figure 5.2), but other drugs are offsetting this progress. Methamphetamine (meth) was the most frequently reported drug during admission to state drug treatment centers from 2015-2020 and the recent rise of overdose deaths due to meth and fentanyl is concerning. Their share of drug overdose deaths has spiked since 2019, growing by 10-15 percentage points.

Substance use also has an economic impact. The National Center for Drug Abuse Statistics reported that Utah's drug rehab outpatient services cost nearly $46

million each year and $115 million ($57,000 per patient) is spent on residential treatment each year. It is estimated that only one in ten individuals with a substance use disorder in Utah receive treatment.

5.1 Methamphetamine and Fentanyl Overdose Deaths Have Risen While Others Have Declined

Efforts to combat the opioid epidemic have shown progress in recent years, but some of that progress has been offset by increased use of meth and fentanyl. While local authorities have developed and submitted treatment and prevention plans to the state, progress appears constrained by challenges developing a sufficient workforce to provide treatment services. Capacity concerns revolve around workforce shortages, and specific targets would be beneficial to enhance monitoring efforts. The review of the high-risk dimensions below provides details on areas for growth in each dimension.

Progress — In Process

Monitoring — In Process

Capacity — In Process

Action Plan — In Process
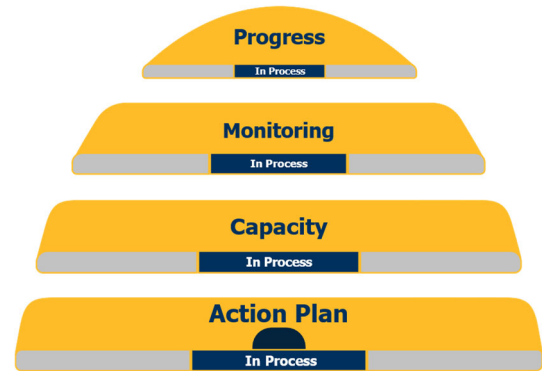
As the Utah Behavioral Health Coalition reported in their draft Master Plan released in July 2023, substance use disorder services are provided by multiple programs (local substance use authorities, Targeted Adult Medicaid, and Utah Medicaid Integrated Care). The report stated that this can create an administrative challenge for evaluating data and understanding the full impact of all initiatives if data from each initiative is not shared and aggregated between initiatives.

Our review focuses on local substance use authority data collected by OSUMH since it was the most readily available. This does not cover the whole picture of substance use services. Future high-risk reviews could examine other systems to gain greater understanding of the breadth of services being offered in those areas and potential issues around progress, monitoring, capacity, and action planning that could exist.

Progress – In Process: Prescription Opioid Overdoses Have Declined amid Rising Methamphetamine and Fentanyl Overdoses

As declines in prescription opioids demonstrate some progress on reducing illicit drug deaths and the total number of overdoses decreased from 2021 to 2022, the rise in meth and fentanyl deaths from 2016 to 2020 is a concern warranting a partially met status. As shown in Figure 5.2, overdoses for both have increased in recent years, with a large spike in fentanyl from 2019 to 2020.

Figure 5.2 Methamphetamine and Fentanyl Overdose Deaths Have Increased in Recent Years. Overdose deaths attributed to other drugs have been declining.
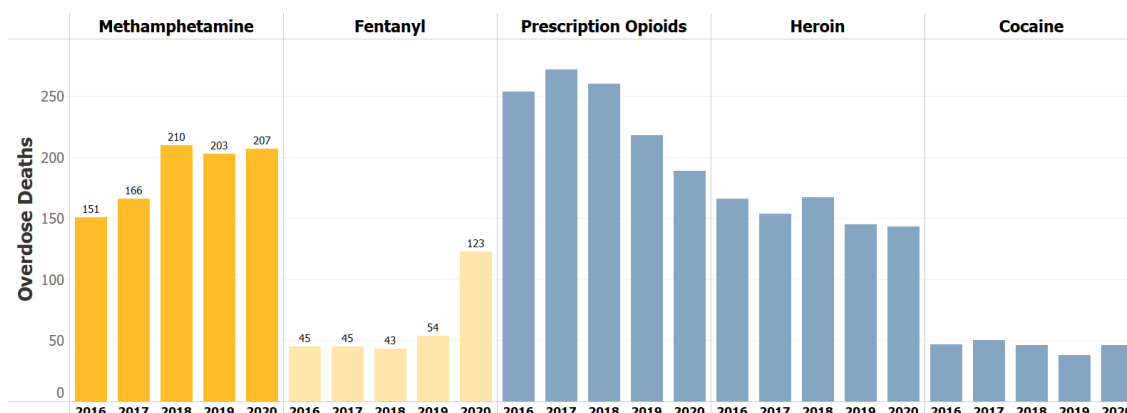
Source: Auditor generated – Drug Monitoring Initiative
Drug categories are not mutually exclusive.

While meth and fentanyl (yellow bars) have increased, overdoses from other drugs (blue bars) have been declining or stagnant. For the period from 2016 to 2020, annual deaths due to meth overdose increased by 37 percent. An alarming increase in fentanyl took place from 2019 to 2020 as related deaths more than doubled in a single year. While preliminary data show that drug overdose deaths decreased from 2021 (585) to 2022 (531), continued attention is needed on meth and fentanyl use and overdoses.

> **Overdose deaths from fentanyl more than doubled from 2019 to 2020.**

Action Plan – In Process: Future Reviews of Local Substance Use Plans May Be Necessary

Statute[30] requires every local substance use authority to submit an annual plan that provides for treatment services and prevention efforts, creating a decentralized model for service delivery. Utah's 13 local substance use authorities met this requirement for fiscal year 23. The Office of Substance Use and Mental Health (OSUMH) reviews and approves these plans to ensure they offer a continuum of care.[31] Local authorities submit action plans to address any deficiencies that OSUMH identifies and these action plans are followed up on the following year.

We did not do a full review of these plans as it was not within the scope of this initial high-risk assessment. Thus, further review of the local plans for efficiency and effectiveness could be something for future review if progress is not seen. In addition, while this decentralized model is in place and in line with statute, the

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[30] *Utah Code* 17-43-201(5)(b)(i-ii)

[31] *Utah Code* 26B-5-102(2)(c)(xi)

Utah Behavioral Health Coalition recommended a governing authority could help improve the state's behavioral healthcare coordination.

Capacity – In Process: OSUMH Oversees Some Substance Use Services, but Current Data Systems Do Not Show the Impact of Other Initiatives

Several metrics that track workforce issues and supportive services for preventing substance abuse are found in OSUMH's Results-Based Accountability Dashhboard and show mixed results. For a workforce example, the number of certified individuals under OSUMH's purview has gone up and back down since 2019, showing that recruitment and retention can be challenging. Additionally, the number of certifications OSUMH oversees related to substance use and mental health were the same in 2022 as they were in 2019.

OSUMH's updated Results-Based Accountability plan for fiscal year 2024 will contain specific targets.

Regarding supportive services, the percentage of clients that are connected to support groups by the end of their substance use treatment episode decreased from 33 percent to 25 percent from 2019 to 2021. In contrast, the number of clients receiving Supported Employment Services has almost doubled in the past few years, as has the number of referrals to the Syringe Service Program. The distribution of naloxone kits, used to reverse opioid overdoses, also rose by almost 20,000 from 2019 to 2021.

Monitoring – In Process: OSUMH Plans to Set Targets for Several Metrics by July 2024

OSUMH and the Utah Drug Monitoring Initiative both monitor selected metrics related to drug use. OSUMH is currently developing a new Results-Based Accountability plan for fiscal year 2024. The 2023 version of the plan did not included targets for some of the selected tactics, but OSUMH told us that this new one will. Selecting targets is a key part of monitoring because it allows progress to be monitored according to a specific benchmark. It also links the action plan dimension to the progress dimension by validating the effectiveness of practices from the action plan that are being implemented to create progress.

OSUMH does have a Results-Based Accountability dashboard that tracks progress on selected aggregate metrics and more detailed output measures (the dashboard can be viewed by using the QR code to the left). The metrics mentioned throughout this report are included in this dashboard.

Beyond dashboards, OSUMH also monitors local authority plans by evaluating 1) the scope of services and 2) whether the services comply with state policies and division directives. When OSUMH's review finds deficiencies, local authorities provide corrective action plans to address them. OSUMH's yearly monitoring report provides a follow-up on deficiencies from the previous year.

CHAPTER 6 Summary
Employment Vacancies in Critical Areas
of State Government Are Concerning

LEGISLATIVE
AUDITOR
GENERAL

1 HIGH VACANCY RATES

Implementation Status

Progress — In Process
Monitoring — In Process
Capacity — In Process
Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT

Injury or Loss of Life
Impaired Service Delivery
Fiscal Damages
$

PROGRESS – IN PROCESS
Over half of state jobs were 15 percent or more below market wage in 2021. Pay increases in 2022 and 2023 may have reversed the slide, but thousands of critical positions remain vacant.

MONITORING – IN PROCESS
DHRM contracted with Gallagher Bassett to conduct research and planning activities. The division and agencies must continue to monitor vacancy trends in high impact positions.

CAPACITY – IN PROCESS
The state made the largest targeted funding recommendation ever, totaling $105 million for FY23. Vacancies in certain areas still create unsafe conditions and require mandatory overtime.

ACTION PLAN – IN PROCESS
Using targeted funding as a response to a competitive market, DHRM and individual agencies are seeking to fill vacancies by bringing salaries of critical positions closer to market.

POTENTIAL IMPACT

State Hospital residents are at risk of losing critical therapy time.

Unsupervised inmates at the State Prison elevate the risk of physical altercations.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2022-14: A Performance Audit of the Board of Pardons and Parole

Report #2022-13: A Limited Review of the Oversight and Effectiveness of Adult Probation and Parole

Report #2021-15: An In-Depth Follow-Up of the State's Career Service System

Chapter 6
Employment Vacancies in Critical Areas of State Government Are Concerning

Why Area Is High Risk

Low wages in many state agencies have led to higher turnover and vacancy rates which may jeopardize the health and safety of individuals in state care or custody. During the 2023 General Session, the Legislature made generational investments to help agencies address retention and vacancy issues using targeted funding. The areas of greatest impact are found in the Utah Department of Corrections (UDC) and the Department of Health and Human Services (DHHS). As part of an ongoing legislative audit being conducted on safety and security at the state prison, the issue of staffing shortages will be addressed; the results of that audit will be released later this year.

6.1 Staffing Shortages in State Agencies Contribute to Reduced Safety and Service to Individuals in State Care

At the Utah State Correctional Facility, staffing shortages have prompted mandatory overtime and raised concerns about the safety of inmates and staff. The Adult Probation and Parole (AP&P) division has an employee retention problem, particularly in a critical region with the largest volume of high-risk offenders and the least-experienced staff. At the Utah State Hospital, staffing shortages have led to burnout among direct care staff, loss of safety measures for patients, and decreased hours of critical face-to-face therapy. Residents who lose that therapy time may have an increased risk of self-injury or death.

Progress – In Process: Vacancies Persist in Areas of High Impact

In multiple reports to the Legislature in 2022, the Division of Human Resource Management (DHRM) underscored a misalignment with the market on base salaries for state employees. DHRM contracts with Gallagher Benefit Services, Inc. to conduct studies to compare the state's total compensation (base pay and benefits) with that of the labor market.

Figure 6.1 DHRM's Survey of Salaries Shows Under-Market Tendencies. This graph shows that in 2019, over half (51 percent) of the salaries for state jobs were 15 percent or more below market. By 2021, the proportion of misaligned positions had increased to 57 percent.
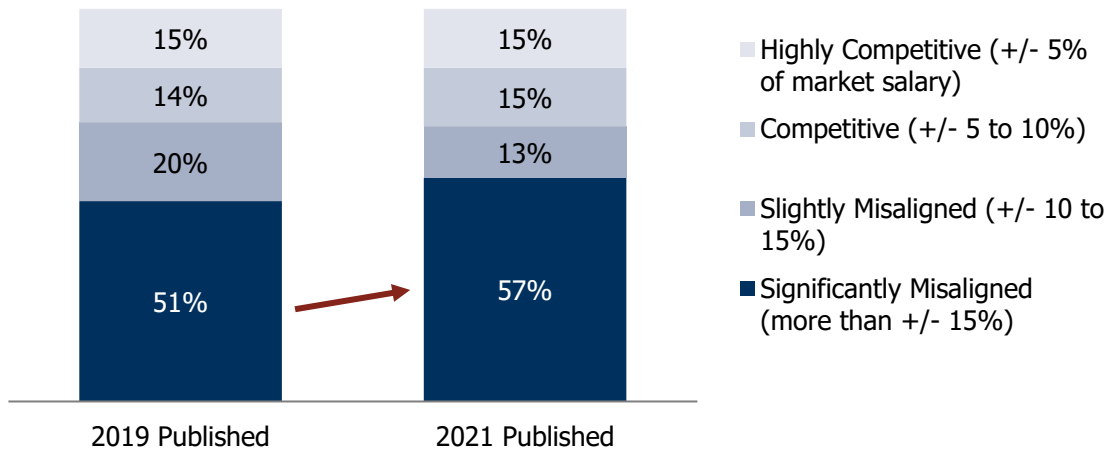
Source: *Auditor generated – Division of Human Resource Management*

In Figure 6.1, the lower area shaded in dark blue shows that from 2019 to 2021, state salaries became increasingly misaligned. Gallagher Bassett defines "significantly misaligned" as more than 15 percent from market compensation. This means that in 2019, half of the jobs in the state were significantly misaligned (or more than 15 percent) to what employees in those positions could make in a job elsewhere in the public sector. In 2021 it grew to 57 percent.

Staffing models for the State Prison indicate a need for more than 100 additional officers before mandatory overtime can be eliminated. Mandatory overtime has the potential to lead to burnout among staff, affect the supervision of inmates, and elevate the risk of physical altercations. At the Department of Public Safety (DPS), dispatcher vacancy rates rose to 30 percent in 2022, which impacted operational effectiveness during a crisis year. AP&P has an employee retention problem, which is exacerbated in a region with the largest volume of high-risk offenders and the least-experienced staff. [32] High turnover leads to decreases in the overall experience level of agents while simultaneously increasing workloads and the potential for supervision errors. Discussions with representatives from human resources and police departments in Salt Lake County revealed that pay is the most common reason AP&P agents leave.

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[32] OLAG Report 2022-13: A Performance Audit of the Oversight and Effectiveness of Adult Probation and Parole

The Utah Department of Transportation (UDOT) has been tracking the high turnover of transportation technicians in their first two years of employment. UDOT links the work of these employees to their goal of "Zero Fatalities" and road safety as they respond to crashes and other hazardous conditions. UDOT invests over $17,000 per individual in the training and certification programs; however, the turnover costs go beyond money and loss of productivity. The department says there is a correlation between more years of experience and a reduction in incidents, which also promotes road safety and less damage to equipment.

DHHS is also experiencing critical staffing shortages in its 24/7 facilities. At the start of 2022, the department reported being down 490 staff statewide, and the Utah State Hospital was reported to have 179 vacancies. DHHS says these vacancies have contributed to safety incidents, reduction in access to care, poor physical and mental health of staff, and a potential for rising costs due to fewer early intervention options. The Utah State Hospital reports that staffing shortages have also led to burnout among direct care staff, diminished safety measures for patients, and decreased hours of critical face-to-face therapy. The temporary closing of a thirty-bed unit was another result of the staffing shortages.

> **The Legislature has made generational investments in employee salaries; however, thousands of vacancies remain statewide and in positions of high impact.**

While the Legislature has recently made generational investments in Utah's state employees, thousands[33] of positions throughout the state remain vacant, and turnover continues in positions of high impact. Despite the prevalence of positions left vacant, DHRM points to the examples of agencies where the outflow of employees is slowing and credits the updated compensation strategy. Prior to targeted funding taking effect, UDC had about 550 open post positions. However, by June of 2023, there were approximately 360 open post positions.

Chronic vacancies in other agencies across the state might have less obvious impact; however, the high numbers still represent a significant investment in training and may indicate a need for further review into agency culture or other

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[33] The virtual Workforce Profile Dashboard showed approximately 9,000 vacancies throughout FY23; however, DHRM emphasized the caveat found on the dashboard page which reads "*This number reflects all vacant positions in the Human Resource Information System. It does not reflect whether a position is funded or intended to be filled.*"

contributing factors. For example, between 2021 and present, Alcoholic Beverage Services' turnover rate has fluctuated between 73 percent and 93 percent. During the same period, the Department of Natural Resources has seen an average of over 50 percent turnover. Across all agencies, the average turnover of the state's approximately 20,000 employees has been hovering around 25 percent since 2021. Almost half of the state positions are filled by employees with less than five years in the same position.

> **The average turnover among the state's ~20k employees is approximately 25 percent. Nearly half of state employees have less than five years in the same position.**

Action Plan – In Process: Agencies Must Leverage Retention Strategies Beyond Salary

As per recent legislative policy changes, UDC opened eligibility for nineteen- and twenty-year-olds to become corrections officers. During the 2022 August interim, the Legislature approved UDC's repurposing of certain operational savings from the new prison to provide a second phase of salary increases. In March 2022, UDC implemented the first phase of compensation increases, resulting in an average salary boost of 14 percent for correctional officers. The agency was attempting to combat high turnover and vacancy rates by becoming more competitive with local law enforcement agencies. DHRM intends to continue targeted increases as a part of a multi-year plan to bring state employee salaries closer to market.

The Utah State Hospital is trying several new strategies to bring in more workers. They have focused on offering sign-on bonuses and incentives for overtime. In addition to the prioritized appropriations made by the Legislature, new legislation now requires reporting on the adequacy of employee pay at the Utah State Hospital.

DPS plans to provide a quarterly bonus of $3,000 for current certified dispatchers for the first three quarters of fiscal year 23, with planned ongoing implementation at the start of fiscal year 24. An ongoing strategy includes moving the starting wage from $20 per hour to $25 per hour and increasing the top wage from $25.50 to $33.60 per hour.

Capacity – In Process: New Statutorily Required Pay and Training Systems Will Soon Be Tested

The Legislature made significant investments in state employee compensation for fiscal year 2024—$242 million ongoing, including a 5 percent cost-of-living adjustment. In addition, House Bill 104 (2022 General Session) mandated new training courses for supervisors and a "pay for performance" management

system. These legislative measures were provided as tools to help DHRM and agencies with employee retention issues.

During the 2022 General Session, the Legislature appropriated money for targeted salary increases for corrections officers ($39.5 million ongoing) and DPS's sworn officers ($20.0 million ongoing and $10.0 million one-time) to address recruitment and retention issues.

DHHS operates on a budget of $7.3 billion ($4.5 billion federal funds and $2.8 billion state funds). Still, in January 2022, DHHS reported there are over two thousand vacancies to fill in the department. For the positions that were significantly misaligned to market, the department recommended up to 15 percent increases. Some front-line positions, such as youth development specialists, were lagging as far as 34 percent below market. DHRM has been seeking salary increases averaging 23.5 percent for jobs that lag the market by more than 20 percent. Understandably, these increases are substantial and costly. The Legislature has taken significant steps to address salaries in these areas.

Monitoring – In Process: Agencies Must Collaborate with DHRM to Improve Data Collection and Decision-Making

As required by statute,[34] DHRM conducts research and planning activities to determine and prepare for future state human resource needs. The agency works with an external firm to help determine the comparability of state salaries to those in the general market.

Each agency has access to a virtual Workforce Profile Dashboard which is housed and maintained by the Department of Government Operations. While DHRM does not directly evaluate the impact of compensation treatments on recruiting efforts, individual agencies can use this dashboard to track current employee counts, vacancies, turnover, demographic and other information related to their employees.

For continued retention and recruitment efforts, agencies must collaborate with DHRM and monitor the effects of the new training and pay systems. In addition, as targeted funding continues to be applied each year, agencies must create and document improvements to data management related to retention. For example, in response to a recent legislative audit[35] which recommended supplementing performance results with contextual information, DHHS created new

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[34] *Utah Code* 63A-17-106

[35] OLAG Report 2021-12: A Performance Audit of Social Service Agencies' Performance Measures (October 2021)

performance measures for employee retention and rates of employee wellness/satisfaction/engagement. Their written strategy includes a focus to ensure that quality data is collected, reported, and used to drive decision-making.

CHAPTER 7 Housing Affordability
Housing Affordability Contributes to Concerns with
Utah's Cost-of-Living and Statewide Economic Growth

As described in our methodology chapter, we sifted and sorted 12 high risk areas from a wide list of topics. Our sifting process found housing affordability to be a clear risk to the state's continued growth and success. This topic is being fully addressed in a separate audit that was prioritized by the Legislative Audit Subcommittee and is anticipated to be released at the end of 2023. We provide a summary below of key areas which identify housing affordability as a high-risk candidate.

HOUSING AFFORDABILITY

OLAG Audit Pending

- Progress
- Monitoring
- Capacity
- Action Plan

Area Not Yet Rated

PROGRESS
Utah's housing gap currently sits at 31,000. Additionally, from 2020 to 2022 rent prices grew equivalent to or more than they did during each of the previous two decades.

MONITORING
Statute was amended in 2022 and now requires the development of a database to track moderate income housing units. More time is needed to fully understand the impact of newer legislation on housing affordability.

CAPACITY
Given the current shortage of supply relative to demand, in our upcoming OLAG audit, we will look at whether Utah housing policies promote enough construction.

ACTION PLAN
Political subdivisions must create implementation plans for moderate income housing. In our upcoming OLAG audit, we will provide insights on whether broader state level plans would be beneficial.

POTENTIAL IMPACT

High Risk Impact
- Injury or Loss of Life
- Impaired Service Delivery
- Fiscal Damages

25% of Utahns are housing cost-burdened, limiting economic mobility.

More time is needed to fully understand the impact of new legislation on housing affordability.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2023-XX: A Performance Audit of Utah's Housing: State Policy Is Needed (release scheduled for the end of 2023)

Report #2018-12: A Performance Audit of Utah's Homeless Services

Report #2017-11: A limited Review of Sources of Funding and Expenditures of Homeless Initiatives

Report #2012-06: A limited Review of Sources of Funding and Expenditures of Homeless Initiatives

CHAPTER 8 Utah's Energy Policy
Our Previous Audit Found That Utah Is at an Energy
Crossroads and Needs Better Planning to Maintain Its Priorities

LEGISLATIVE AUDITOR GENERAL

As described in our methodology chapter, we sifted and sorted 12 high risk areas from a wide list of topics. Our sifting process found energy policy to be a clear risk area. Earlier this year, our office released a comprehensive audit on Utah's energy policy. The link is found here: _A Performance Audit of Utah's State Energy Policy_, Report No. 2023-06, June 13, 2023. Rather than repeat the detail of the audit herein, we refer the reader to the full audit and provide a summary of the high-risk Implementation Status for Chapter 8:

UTAH'S CHANGING ENERGY PORTFOLIO

1

Implementation Status

Progress — In Process
Monitoring — In Process
Capacity — In Process
Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT
Injury or Loss of Life
Impaired Service Delivery
$
Fiscal Damages

PROGRESS – IN PROCESS
Utah has historically maintained affordable and reliable energy resources. However, federal and other state policies influence Utah's "any of the above" energy strategy, shifting the state away from some resources that have historically allowed it to sustain those standards.

MONITORING – IN PROCESS
The Office of Energy Development (OED), and others, monitor the state's natural resources. More can be done to track the state's progress towards maintaining the State Energy Policy for affordable, reliable, and sustainable energy.

CAPACITY – IN PROCESS
OED could better inform policy and decision makers on the development of new energy technologies and provide additional research, including modeling, to help guide energy policy in the state.

ACTION PLAN – IN PROCESS
OED's 2021 energy plan contains six commitments for Utah energy but does not include any measure to achieve these objectives. The Legislature also noted a lack of direction in HB462. We recommend OED develop measures in alignment with best practices.

POTENTIAL IMPACT
The changing energy system may impact resource adequacy and affordability without proper planning.
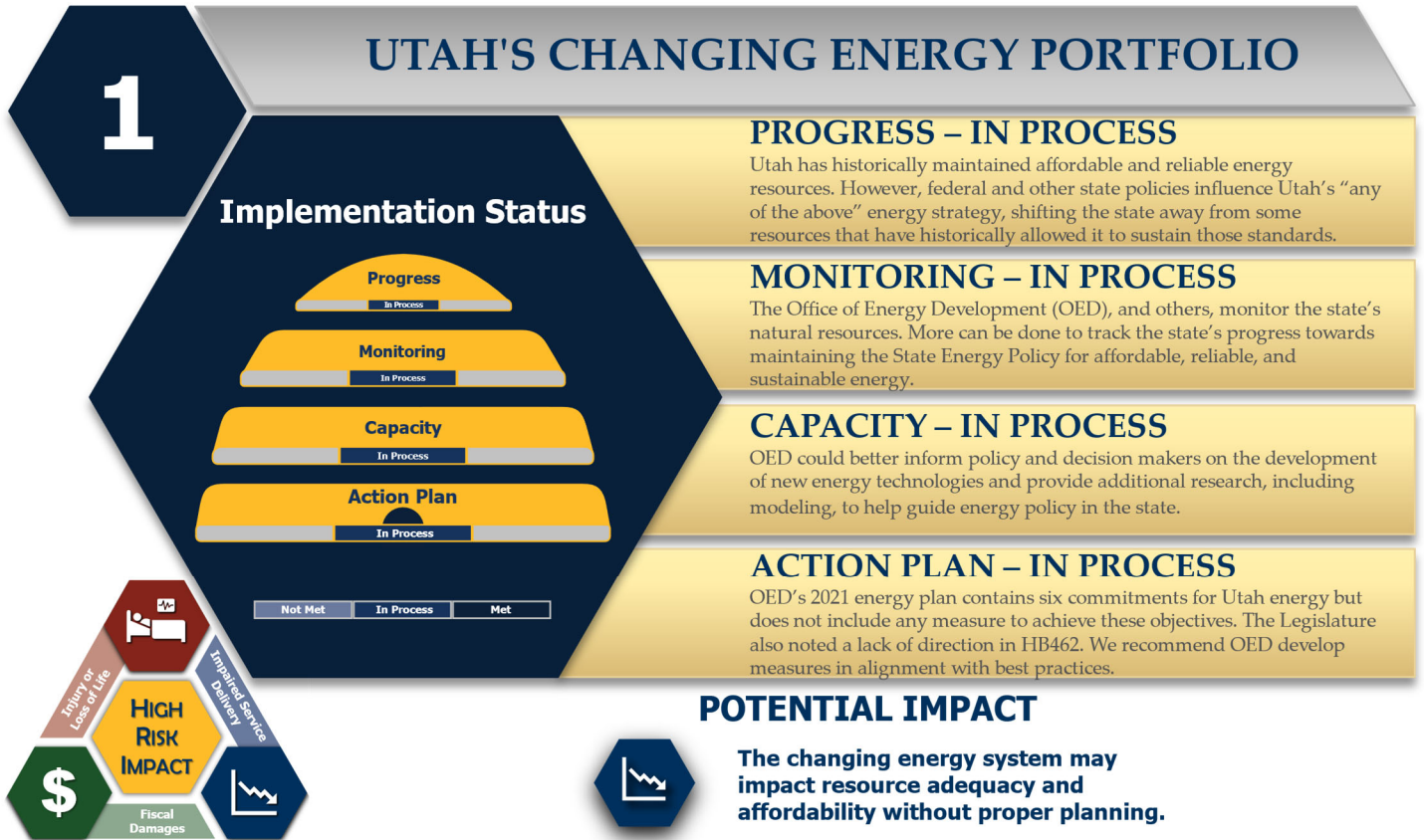
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Related OLAG Products

Report #2023-06: A Performance Audit of Utah's State Energy Policy

CHAPTER 9 Cybersecurity & Data Privacy
Recent OLAG Audits Found Utah Must Increase Cybersecurity
Training and Improve Management of Personal Information

LEGISLATIVE AUDITOR GENERAL

As described in our methodology chapter, we sifted and sorted 12 high risk areas from a wide list of topics. Our sifting process found cybersecurity and data privacy to be clear risk areas. Earlier this year, our office released comprehensive audits on the critical data topics of Cybersecurity and Data Privacy. Links to the full audits are provided here: *A Performance Audit of the Cybersecurity in the State of Utah*, Report No. 2023-04, May 16, 2023 and *A Performance Audit of the Collection, Protection, and Use of Personal Information by State Agencies*, Report No. 2023-07, June 13, 2023. Rather than repeat the detail of these audits herein, we refer the reader to the audits and provide a summary of the high-risk Implementation Status of Chapter 9 Cybersecurity & Data Privacy on these 2 pages:

CYBERSECURITY

1 Implementation Status

Progress — In Process
Monitoring — In Process
Capacity — In Process
Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT — Injury or Loss of Life, Impaired Service Delivery, Fiscal Damages

PROGRESS – IN PROCESS
Utah's three branches of government are at risk for cyber attacks. Many entities lack a cybersecurity framework and do not require annual cybersecurity awareness training.

MONITORING – IN PROCESS
Recent Legislation directs DTS to oversee collection of information about cyberattacks on government entities.

CAPACITY – IN PROCESS
The Legislature created the Cybersecurity Commission within the Department of Public Safety to coalesce efforts around improving cybersecurity in the state.

ACTION PLAN – IN PROCESS
The Executive Branch needs to ensure employees are completing cybersecurity training. The Judicial Branch needs to adopt a cybersecurity plan. The Legislative Branch needs to improve compliance with recognized standards.

POTENTIAL IMPACT

Cybersecurity breaches cost Utah public entities almost $6 million from 2016 to 2022.

Breaches may also result in losses of information, credibility, and service.
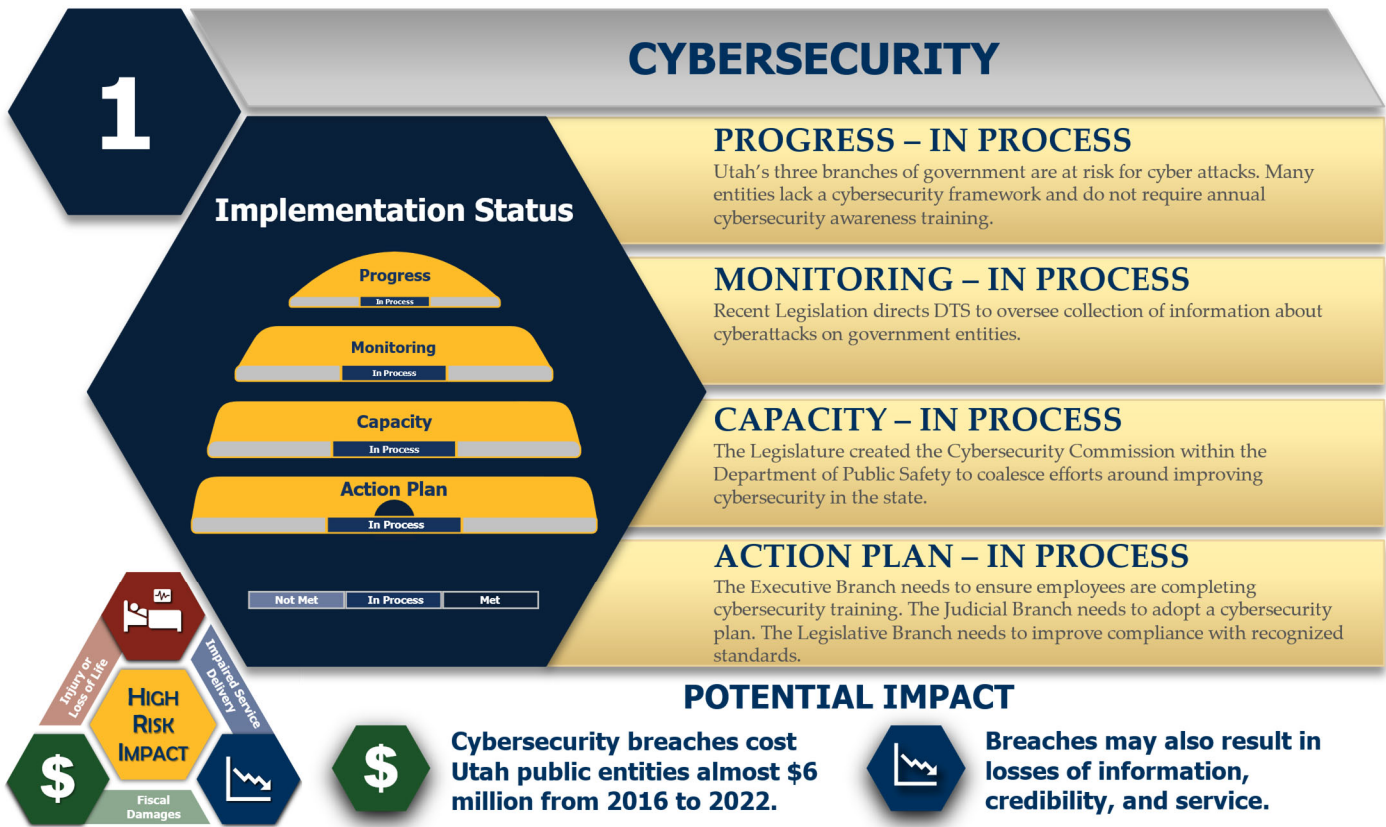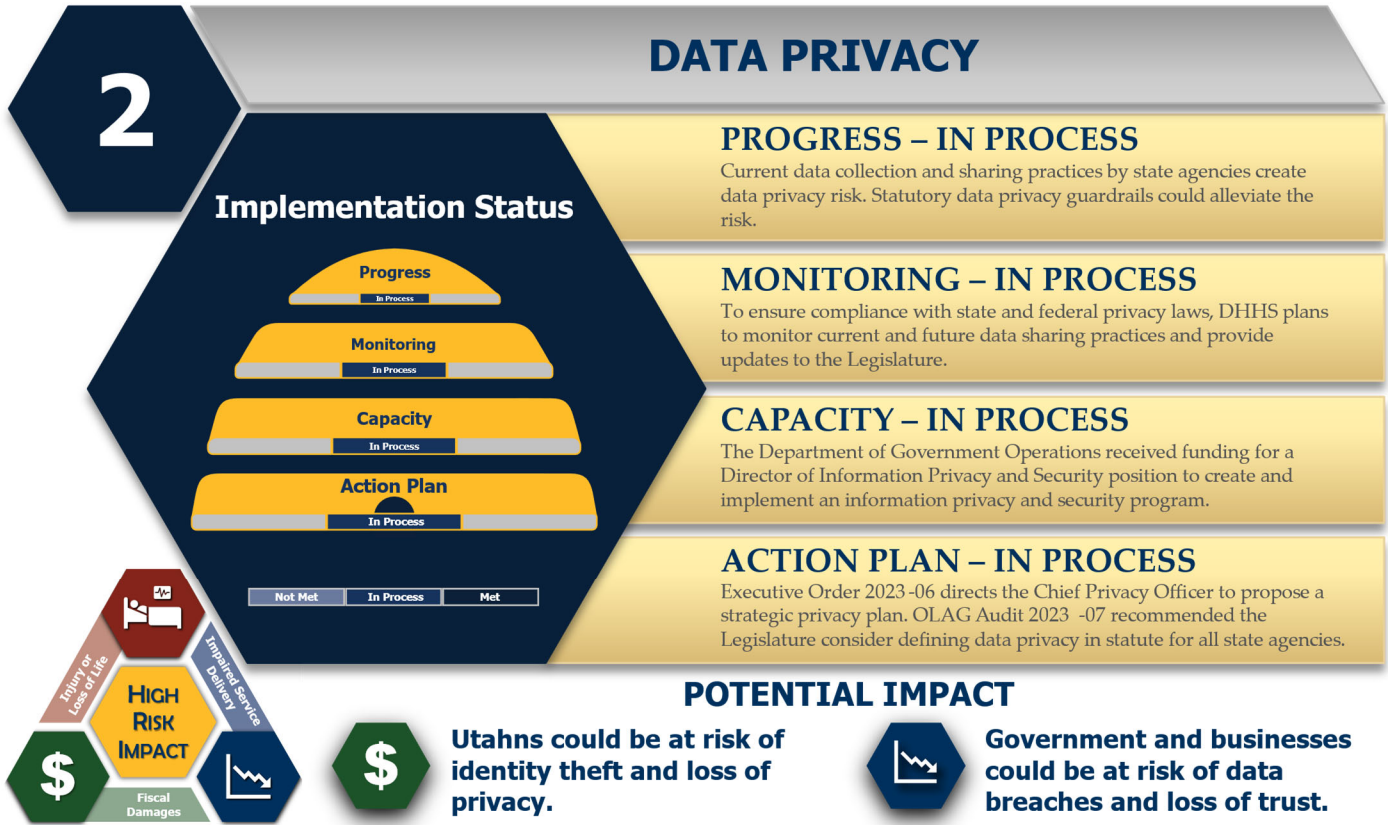
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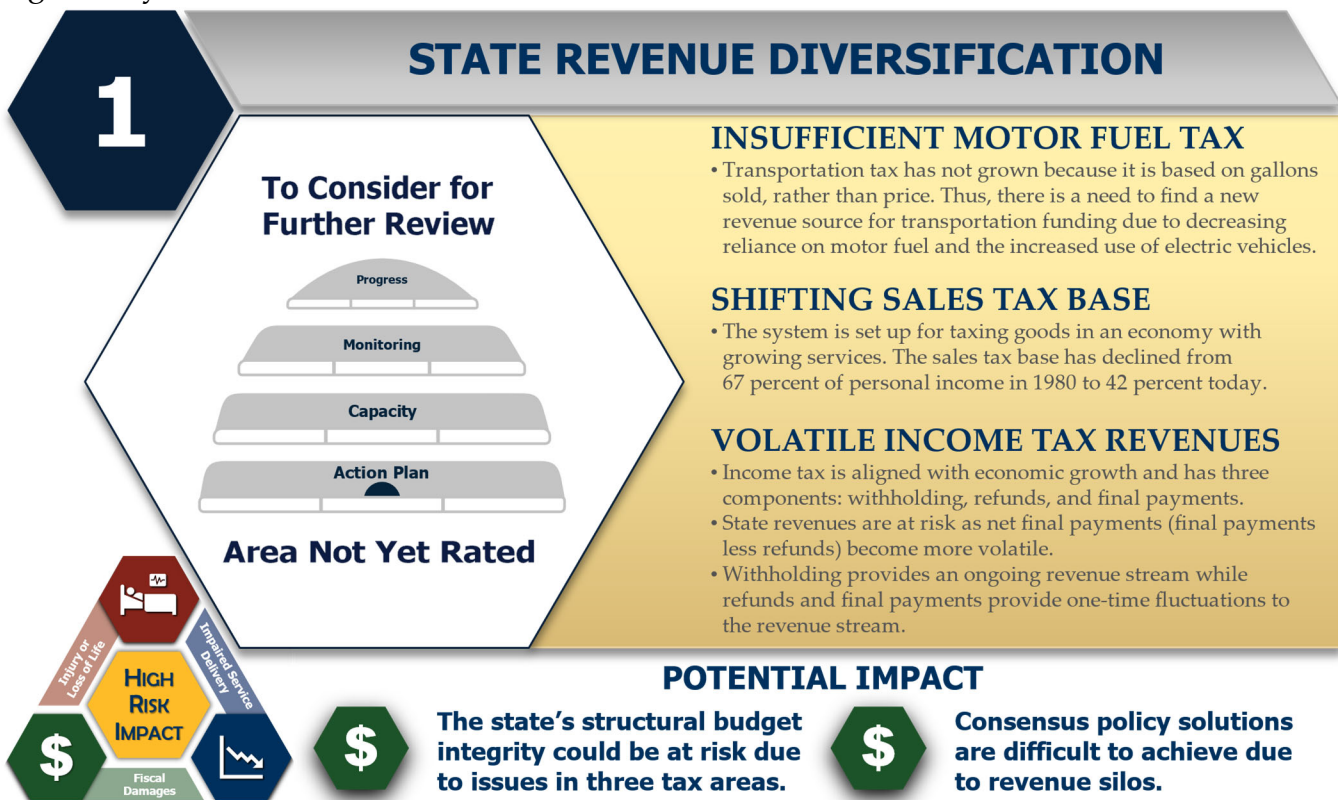
Related OLAG Products

Report #2023-06: A Performance Audit of the Cybersecurity in the State of Utah

(Refer to introductory language and audit links on the previous page.)

2 — DATA PRIVACY

Implementation Status

- Progress — In Process
- Monitoring — In Process
- Capacity — In Process
- Action Plan — In Process

Not Met | In Process | Met

HIGH RISK IMPACT
- Injury or Loss of Life
- Impaired Service Delivery
- Fiscal Damages

PROGRESS – IN PROCESS
Current data collection and sharing practices by state agencies create data privacy risk. Statutory data privacy guardrails could alleviate the risk.

MONITORING – IN PROCESS
To ensure compliance with state and federal privacy laws, DHHS plans to monitor current and future data sharing practices and provide updates to the Legislature.

CAPACITY – IN PROCESS
The Department of Government Operations received funding for a Director of Information Privacy and Security position to create and implement an information privacy and security program.

ACTION PLAN – IN PROCESS
Executive Order 2023-06 directs the Chief Privacy Officer to propose a strategic privacy plan. OLAG Audit 2023-07 recommended the Legislature consider defining data privacy in statute for all state agencies.

POTENTIAL IMPACT

Utahns could be at risk of identity theft and loss of privacy.

Government and businesses could be at risk of data breaches and loss of trust.

How to Interpret the Risk Dimensions in the Beehive:
The dimensions in the beehive figure are meant to build on each other from the bottom to the top. Therefore, Progress having a "Met" rating is the ultimate goal for each high-risk area of concern. The sections in this chapter are laid out reviewing Progress first and then discussing the building blocks towards Progress – beginning with Action Plan, moving to Capacity, and ending with Monitoring.

Related OLAG Products

Report #2023-06: A Performance Audit of the Collection, Protection, and Use of Personal Information by State Agencies

As described in our methodology chapter, we sifted and sorted 12 high risk areas from a wide list of topics. Our sifting process found state revenue diversification to be a clear risk to the state's continued economic growth and success. This area was one of three high-risk areas termed "Honorable Mention," which highlight areas of critical vulnerability and will receive in-depth analysis on the next iteration of the High-Risk List. Specifically, our office will score the risk area's Action Plan, Capacity, Monitoring and overall Progress.

Why Area Is High-Risk

The State's Structural Budget Integrity Could Be at Risk Due to Threats in Revenue Areas. General state tax revenues are typically focused on three sources: Income, Sales, and Motor fuel. Historically, these have covered the costs to which they were devoted. But over time there has been an increasing divergence and the state has become highly dependent on income tax. Not only does the disparity increase revenue volatility, but it could create a disincentive for productivity. Sales tax has not kept up with economic growth because it was structured for an industrial society rather than a serviced-based society. Of specific concern is the need to find a new revenue source for transportation funding due to decreasing reliance on motor fuel and the increased use of electric vehicles. Note: property tax is generally local and as a result will not be addressed here.

STATE REVENUE DIVERSIFICATION

To Consider for Further Review

Progress

Monitoring

Capacity

Action Plan

Area Not Yet Rated

HIGH RISK IMPACT
Injury or Loss of Life
Impaired Service Delivery
Fiscal Damages

INSUFFICIENT MOTOR FUEL TAX
• Transportation tax has not grown because it is based on gallons sold, rather than price. Thus, there is a need to find a new revenue source for transportation funding due to decreasing reliance on motor fuel and the increased use of electric vehicles.

SHIFTING SALES TAX BASE
• The system is set up for taxing goods in an economy with growing services. The sales tax base has declined from 67 percent of personal income in 1980 to 42 percent today.

VOLATILE INCOME TAX REVENUES
• Income tax is aligned with economic growth and has three components: withholding, refunds, and final payments.
• State revenues are at risk as net final payments (final payments less refunds) become more volatile.
• Withholding provides an ongoing revenue stream while refunds and final payments provide one-time fluctuations to the revenue stream.

POTENTIAL IMPACT
The state's structural budget integrity could be at risk due to issues in three tax areas.

Consensus policy solutions are difficult to achieve due to revenue silos.

CHAPTER 11 Real Property Management
Utah Buildings with Unreinforced Masonry Pose a Seismic Threat
to Occupants | School Construction Projects Need Standards
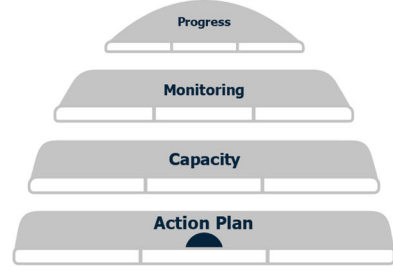
LEGISLATIVE
AUDITOR
GENERAL

As described in our methodology chapter, we sifted and sorted 12 high risk areas from a wide list of topics. Our sifting process found real property management to be a clear risk to the state. This area was one of three areas termed "Honorable Mention," which highlight areas of critical vulnerability and will receive in-depth analysis on the next iteration of the High-Risk List. Specifically, our office will score the risk area's Action Plan, Capacity, Monitoring and overall Progress.

REAL PROPERTY MANAGEMENT

1

To Consider for Further Review

Progress

Monitoring

Capacity

Action Plan

Area Not Yet Rated

HIGH RISK IMPACT

Injury or Loss of Life | Impaired Service Delivery | Fiscal Damages

UTAH BUILDINGS WITH UNREINFORCED MASONRY POSE SEISMIC THREAT TO OCCUPANTS

• The moderate magnitude 5.7 earthquake on March 18, 2020, caused significant damage to Westlake Junior High School in Magna, which was a partially unreinforced masonry (URM) building. Injuries would have likely occurred had school been in session.

• The Division of Facilities Construction and Management has an up-to-date vendor assessment of URM for state buildings, but more needs to be done to mitigate this area.

SCHOOL CONSTRUCTION PROJECTS NEED STANDARDS AND PROCESSES

• HB 251 in 2020 required all LEAs to have an employee or contracted person to oversee school construction projects, but overall standards and processes are still needed.

POTENTIAL IMPACT

Injuries or death can occur during seismic events in buildings with URM.

Construction quality can be affected in buildings that lack standards and processes.

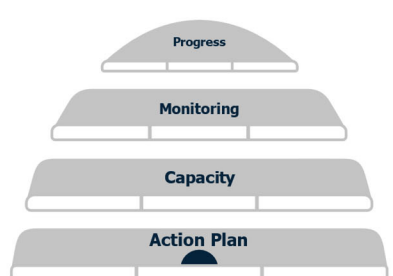| Related OLAG Products	
	Report #2019-07: A Performance Audit of State and Higher Education Building Costs
	Report #2015-07: A Review of Allegations Concerning DFCM Construction Contracting
	Report #2015-04: A Follow-up Audit of Higher Education's Management Practices for O&M Funding

As described in our methodology chapter, we sifted and sorted 12 high risk areas from a wide list of topics. Our sifting process found contract performance management to be a clear risk to the state. This area was one of three areas termed "Honorable Mention," which highlight areas of critical vulnerability and will receive in-depth analysis on the next iteration of the High-Risk List. Specifically, our office will score the risk area's Action Plan, Capacity, Monitoring and overall Progress.

CONTRACT PERFORMANCE MANAGEMENT

1

To Consider for Further Review

Progress

Monitoring

Capacity

Action Plan

Area Not Yet Rated

PARTICIPATION IN THE DIVISION OF PURCHASING'S CONTRACT PERFORMANCE MANAGEMENT SERVICES IS ONLY VOLUNTARY

• Most state agencies must participate with the division to procure contracts, but only 18% have opted in to use the division's on-going contract performance services. Instead, this function is performed by some agency analysts, but not in all agencies. There is a demonstrated need for state agencies to be required to utilize this service, based on some past overbillings and issues with poor contract performance.

CENTRALIZED OVERSIGHT OF STATE GRANTS DOES NOT OCCUR

• The Division of Purchasing does not have authority over any grant management which creates a risk area needing further review for millions of dollars in grants each year in the state.

POTENTIAL IMPACT

HIGH RISK IMPACT

Injury or Loss of Life

Impaired Service Delivery

Fiscal Damages

$ Contract performance can be compromised without required oversight beyond procurement.

$ Efficient and effective use of grants can be impacted without better oversight.

Related OLAG Products	
	Report #2017-07: A Performance Audit of Public Entities' Oversight of the Qualified Health Insurance Statute
	Report #2016-07: A Performance Audit of the Economic Development Corporation of Utah
	Report #2015-07: A Review of Allegations Concerning DFCM Construction Contracting
	Report #2014-11: A Review of Allegations Concerning Utah's Purchasing Interaction with WSCA-NASPO

Agency Response

Department of Natural Resources

Department of Natural Resources

JOEL FERRY
Executive Director

September 11, 2023

Kade R. Minchey
Legislative Auditor General
House Building Capitol Complex
Salt Lake City, Utah 84114

Dear Mr. Minchey:

The Utah Department of Natural Resources, the Division of Water Resources and the Division of
Water Rights are grateful for the time and effort the Legislative Auditor's Office has dedicated to
studying water needs and infrastructure in Utah. We appreciate their thoroughness and
willingness to coordinate with us on these critical issues.

We have reviewed and provided comments and feedback on chapters 1 (Water Needs) and 2
(Water Infrastructure) of your report, "High-Risk List: Identifying and Mitigating Critical
Vulnerabilities in Utah" #2023-10.

We support the research and outcomes identified in the high-risk assessment in chapters 1 and 2
and believe in the importance of proactive planning, data gathering, monitoring and
implementation of Utah's water. We look forward to working with the Legislature and the Office
of the Legislative Auditor moving forward.

Sincerely,

Joel Ferry
Executive Director

1594 West North Temple, Suite 3710 · PO Box 145610 · Salt Lake City, UT 84114-5610 · Telephone (801) 538-7200 · *www.DNR.Utah.gov*

Office of the Legislative Auditor General   89

Department of Environmental Quality

State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

Ty L. Howard
Deputy Director

September 7, 2023

Kade Minchey, CIA, CFE, Auditor General
Office of Utah Legislative Auditor General
PO Box 145315
Salt Lake City, UT 84114
Via Email

Dear Mr. Minchey,

I would like to extend my gratitude to your office for consulting with the Department of Environmental Quality as you developed Chapter 2, Water Infrastructure, in the report "High-Rish List: Identifying and Mitigating Critical Vulnerabilities in Utah #2023-10". DEQ fully supports the findings in Chapter 2 of the report.

I would like to take the opportunity to provide additional comments and insights regarding the content in Chapter 2 to help reinforce those findings.

Under Item 2.2, "Water Infrastructure Is At Risk of Failure From Seismic Risks and Delayed Replacement", the department believes it is also important to include seismic risks associated with drinking water treatment and storage facilities. In addition to the critical aqueducts that are at seismic risk, drinking water treatment and storage facilities, especially for the largest water providers, may also be at risk of failure from seismic risks. These treatment and storage facilities should be retrofitted to meet current seismic standards if they are not already.

Under item 2.3, "Concerns with Stormwater, Wastewater, and Drinking Water Systems Threaten Water Quality and Merit Further High-Risk Review," we suggest that the Legislature consider providing emergency drinking water funding. This funding is necessary to assist public water systems during emergency situations such as floods, wildfires, drought, and unanticipated infrastructure failures. A state-funded drinking water emergency fund will enable the Division of Drinking Water within the Department of Environmental Quality to deploy the required resources more quickly than we can currently using American Rescue Plan Act (ARPA) funding. Moreover, ARPA funding must be fully obligated by the end of 2024. As a result, the division's current source of funding to assist with drinking water emergencies will be gone in less than 16 months.

The Department of Environmental Quality looks forward to continuing working with your office and the Legislature on our shared goals of investing in and protecting drinking water, stormwater, and wastewater infrastructure to ensure a safe, resilient, and reliable water future for Utahns.

Sincerely,

Kimberly D. Shelley
Executive Director

KDS/blj

Utah State Board of Education

September 7, 2023

Kade Minchey, CIA, CFE
Auditor General
Office of the Legislative Auditor General
W315 State Capitol Complex
Salt Lake City, UT 84114

Mr. Minchey:

Thank you for the opportunity to respond to Chapter 3 of the High-Risk Audit Report. We appreciate the Legislature's attention to risk management and the identification of public education being of critical importance of the quality of life of citizens of the state of Utah. We also appreciate the professionalism and courtesy of your staff in conducting the review.

We acknowledge the importance of the risk when students don't hit the marks of success along their education paths and are working diligently to ensure conditions are in place for opportunities to learn and succeed. We recognize and underscore that these efforts take policy makers and practitioners at the state and local levels working together. Aligning pathways among USHE, Talent Ready Utah, and CTE programs is an example of effective collaboration that is data informed.
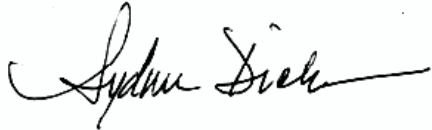
Of note, the one area that has a status of "Not Met" is Capacity in K-12 Student Proficiency. The audit recognizes that "More resources should be devoted to underrepresented areas." and that "Teacher improvement efforts can be strengthened, as should improvements in teacher support and community engagement." We appreciate the call out of SB127 that provides both a comprehensive and well-resourced approach to improving teacher capacity and student outcomes in literacy. This kind of focus is already yielding success. Supporting teachers is always a wise investment.

Kade Minchey, Legislative Auditor General
September 7, 2023
Page 2

The Utah State Board of Education is in the midst of reviewing and revising its strategic plan. We will continue to hold ourselves accountable for the goals and strategies as outlined.

With appreciation,

Sydnee Dickson
State Superintendent of Public Education

cc: Patty Norman, Deputy Superintendent of Student Achievement
        Darin Nielsen, Assistant Superintendent of Student Learning
        Thalea Longhurst, Director of Career and Technical Education
        Debbie Davis, Chief Audit Executive

Utah System of Higher Education

September 7, 2023

Kade Minchey, CIA, CFE
Legislative Auditor General
W315 State Capitol Complex
Salt Lake City, Utah 84114

Mr. Minchey,

Thank you for the opportunity to review Chapter 3, *Better Preparation and Clearer Pathways to High-Yield Programs Can Improve Education's ROI*. We appreciate Darin Underwood and Andrew Poulter for highlighting the progress of and opportunities for the Utah System of Higher Education to consider as we strengthen and develop educational pathways to increase students' access to and completion of higher education aligned to Utah's workforce.

We understand this this is one portion of a larger report dedicated to High Risk Areas in Utah and acknowledge that the topic of student transition from secondary to postsecondary education through pathways is critically important. We agree with the assessment provided by the Office of the Legislative Auditor team and will continue to work with our legislative leaders, the Governor, the Utah State Board of Education, and our institutions to build and maintain a statewide vision and for educational pathways in Utah.

Sincerely,

Geoffrey T. Landward
Interim Commissioner of Higher Education

Two Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

801.646.4784

ushe.edu

Office of the Legislative Auditor General   101

USHE Response to Chapter 3 Better Preparation and Clearer Pathways to High-Yield Programs Can Improve Education's ROI

3.1 K-12 Student Proficiency Measures Show Mixed Progress Short of Their Goals

Response: *This report highlights concerns with college readiness among high school graduates. The Utah System of Higher Education offers several college options for students, so academic under preparation in some subjects is not a barrier to all college programs. Technical college programs are especially accessible.*

Additionally, USHE has prioritized helping academically underprepared students succeed in college-level academic subjects such as English, math, and sciences by providing just-in-time co-requisite remediation, inclusive pedagogical strategies and instructional supports, and close attention to course success gaps among different demographic populations in key introductory courses. USHE and USBE have also partnered on curricular alignment efforts in key subjects like mathematics to improve high school students' academic preparation.

3.2 Enrollment and Completion Rates Show That Greater Student Awareness of Educational Pathways is Needed

Response: *We appreciate the acknowledgement that the system is in-process on work related to increasing awareness of technical college opportunities, improving efficiencies of stackable credentials amongst all institution types, and participating in the creation of a cross-agency definition of pathways. We agree that each area must continue to progress to meet USHE's goals related to access, completion, and workforce alignment.*

The Utah Board of Higher Education's strategic plan addresses goals and tactics related to the system's work within educational pathways. As acknowledged in this report, the strategic plan addresses cross-agency collaboration that will help Utah create a shared goal and definition of pathways, coordinate all college-in-high school opportunities, and develop a data collection and reporting framework that monitors progress of pathways work. In addition to these initiatives, student navigation and awareness of pathways remains a concern that is being addressed as part of USHE's three-phase approach to pathways development.

Supplemental efforts in the following areas further support USHE's commitment to pathways: conversion from clock hours to credit hours at technical colleges, program alignment of technical education programs, simplification of admissions processes, and structuring awards and programs to facilitate transfer between institutions.

3.3 Continuing Workforce Alignment Efforts Are Underway to Provide More Students Access to High-Wage, High-Demand Programs

Response: *Continued improvement of workforce alignment efforts remains a key strategy of the Utah Board of Higher Education. As acknowledged in the report, the recent addition of Talent Ready Utah, and bolstered workforce alignment tactics within the strategic plan, allow USHE to respond to industry needs and further its performance goals related to high-yield graduates.*

While Talent Ready Utah has contributed to overall workforce alignment efforts, USHE agrees that further partnership with USBE Career and Technical Education will allow the state to expand opportunities into shorter high-yield programs at technical colleges and further connect stackable educational opportunities to regional and state economic needs. As mentioned previously, a data collection and reporting framework will enhance USHE's efforts to understand the efficacy of pathways programming.

Lastly, as highlighted, the system office has created a dashboard to monitor institutional and systemwide progress for institutions toward high-yield awards. While some institutions have met their intended goals, others are working to actively to address their 2027 targets related to high-yield graduates.

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ushe.edu

Office of the Legislative Auditor General 103

Department of Health and Human Services

High-Risk List:
Identifying and Mitigating Critical Vulnerabilities in Utah

Department of Health & Human Services

TRACY S. GRUBER
Executive Director

NATE CHECKETTS
Deputy Director

DR. MICHELLE HOFMANN
Executive Medical Director

DAVID LITVACK
Deputy Director

NATE WINTERS
Deputy Director

State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

September 11, 2023

Kade Minchey, CIA, CFE
Auditor General
Office of the Legislative Auditor General
W#15 State Capitol Complex
Salt Lake City, Utah 84114

Mr Minchey:

Thank you for the opportunity to respond to report #2023-10 "High-Risk List: Identifying and Mitigating Critical Vulnerabilities in Utah." The Department of Health and Human Services, Office of Substance Use and Mental Health (SUMH) recognizes the significant risk that untreated substance use and mental health pose to individuals and communities in Utah. We appreciate the professionalism and expertise of your staff in preparing this report.
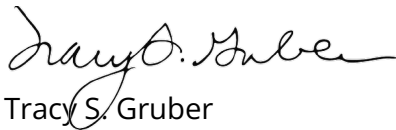
We concur with the findings and recommendations identified in this report. The Department of Health and Human Services is committed to improving equitable access to behavioral health services for all Utahns. The Office of Substance Use and Mental Health is working to address the challenges identified in Chapter 4, Capacity Issues to Meet the Rise in Mental Health Treatment Demand Need to be Addressed and Chapter 5, Substance Misuse Continues to Take Utah Lives.

Starting in State Fiscal Year 2024, monitoring visits of county local substance abuse and mental health authorities will include a discussion and review of key metrics identified in its Results based Accountability Plan.

When possible, county specific data will be used to evaluate progress in achieving our stated goals. This modification was suggested by the audit team and we believe will prove helpful moving forward.

DHHS appreciates that this report cites the recently released Behavioral Health Masterplan developed by the Utah Behavioral Health Coalition. This Masterplan provides additional information that may be helpful to Legislators and others interested in learning more about the significant challenges facing the behavioral health care system in Utah. Behavioral Health is essential to health for all Utahns. We are committed to creating a system that provides timely access to high-quality care across a comprehensive continuum of behavioral health services and supports.

With appreciation,

Tracy S. Gruber
Executive Director

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Department of Government Operations

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Kade R. Minchey
Auditor General
W315 House Building – State Capitol
Salt Lake City, UT 84114

September 6, 2023

Dear Auditor Minchey,

On behalf of the Department of Government Operations (DGO) I appreciate the opportunity to respond to the recommendations outlined in the report, *High-Risk List: Identifying and Mitigating Critical Vulnerabilities in Utah,* #2023-10. Three chapters of this report involve divisions within DGO, Chapter 6 – High Vacancy Rates addressed by the Division of Human Resource Management (DHRM); Chapter 11 – Real Property Management addressed by the Division of Facilities Construction and Management (DFCM); and finally, Chapter 12 – Contract Performance Management addressed by the Division of Purchasing (Purchasing).

DGO and its divisions agrees with the findings of this report and appreciated the opportunity to discuss the various risks highlighted. Individual division responses are outlined below.

1) **Chapter 6 – High Vacancy Rates**
   a) DHRM has attempted to combat high vacancy rates through the use of targeted compensation increases focused on making employee salaries more competitive with the market. This initiative continues annually with input from agency leadership on pinch points.

   b) DHRM remains committed to working with agencies to explore retention strategies outside of employee salary. Some examples of this include better advertising available options that allow employees to convert some of their benefits into cash, schedule/work options that provide greater employee flexibility, and a more streamlined onboarding experience which DGO is currently exploring. Additionally (and perhaps most importantly), the performance management mandates of HB 104 place a heavy emphasis on regular discourse between an employee and their supervisor. We believe the focus on more frequent and open communication will greatly improve the employee experience, which should lead to improved retention.

   c) The audit also mentions the importance of agencies collaborating with DHRM to improve data collection and decision making. DHRM fully supports this recommendation. One specific area where this could be utilized is in the vacancy rates themselves. The report specifically mentions that the vacancy numbers were pulled from the "Workforce Profile Dashboard", and that this

dashboard (a tool created by DHRM) reports the number of vacant positions in HRIS. The number does ___not___ reflect whether a vacant position is funded or intended to be filled. Greater coordination between DHRM and customer agencies to "tighten up" this number to only include funded positions would allow DHRM to better identify areas of significant need to focus efforts more effectively.

2) **Chapter 11 – Real Property Management**

a) DFCM agrees that unreinforced masonry structures can present a significant risk to occupants and the associated facilities. New earthquake standards addressing unreinforced masonry were adopted in 1980. It is worth noting that approximately 40% of the facilities covered by State Risk Management (state, higher education, and public education) are pre-1980 construction.

b) DFCM continues working to mitigate this type of facility risk as it becomes aware of structural deficiencies. An example of mitigation efforts would be the replacement of roof structures to meet current codes. During an earthquake shaking roofs can lead to failure of unreinforced structures.

c) In addition, DFCM contracts with a third party to perform Facility Condition Assessments (FCAs) for each building every 5 years. The FCAs in most cases will identify if unreinforced masonry is present. In January of 2023, DFCM revised the requirements for FCAs to begin tracking and reporting all current unreinforced structures. In the future this will be a searchable category in the FCA management system.
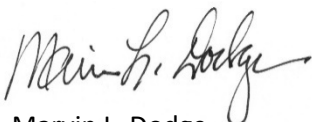
3) **Chapter 12 – Contract Performance Management**

Purchasing's contract management service is a new offering this year, so agencies are still learning about the service. Six state agencies are currently enrolled including the Departments of Government Operations, Corrections, Health & Human Services, Public Safety, the Tax Commission, and Governor's Office of Economic Opportunity. Purchasing believes this is just the beginning since every state agency has responded to at least one of their monthly contract management surveys. These surveys encourage agencies to perform some contract management functions, i.e., talk to vendors, report contractual issues to Purchasing, etc. and outlines the role the contract performance management service provides.

We look forward to further engagement with these issues. Since the OLAG report identifies a number of areas of critical vulnerability for the state, DGO commits its support to ongoing efforts to address the issues and reduce risk to the state and its citizens.

Please feel free to reach out to myself or division directors with any further questions.

Best Regards,

Marvin L. Dodge
Executive Director

Office of the Legislative Fiscal Analyst

Office of the Legislative Fiscal Analyst

Jonathan Ball, Legislative Fiscal Analyst

W310 State Capitol Complex | Salt Lake City, UT 84114 | Phone: 801.538.1034

September 7, 2023

Kade Minchey
Legislative Auditor General
W315 Lockhart House Office Building
State Capitol Complex
Salt Lake City, UT 84114

Dear General Minchey:

Many thanks to you and your team for your work on Report #2023-10, *High Risk List: Identifying and Mitigating Critical Vulnerabilities in Utah.* I am writing in response to Chapter 10 of that report, "State Revenue Diversification."

Utah policymakers have taken significant steps to diversify and stabilize the state's revenue streams. They have required risk measurement and contingency planning, adjusted tax rates, and expanded the allowable uses of our largest source. A proposed constitutional amendment further broadening the use of income tax revenue will continue that progress. However, greater economic and demographic trends like those you mention in the report work against them, driving state revenue toward over-reliance on a single highly volatile source.

I echo the concerns you express in Chapter 10 and stand ready to assist the Legislature and others as we work to further stabilize and diversify state revenue over the long-term.

Sincerely,

Jonathan Ball
Legislative Fiscal Analyst

High-Risk List:
Identifying and Mitigating Critical Vulnerabilities in Utah