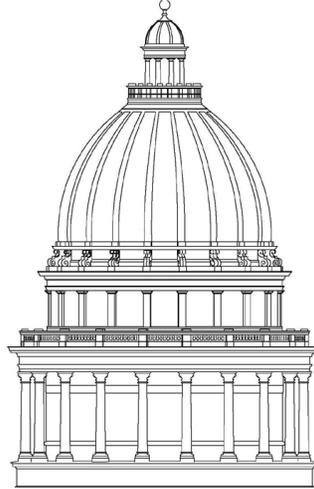


REPORT TO THE
UTAH LEGISLATURE

Number 2014-14



**A Follow-up Review of the Utah Science
Technology and Research Initiative (USTAR)**

December 2014

Office of the
LEGISLATIVE AUDITOR GENERAL
State of Utah



STATE OF UTAH

Office of the Legislative Auditor General

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JOHN M. SCHAFF, CIA
AUDITOR GENERAL

December 30, 2014

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report, **A Follow-up Review of the Utah Science Technology and Research Initiative (USTAR)** (Report #2014-14). A digest is found on the blue pages located at the front of the report. The objectives and scope of the audit are explained in the Introduction.

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,

A handwritten signature in black ink that reads "John M. Schaff" with a stylized flourish at the end.

John M. Schaff, CIA
Auditor General

JMS/lm

Digest of A Follow-up Review of the Utah Science Technology and Research Initiative (USTAR)

Chapter I Introduction

We were asked by the Legislative Audit Subcommittee to perform a two-fold review of USTAR: 1) report on the status of implementation of recommendations from our October 2013 audit of the initiative, and 2) verify the accuracy of information to be reported in USTAR's fiscal year 2014 annual report. Senate Bill 62, passed during the 2014 Legislative General Session, enacted new annual reporting and audit requirements for USTAR.

It is important to note that USTAR has experienced many challenges and changes since our prior audit of the program. At the end of 2013, USTAR welcomed a new finance manager and Governing Authority (GA) Chairman. In 2014, a new Executive Director was appointed to USTAR. Also, USTAR welcomed five new GA members and an internal auditor this year. Thus, there are many new USTAR officials learning about the initiative and working to implement program improvements. We believe strong progress is being made but it will require more time to sufficiently implement the statutory requirements. Due to continued program changes, this review of USTAR was limited.

Chapter II USTAR's Implementation of Audit Recommendations Is in Process

In October of 2013, we released *A Performance Audit of the Utah Science Technology and Research Initiative (USTAR)*. In total, we made 15 recommendations aimed at helping USTAR improve various aspects of its operations. Overall, we found that USTAR has implemented seven of our recommendations while eight are in the process of being implemented. More clarity is still needed for how outcomes should be reported and how research team performance will be measured and benchmarked. USTAR is also still working to implement lease agreements and outreach performance measures. Lastly, the GA has made significant progress improving its governance processes.

Chapter III

USTAR Needs Time to Establish Detailed Reporting Processes Sufficient to Ensure Data Accuracy

We Could Not Verify the Accuracy of USTAR’s Performance Metrics. Although USTAR staff made a concerted good-faith effort to collect required information, some data was unavailable or delayed which limited our review. We focused our assessment on three key USTAR metrics: job-creation outcomes, external funding awards, and commercialization results. We found issues with these metrics, including: unavailable or changing data, inaccurate or inconsistent information, and a lack of clarity as to what should be included in metric reports.

USTAR Needs a Rigorous Process for Outcome Reporting. We believe the cause of issues with USTAR’s performance metrics is the lack of a rigorous data collection process. Given that the end of fiscal year 2014 brought new and extensive annual reporting requirements for USTAR, it is understandable that the data collection process needs refinement. In general, USTAR should improve its outcome reporting process in four ways:

1. Clearly defining metric definitions and count methodologies
2. Implementing required reporting forms and formats
3. Enacting required reporting time frames
4. Requiring its partners to provide access to source documentation

REPORT TO THE UTAH LEGISLATURE

Report No. 2014-14

A Follow-up Review of the Utah Science Technology and Research Initiative (USTAR)

December 2014

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Chapter I

Introduction

This report includes two parts. First, we completed a follow-up review of *A Performance Audit of the Utah Science Technology and Research Initiative (USTAR)* that was released in October of 2013. Second, we conducted a limited review of USTAR's (also referred to as the initiative) fiscal year 2014 annual report performance metrics. We conducted this work at the direction of the Legislative Audit Subcommittee.

Follow-Up of A Performance Audit of the Utah Science Technology and Research Initiative (USTAR)

In October 2013, we released an audit of USTAR (Report Number 2013-12). The audit resulted in 15 recommendations aimed at improving the operations and practices of the initiative. Our concerns at that time included:

- Reporting of performance outcome metrics
- Oversight of research team funding
- Oversight of USTAR's research facilities
- Management of Outreach programs
- Administration and governance of the initiative

As detailed in Chapter II, our follow-up review found that USTAR has made many improvements. However, recommendations from some areas of concern from our prior audit of USTAR are still in the process of being implemented.

A follow-up review, such as this, categorizes progress in fulfilling recommendations in four ways:

- **Implemented** – USTAR has addressed the recommendation in the manner intended.
- **In process** – USTAR has begun making the necessary improvements, but they have not yet been completed. The initiative intends to continue working towards implementation.
- **Partially implemented** – USTAR has taken steps toward implementing the recommendation, but has not fully completed it. No further action toward implementation is planned.

We conducted a follow-up review on a prior audit of USTAR and a limited review on the initiative's performance metrics.

Some recommendations from our prior audit of USTAR are still in the process of being implemented.

- **Not implemented** – USTAR has decided not to implement the recommendation or is awaiting some other action to take place.

As described in Chapter II, all 15 of our recommendations to USTAR are implemented or in process. None are only partially or not implemented.

Review of USTAR’s Fiscal Year 2014 Annual Report Metrics

Following the release of our 2013 audit of USTAR, the Legislature passed Senate Bill 62 (S.B. 62) during the 2014 General Session, in part to codify new and specific annual reporting requirements for the initiative. *Utah Code* 63M-2-401 requires USTAR to produce an annual report by October 1 of each year that details its revenues, expenses, and performance outcomes.

Along with these new annual reporting requirements in statute, *Utah Code* 63M-2-402 contains a new annual audit requirement for USTAR. Statute states:

- (4) The annual audit shall: (a) include a verification of the accuracy of the information required to be included in the annual report ... and (b) be completed by September 1 of each year.

Statute further directs that the required audit be conducted by the Office of the Legislative Auditor General or by an independent auditor engaged by our office.

After consulting with us, USTAR initially sought for this audit work to be completed by an independent auditor. Through a Division of Purchasing quote process, USTAR obtained work quotes from two private auditing firms by the middle of August 2014. Neither firm that submitted a quote anticipated the audit work could be completed by the September 1 deadline. Also, both auditing firms were ultimately determined to have prior business connections with USTAR or its governing authority members and therefore could not be awarded the work contract per statutory requirements.

At that point, we agreed with USTAR to complete the required audit work rather than delay the work further by obtaining more

Senate Bill 62 created new reporting and audit requirements for USTAR.

quotes from private firms. The Legislative Audit Subcommittee prioritized the audit work into our office's workload to be completed in conjunction with a follow-up review of the implementation status of our October 2013 audit recommendations.

USTAR Has Undergone Changes and Is Still In Process of Improvement

It is important to recognize the many challenges and changes faced by USTAR over the past year. Following our 2013 audit report, the initiative was the subject of a significant amount of legislative discussion concerning the performance and accountability of the program. That discussion, culminating in the passage of S.B. 62 during the 2014 General Session, clarified expectations and reporting requirements for USTAR.

In addition, USTAR has experienced changes to its management and Governing Authority (GA) this past year. USTAR welcomed a new finance manager and GA Chairman at the end of 2013. In addition, the Utah Senate confirmed the appointment of a new executive director for USTAR at the end of May 2014. Out of ten total GA appointments, USTAR also welcomed five new GA members from July to August 2014. Lastly, USTAR created and hired for a new internal auditor position in August of 2014. Thus, there are many new USTAR officials learning about the initiative and working to implement program improvements.

The new internal auditor position is especially noteworthy because it indicates a commitment by USTAR to ensuring that established processes are followed and reported program metrics are valid. While it is the responsibility of the GA and executive director to establish appropriate policies and procedures, the internal auditor can provide vital information to decision makers by testing compliance with and effectiveness of the established requirements.

USTAR has faced challenges and changes over the past year.

In 2014, USTAR welcomed a new Executive Director, five new Governing Authority members, and a new internal auditor.

Audit Scope and Objectives

As discussed earlier, the Legislative Audit Subcommittee directed us to:

- Follow up on the implementation status of recommendations made in our October 2013 *Performance Audit of the Utah Science Technology and Research Initiative (USTAR)*
- Review the accuracy of USTAR's fiscal year 2014 metrics anticipated to be reported in its annual report.

As we initiated our audit work with USTAR's newly-hired executive director and other staff, it became apparent that many audit recommendations were still in process of being implemented and some important performance metric data was not yet available. Given the recent changes described above, we thought USTAR needed more time to fully address the audit recommendations and new statutory reporting requirements. Therefore, we limited the scope of our work accordingly.

To follow up on our earlier audit recommendations, we discussed implementation status with USTAR, university, and outreach personnel. We also reviewed GA minutes and policies. Chapter II provides our assessment of the status of each recommendation.

Assessing the accuracy of the initiative's fiscal year 2014 performance outcomes was more challenging. Although USTAR's management was responsive to our requests for information, we encountered some data delays and changes during our review. Consequently, our review of USTAR's performance outcomes, as detailed in Chapter III, was limited. We focused on a few metrics of greatest concern as presented in our earlier audit of the initiative. The results of our review of the accuracy of USTAR's annual report metrics are found in Chapter III of this report.

Chapter II

USTAR's Implementation of Audit Recommendations Is in Process

In October of 2013, we released *A Performance Audit of the Utah Science Technology and Research Initiative (USTAR)*. Some recommendations made in that audit report are still in process. In total, we made 15 recommendations in that report; seven have been implemented and eight are in the process of being implemented.

Our audit report recommendations were aimed at helping USTAR (also referred to as the initiative) improve the following:

- Accuracy and reliability of performance metric reporting
- Oversight of university research team funding
- Oversight of USTAR-owned research buildings
- Management of outreach programs
- Administration and governance of USTAR operations

Although USTAR has taken many steps to improve the reporting of its performance metrics, more clarity is needed on how to review outcomes for accuracy and reliability. Similarly, USTAR is still determining an appropriate way to measure and benchmark the success of research teams that receive USTAR funding.

In addition, USTAR is still in the process of implementing final lease agreements that outline building use requirements and operation and maintenance (O&M) cost responsibility. Moreover, USTAR continues to work on clarifying how outreach program performance should be measured. Lastly, USTAR's Governing Authority (GA) has made significant progress improving its governance processes. However, the GA is still in the process of implementing a conflict of interest (COI) policy.

USTAR Is Working to Improve Its Performance Reporting Accuracy

In the year since our audit of USTAR, the initiative has taken steps to improve its reporting processes and the accuracy of its performance data. We found that two audit recommendations aimed at improving

Our 2013 audit of USTAR made 15 recommendations. Seven have been implemented while eight are still in process.

Two recommendations from Chapter II of our prior audit of USTAR have been implemented. Two other recommendations are in the process of being implemented.

performance data accuracy, found in Chapter II of our prior report, have been implemented while two others are still in process. Figure 2.1 outlines the wording of the recommendations, the implementation status, and a summary of USTAR’s efforts toward full implementation. Following the figure, a more detailed discussion of the implementation status of some of the recommendations is included.

Figure 2.1 Status of Recommendation Implementation for USTAR Metric Reporting Accuracy. Two of the four recommendations from Chapter II have been implemented. The remaining two recommendations are in the process of being implemented.

Recommendation	Status	Explanation
We recommend that USTAR report actual outcomes where possible and identify when estimates are being used when reporting performance metrics.	Implemented	USTAR has indicated in its draft fiscal year 2014 metrics when estimates are used. USTAR management declared their commitment to disclose if metrics are based on estimates.
We recommend that USTAR develop a methodology to accurately track, validate (post performance reviews), and report key metrics such as jobs created, companies formed, and commercialization revenue generated to ensure that reported information is accurate.	In process	USTAR hired an internal auditor to review the accuracy of its performance metrics and the GA implemented a subcommittee to review performance outcomes. However, policies and procedures to formalize validation methodologies have yet to be developed.
We recommend that USTAR develop measures for defining high-quality jobs.	Implemented	Passed during the 2014 Legislative General Session, S.B. 62 implemented job-reporting requirements for USTAR.
We recommend that USTAR report to the Legislature an accurate return on investment, which is the change to the state’s tax revenues.	In process	USTAR has a new methodology to estimate its impact on state tax revenues. However, we question the accuracy of the job counts used in the calculation.

Source: Auditor analysis

During our 2013 audit, USTAR’s lack of methodology to internally validate the accuracy of its reported outcomes was a primary concern. USTAR indicated it has taken two main actions to address this recommendation: 1) creating a new internal auditor position, and 2) implementing the Strategy and Assessment subcommittee of the GA.

USTAR management stated the internal auditor was hired in August 2014 and will be tasked with an annual review of the initiative’s performance metric outcomes to ensure accuracy and reliability of information. That same month, the GA also passed a motion creating five subcommittee groups. In part, the Strategy and Assessment subcommittee will “examine outcomes for each component of USTAR on a recurring basis.” While hiring an internal auditor and creating a GA subcommittee to review outcomes are both positive steps toward implementing the recommendation, methodologies need to be in place to direct how outcome reviews and metric validation will be conducted.

Also, with the passage of Senate Bill 62 (S.B. 62) during the 2014 Legislative General Session, new job reporting requirements for USTAR were implemented. Specifically, in its reporting of jobs created, USTAR must identify “the number of jobs where the employee is expected to be employed for at least one year and earns at least 125% of the prevailing wage of the county where the employee works...” However, as will be discussed in Chapter III, USTAR did not consistently apply this new job reporting requirement to its fiscal year-end 2014 metrics.

In addition, USTAR worked with the Office of the Legislative Fiscal Analyst to develop a methodology to estimate the initiative’s impact on state tax revenues. The methodology derives this estimate by multiplying *actual job counts* with *averages of actual wages*, and then multiplying this amount by the state’s 5 percent income tax rate. USTAR management indicated that average salary data is only available for jobs funded, at least in part, by the USTAR program – such as state or university jobs. Therefore, USTAR will not provide an estimate this year of the tax impact of private jobs it reports to have helped create. Also, USTAR does not plan to report a return on investment (ROI) metric for fiscal year 2014 because management does not believe they currently have all the necessary information to provide such an estimate reliably.

USTAR created an internal auditor position that will be tasked with an annual review of the initiative’s performance metrics.

Senate Bill 62 enacted new jobs-created reporting requirements.

Although USTAR has implemented a new method to report its impact on state tax revenues, the initiative's job count data needs refinement.

Although USTAR has taken steps to implement our recommendation to report its impact on state tax revenues, we have concerns with the accuracy of the *actual job count* USTAR used in the calculation to estimate the tax revenues for fiscal year 2014. This will be discussed in more detail in Chapter III of this report.

More Clarity on Research Team Expectations And Reporting Requirements Is Needed

In Chapter III of our 2013 audit, we made three recommendations to improve USTAR's oversight of research team funding. All three recommendations are in the process of being implemented. Figure 2.2 outlines the status of these three recommendations.

Figure 2.2 Status of Recommendation Implementation for USTAR’s Oversight of Research Teams. All three recommendations from Chapter III are in the process of being implemented.

Recommendation	Status	Explanation
<p>We recommend that USTAR clarify and formalize required reports from research teams, including:</p> <ul style="list-style-type: none"> a. Ensuring that reports required by Governing Authority administrative rule, contract, or policy are received. b. Specifying what metrics research teams must report and how they are defined. c. Where possible, establishing benchmarks or expected performance levels for metrics that research teams are expected to achieve. 	In process	While the GA has adopted interim performance metrics for research teams, USTAR management reports more work is needed to formalize the metric reporting process. USTAR is also in the process of determining how to benchmark research team performance.
<p>We recommend that USTAR clarify and formalize required reports from universities, including:</p> <ul style="list-style-type: none"> a. Ensuring that annual reports of commercialization revenue required by Governing Authority administrative rule are received. b. Clarifying in administrative rule how a USTAR project should be defined to ensure that commercialization revenue is appropriately distributed. 	In process	USTAR management indicates that while commercialization data is being received, more work is needed to formalize the reporting process. Also, USTAR has yet to clarify in administrative rule how a USTAR project is defined for revenue-sharing purposes.
<p>We recommend that USTAR review the approval and use of research team funding by universities to ensure that:</p> <ul style="list-style-type: none"> a. Research team program budgets required by Administrative Rule are received and approved by the Governing Authority before funds are released. b. Future commitments to fund USTAR faculty salaries are understood and documented. c. Expenditures comply with legislative intent to fund USTAR research teams and only cover non-team expenditures that are specifically approved by the Governing Authority. 	In process	In FY 2014, no new research teams have been approved and are subject to budget approval requirements in administrative rule. USTAR reports it has completed a review of researchers’ salary commitments but has yet to confirm a general understanding with the universities. Also, the GA has approved continued funding for existing university research programs.

Source: Auditor analysis

In August of 2014, the GA adopted a list of interim performance metrics for research teams at the U of U and USU. However, as will be discussed more in Chapter III, more clarity is needed regarding how metrics should be counted and documented. Also, there is not a reporting deadline for these metrics. In addition, USTAR used an ad hoc reporting process to obtain metric outcomes for the 2014 fiscal

More work is needed by USTAR to clarify research team performance metrics.

year end. We believe USTAR should formalize the reporting process and deadlines in its policies and procedures. Furthermore, USTAR plans to work with consultants to review how similar organizations benchmark performance outcomes of research work.

Administrative rule requires the U of U and USU to report commercialization outcomes to USTAR within 45 days of the end of the fiscal year, or we estimate about August 15th. USTAR management indicated that the U of U submitted these metrics about a week before this date but USU missed the reporting deadline by about a month. Also, USTAR is still in the process of determining how a commercialization project is defined as revenue sharing has yet to be clarified in an administrative rule. In addition, although the GA approved draft commercialization metric definitions in November 2013, we believe more clarification is needed. For example, the USTAR metrics define a job on a full-time equivalent (FTE) basis; however, fiscal year 2014 reporting on jobs was not accounted for by FTE. This will be discussed more in Chapter III.

Lastly, during this follow-up review of USTAR, management reported they recently completed a review of all salary commitments made to USTAR researchers (ongoing salary commitments are paid with USTAR appropriations) as contained in memorandums of understanding (MOUs) between researchers and the U of U or USU. However, USTAR indicated its review should only be considered an initial assessment as the results have yet to be discussed with all interested parties at the universities.

USTAR Facility Lease Agreements Are Still in Process

In Chapter IV of our 2013 audit, we made one recommendation to improve USTAR's oversight of its research facilities. This recommendation is still in the process of being implemented as outlined in Figure 2.3.

USTAR is still in process of clarifying commercialization revenue sharing rules.

Work to fully understand salary commitments to USTAR researchers continues.

Figure 2.3 Status of Recommendation Implementation for USTAR’s Oversight of Research Buildings. The one recommendation from Chapter IV is in the process of being implemented.

Recommendation	Status	Explanation
We recommend that USTAR establish lease agreements with University of Utah and Utah State University for the occupancy and use of its facilities, including responsibility for payment of O&M costs.	In process	USTAR management reports that formal lease agreements are currently being negotiated with the U of U and USU and are expected to be executed in the near future.

Source: Auditor analysis

Following our 2013 audit, temporary MOUs were executed between USTAR and both the U of U and USU to outline facility use terms, including O&M cost responsibility. However, USTAR management reports that final lease agreements with the universities are still in the process of being negotiated. They expect these lease agreements to be in effect in the near future.

It is important to note that O&M responsibility differs between the U of U and USU, as detailed in the fiscal year 2014 MOUs with USTAR. USU is expected to cover all USTAR facility O&M costs while the U of U is allowed to pay its USTAR facility O&M costs using USTAR appropriations. Figure 2.4 outlines how USTAR facility O&M expenses have been paid since fiscal year 2008.

USTAR is working to implement final building lease agreements. Also, O&M responsibility remains different between the U of U and USU.

Figure 2.4 Universities Contribute Inconsistent Levels of Support to USTAR’s O&M Costs. Between fiscal years 2008 and 2014, USTAR research team funds were used to cover the majority of facility O&M costs (about \$7.7 million of \$10.5 million total costs). In fiscal year 2014, USU began paying all of its USTAR O&M costs while the U of U did not contribute to its USTAR facility expenses.

Fiscal Year	USTAR Facility at the U of U		USTAR Facilities at USU	
	USTAR-paid Portion	U of U-paid Portion	USTAR-paid Portion	USU-paid Portion
2008	-	-	\$195,322	\$0
2009	-	-	204,682	0
2010	-	-	200,275	0
2011	-	-	558,367	142,028
2012	1,743,711	0	678,416	341,052
2013	1,833,830	0	309,750	1,090,290
2014	1,997,196	0	0	1,231,986
Total	\$5,574,737	\$0	\$2,146,812	\$2,805,356

Source: USTAR

Note 1: The USTAR facility at the U of U was not completed until fiscal year 2012.

Note 2: USU’s reported O&M costs for fiscal years 2008 to 2010 are only for the existing university building that was donated to USTAR. O&M costs for fiscal years 2011 to 2014 include the donated building and the new USTAR facility (and possibly Building 459 discussed below) that was completed in September 2010.

During this follow-up review, the U of U indicated it views the use of appropriations for USTAR research teams to cover its O&M costs as reasonable in exchange for its continued payments on a bond that helped fund the infrastructure surrounding the new USTAR facility on its campus.

In addition, during this review of USTAR’s facility agreements, we learned of a facility (Building 459) being included in the reporting of USU’s USTAR O&M costs beyond the two facilities (the new and donated facilities) we anticipated being included in the reporting. A USU official stated that this small facility (which includes algae pools for biofuels research) has always been included in the USTAR O&M costs as it requires electricity and water for its operations. USU indicated that Building 459 should be considered owned by USTAR because about \$700,000 of research team funds were used to construct it. However, it is currently unknown whether this facility should be considered capital infrastructure and be issued a title documenting USTAR’s ownership. USTAR management was unaware of this issue. We recommend that USTAR investigate its potential ownership of this facility at USU and obtain the correct ownership documentation if necessary.

USTAR should determine if it has an ownership interest in Building 459 at USU.

More Clarity on Outreach Program Expectations and Reporting Needed

In Chapter V of our 2013 audit, we made two recommendations aimed at improving USTAR’s management of its outreach programs. One recommendation has been implemented while the other is still in process. Figure 2.5 outlines the status of these two recommendations.

Figure 2.5 Status of Recommendation Implementation for USTAR’s Management of Outreach Programs. One of the two recommendations from Chapter V has been implemented. The remaining recommendation is in the process of being implemented.

Recommendation	Status	Explanation
We recommend that USTAR ensure that expectations are clear and metrics are established in up-to-date contracts and establish rules or policies and procedures to evaluate outreach program performance.	In process	USTAR management reports it is currently drafting policies and procedures for the operation of its outreach program and will present them to the GA for approval.
We recommend that the Governing Authority ensure current outreach programs and initiatives are consistent with legislative intent.	Implemented	Through formal motions or budget approvals, the GA has approved the continued operation of USTAR's outreach programs.

Source: Auditor analysis

During our 2013 audit of USTAR, we questioned whether the initiative was complying with legislative intent to have a maximum of five outreach centers as outlined in statute because there were four outreach centers and multiple other outreach programs. In November 2013, the GA voted to approve the combination of the Bio-innovations Gateway and the SBIR-STTR (federal research and development grants) programs as the fifth outreach center. USTAR management also reports the GA has continued to approve funding for the Go-to-Market grant program that is utilized by the outreach centers. While these actions by the GA essentially do not change any of its operations, they do clarify the degree to which the GA intends to comply with statute.

USTAR’s Governing Authority has taken action to reaffirm approval of the initiative’s outreach programs.

USTAR has implemented four of five recommendations made in Chapter VI of our prior audit of the initiative.

USTAR Has Made Significant Progress Improving Administrative and Governance Processes

Since our audit of USTAR in 2013, the GA has taken many steps to implement our recommendations from Chapter VI of that report, which were aimed at improving the administration and governance of the initiative. We found that the GA has implemented four of five recommendations, while one is still in the process of being implemented. Figure 2.6 outlines the implementation status of the recommendations from Chapter VI.

Figure 2.6 Status of Recommendation Implementation for USTAR’s Administration and Governance of Operations. Four of the five recommendations from Chapter VI have been implemented. The remaining recommendation is in process of being implemented.

Recommendation	Status	Explanation
We recommend that USTAR management ensure that operating policies and procedures are developed and ensure that all policies and procedures are approved by the Governing Authority.	Implemented	The GA approved USTAR's policies and procedures manual. The GA has also voted to approve other draft policies.
We recommend that the Governing Authority adopt a conflict of interest policy.	In process	The GA enacted a conflict of interest disclosure process but has not yet ratified a formal conflict of interest policy that defines how conflicts should be handled.
We recommend that USTAR management track the appointment of Governing Authority member terms, including the chair, and work with the Governor's Office to help ensure compliance with statute.	Implemented	GA member term information has been updated with the Governor's Office and the website: http://utah.gov/governor/boards
We recommend that the Governing Authority ensure that management keeps minutes in compliance with the State's Open and Public Meetings Act.	Implemented	Written GA meeting minutes detail action on motions. Audio recordings of meetings are taken and preserved.
We recommend that the Governing Authority ensure that closed meetings are held in compliance with the State's Open and Public Meetings Act.	Implemented	The GA has implemented a process to ensure meeting closure is appropriate and the purpose is documented.

Source: Auditor analysis

Following our 2013 audit of USTAR, the GA implemented a form for members to report their conflict of interest status. However, the GA is still in the process of implementing a formal conflict of interest policy that defines how disclosed conflicts should be handled.

The Governing Authority is in the process of implementing a conflict of interest policy.

The Governing Authority has implemented processes to ensure compliance with open meeting laws.

Also, it appears that USTAR has improved the format of its written GA meeting minutes to more clearly document action on motions. For example, the GA's August 7, 2014 meeting minutes contain the names of members who propose and second motions. This information was not recorded in earlier meeting minutes. Written meeting minutes are now also available on USTAR's website.¹ We also observed that USTAR management is maintaining audio recordings of the GA's open meeting minutes.

In addition, the GA has implemented the use of a new closed meeting checklist form. We reviewed several executed forms and found that they document when a closed meeting occurs, voting by GA members to enter the closed meeting, and the purpose for the closed meeting. The completed checklists also include notarized signatures by the GA chairman declaring that the closure of the meeting was appropriate, as required by open meeting laws.

Recommendation

1. We recommend that USTAR investigate its potential ownership of Building 459 at Utah State University and obtain the correct ownership documentation if necessary.

¹ For copies of the GA's open meeting minutes, see:
<http://www.innovationutah.com/news-events/meeting-minutes/>

Chapter III

USTAR Needs Time to Establish Detailed Reporting Processes Sufficient to Ensure Data Accuracy

In conjunction with our follow-up review of the implementation status of recommendations from our October 2013 audit of USTAR (the initiative), we were tasked to verify the accuracy of information to be reported in the initiative's fiscal year 2014 annual report.² However, we discovered that it was premature to conduct a full review of USTAR's performance metrics for two reasons. First, USTAR has been an agency in turmoil over the past year, as mentioned in Chapter I, and has undergone many changes to its governance and management. Second, as detailed in Chapter II, USTAR is still in the process of implementing our earlier audit's recommendations designed to help improve the program. Therefore, we believe USTAR needs more time to fully implement program improvements.

At the beginning of this review, we found that some information required for USTAR's annual report was not available or sufficiently organized for review. However, it was evident that USTAR staff had made a concerted good-faith effort to collect the required information. It took the initiative's management a few weeks to clarify its performance metric data to enable us to sample some data for review. Even then, we found that some source documentation from USTAR's various partners for performance metrics was not readily available.

Since it was not feasible to do a full review of all performance metrics, we limited our review to a few key metrics that were areas of concern during our last audit of USTAR. These key performance metrics are:

- Job-creation outcomes
- External funding awards
- Commercialization results

² See Appendix A for a complete listing of USTAR's statutory annual reporting requirements as found in *Utah Code* 63M-2-401.

We were tasked to verify the accuracy of USTAR's fiscal year 2014 performance information.

This chapter includes our limited review of three key USTAR performance metrics.

Recommendations for improving USTAR's outcome reporting are in the last section of this chapter.

Our review of these key USTAR metrics found some specific issues, including unavailable or changing data, inaccurate or inconsistent information, and a lack of clarity as to what should be included in metric reports. These issues will be discussed in the following section that outlines our review of USTAR's key performance metrics.

It is important to note that USTAR management stated that they too have experienced difficulty obtaining reliable information and documentation from their various partners that generate performance data. We believe the cause of issues we found with USTAR's outcome metrics is the lack of a rigorous data collection process. Given that the end of fiscal year 2014 brought new and extensive annual reporting requirements for USTAR, it is understandable that the data collection process needs refinement and that USTAR needs more time to implement program improvements. Our recommendations for improvement will be discussed in the final section of this chapter.

We Could Not Verify the Accuracy of USTAR's Performance Metrics

Our review of some key performance metrics provided by USTAR found the metrics to be unreliable. This problem was caused, at least in part, by inconsistency in and uncertainty about collecting and compiling metric data. We reviewed e-mails and attachments sent by USTAR staff requesting data from universities. While a good start, the data requests left room for interpretation. Furthermore, USTAR's compilation of the provided data into performance metrics raises concerns. Specific examples of concerns with each of three key metrics (jobs, external funding, and commercialization) are discussed next.

Concerns with USTAR's Jobs-Created Data

We found USTAR's job count metric to be questionable. Private industry job counts were still being taken at the time of our review so we were limited to looking at publicly-funded positions. Also, we question USTAR's current practice of counting jobs of lower salary levels (that appear to be part-time and temporary jobs) equivalent to jobs of higher salary levels. Further, job counts did not fully adhere to the initiative's statutory reporting requirements nor its own internal count methodology. USTAR should implement formal policies and procedures for how job creation counts should be conducted and

The next few sections of this chapter provide examples of concerns with USTAR's performance metrics.

calculated, what should be included in the count, and how the existence of jobs should be documented for verification purposes. Figure 3.1 outlines the state job count provided to us by USTAR.

Figure 3.1 USTAR’s Reported Count of State Jobs for Its Fiscal Year 2014 Annual Report. USTAR reported the creation of 417 state-funded jobs including 142 high-quality jobs.

	High-Quality Jobs	Lower-Paid Jobs	Total Jobs
State-Funded Jobs	142	275	417

Source: USTAR fiscal year 2014 draft annual report tables

As shown in Figure 3.1, USTAR reported to us a state-funded job count of 417 jobs. 142 jobs were reported separately from the rest under a designation of high-quality jobs. However, we question the accuracy of USTAR’s job counts.

USTAR’s Private Sector Job Count Was Not Completed in Time for Our Review. During our review, USTAR had differentiated its job metric into two main categories: 1) state jobs and 2) private sector jobs. The state jobs are those funded at least in part by USTAR’s state appropriations. The private sector jobs are those created by private industry with some kind of assistance from USTAR. However, the private sector job count was still in process at the time we took samples of USTAR’s job data. USTAR management indicated that a new internet survey method had been recently implemented to acquire private sector job data, but completed survey data had not yet been received. Also, due to a low survey response rate, management was in process of conducting supplemental phone surveys.

USTAR’s private sector job count was not completed in time for our review.

We Question Whether Jobs of Varied Wage Levels Should Be Reported as Equivalent Jobs. As shown in Figure 3.1, USTAR reported its job count by a threshold differentiating high-quality jobs from other lower-paying jobs. When we reviewed the detailed salary data for the lower-paying jobs, we questioned whether some jobs should be counted at all. Alternately, at a minimum, jobs could be summarized by salary ranges for greater transparency.

Lower wage jobs cover a wide salary spread. We question if USTAR should be counting such jobs as equivalent jobs.

To illustrate the issue, we found that most of USTAR’s 275 reported lower-wage jobs did not meet a salary of \$15,080 - the

annual salary of a minimum wage employee working 40 hours per week. These jobs are summarized in Figure 3.2.

Figure 3.2 Auditor Analysis of USTAR’s Reported State Jobs. By applying an upper threshold of \$15,080 to USTAR’s reported lower-paid job data, we found that 209 jobs did not meet the annual salary level of a full-time minimum wage employee.

Wage Level Below Minimum Wage FTE	Number of Jobs
\$15,079 to \$10,001	34
\$10,000 to \$5,001	54
\$5,000 to \$1,001	86
Under \$1,000	35
Total	209*

Source: Auditor analysis

** The auditor removed four jobs from this count that were reported in error by USTAR.*

As shown in Figure 3.2, 209 of the 275 lower-paid state jobs reported by USTAR paid less than a full-time minimum wage job (\$15,080) in fiscal year 2014. Further, 35 jobs included in USTAR’s metric count reported wages less than \$1,000. We believe many of these jobs were part-time or temporary positions. However, these lower paying jobs were counted as equivalent to jobs that fell just below the 125 percent average county wage (high-quality job) threshold. We do not believe that jobs of varied lower wage levels should be reported as having equivalent economic impact to the state.

To further illustrate our concern, the reported jobs that fell below the high-quality job threshold presented a wide salary spread. Specifically, below this threshold, the U of U reported jobs with a salary range of \$51 to \$57,333. Documentation for one job included in the count showed only one pay period was worked for a total salary of \$380. Under USTAR’s current reporting practice of counting any wages as jobs (instead of following the GA’s direction for a FTE-based job count), the described jobs were counted and reported as equivalent jobs. We question if some jobs with lower salaries should be included in USTAR’s metric.

USTAR’s Job Count Was Inconsistent with Reporting Requirements. As mentioned in Chapter II, Senate Bill 62 (S.B. 62), “Utah Science Technology and Research Governing Authority Amendments”, 2014 General Session, codified threshold requirements by which USTAR should report its job counts. Specifically, USTAR is required to report:

209 state jobs paid less than a full-time minimum wage job.

... the number of jobs and corresponding salary ranges created by the USTAR initiative, including the number of jobs where the employee is expected to be employed for at least one year and earns at least 125% of the prevailing wage of the county where the employee works...

Although subject to this new reporting requirement, USTAR management instead used a variation of the statutorily set method to conduct its draft fiscal year 2014 job count. Specifically, USTAR staff indicated to us that they applied the 125 percent of the average county wage threshold for jobs in Salt Lake, Davis, Utah, and Weber counties (urban counties), but applied a threshold of 100 percent for all other counties (rural counties). If job wages met these thresholds, USTAR designated them as high-quality jobs.

Applying its own method instead of following statute caused USTAR to misclassify 21 lower-paid state jobs as high-quality jobs. Also, USTAR's reported state job count did not include information about whether jobs were expected to last at least one year, another S.B. 62 requirement.

In addition, after the release of our October 2013 audit of USTAR, the GA approved draft commercialization definitions that indicated jobs should be calculated on a full-time equivalent (FTE) basis. However, USTAR's draft fiscal year 2014 job count was not calculated on an FTE basis. Instead, USTAR counted as jobs any positions that received any level of compensation. This led to jobs with a wide range of salaries being counted as equivalent jobs. Because jobs were not reported on an FTE basis as directed by the GA, we question whether USTAR's job count provides an accurate depiction of its impact on job creation.

Concerns with USTAR's University External Funding Data

Our review of USTAR's university external funding awards raised some concerns. First, we found that some reported external funding awards corresponded to university faculty who are not USTAR-designated researchers and/or did not receive funding through the USTAR initiative in fiscal year 2014. It is unclear whether funding awards from such researchers should be considered related to USTAR and counted in its external funding outcomes. Second, we found that the U of U and USU reported the award amounts differently. Third,

USTAR's job count method partially conflicted with new statutory reporting requirements.

USTAR's job count was not reported on an FTE basis as laid out in internal policy.

the award data for USU was found to be outdated and was changed by USTAR during our review.

After meeting with USTAR management to clarify the draft fiscal year 2014 university external funding metric, they reported total awards of about \$28.5 million. Figure 3.3 summarizes USTAR’s reported university external funding awards for fiscal year 2014.

Figure 3.3 USTAR’s Reported External Funding Awards at Research Universities for Its Fiscal Year 2014 Annual Report. USTAR indicated that the U of U and USU generated external funding awards of about \$28.5 million during fiscal year 2014.

	External Funding Amount	Number of Individual Awards
University of Utah	\$ 14,433,581	93
Utah State University	14,011,353	53
Total	\$ 28,444,934	146

Source: USTAR fiscal year 2014 draft annual report tables

We selected a sample of awards at each school by high dollar value (44 awards at the U of U and 29 awards at USU). USTAR management did not possess the source documentation for the awards, so we approached staff at the individual schools to supply the source documentation that would allow us to determine the accuracy of the reported information. In each case, the documentation matched the amounts reported. However, a number of concerns arose, as discussed next.

It Is Unclear Whether Non-USTAR Researchers Should Be Included in USTAR’s University External Funding Metric. We cross-referenced our sample of reported external funding awards with the initiative’s list of USTAR-designated researchers. USTAR-designated means a researcher has a memorandum of understanding (MOU) with the U of U or USU specifically indicating a relationship with USTAR. Several external funding awards counted in USTAR’s performance measures had been awarded to university faculty that do not have a USTAR-designated MOU.

We took this analysis a step further by cross-referencing our external funding awards sample with individuals who received funding from USTAR. We found that some researchers who do not have USTAR-designated MOUs received USTAR funding in fiscal year

Some researchers included in USTAR’s external funding count are not USTAR-designated faculty and may not have received USTAR funding.

2014 while others did not. Figure 3.4 outlines the level of association these researchers have with USTAR.

Figure 3.4 Researchers Included in USTAR’s External Funding Award Counts May Not Have a Clear Association with USTAR.

Only 25 of the 37 researchers included in USTAR’s external funding metric (from our sample) are USTAR-designated faculty.

	USTAR-Designated Researchers	Non-USTAR Researchers that Received USTAR Funding	Non-USTAR Researchers that Did Not Receive USTAR Funding	Total
University of Utah	21	2	0	23
Utah State University	4	4	6	14
Total	25	6	6	37

Source: Auditor analysis of USTAR, U of U, and USU data.

As Figure 3.4 shows, 25 out of 37 total researchers included in our sample of external funding awards have a clear USTAR tie through USTAR-designated MOUs. The other 12 researchers counted in the metric are not USTAR-designated and several also did not receive USTAR funding. The two non-USTAR researchers at the U of U accounted for only two percent of the total external awards in our sample of that school (or about \$275,000 of \$13 million). However, the ten non-USTAR researchers from USU accounted for 80 percent of the school’s total external awards in our sample (or about \$10.6 million of \$13.3 million).

We question why such cases are included in the count of USTAR’s external funding award metric. Does receiving USTAR funding qualify a researcher’s external funding awards to be counted towards USTAR’s performance? If a non-USTAR designated researcher does not receive USTAR funding, how does this researcher’s work qualify to be counted towards USTAR’s outcomes? We believe that USTAR needs to answer these questions by developing detailed metric counting and reporting procedures.

Does receiving USTAR funding qualify a researcher to be counted towards the initiative’s performance?

The U of U and USU used different methods to count external funding awards.

The U of U and USU Count and Report External Funding Differently. The U of U counts its awards in the fiscal year annual installments are received. Conversely, USU counts external funding by lump sum amounts in the fiscal year the award is granted, regardless of whether the funds are received over multiple fiscal years. On occasion, there are amendments to awards that occur in a new fiscal year. USU counts these amendment installments in the new fiscal year they are received.

USTAR Was Working with Outdated USU External Funding Information. After our sample of external funding data was taken and source documentation requested, USTAR management told us that USU had updated its data without notice. USU had removed five grants (totaling almost \$700,000) from the list of USTAR’s reported external funding awards, two of which affected our sample of the data.

Concerns with USTAR’s Commercialization Data

After some work with USTAR management to clarify the draft fiscal year 2014 commercialization revenue metric, they reported to us a summary of amounts as shown in Figure 3.5.

Figure 3.5 USTAR’s Reported Commercialization Revenue Totals for Its Fiscal Year 2014 Annual Report. USTAR reports that USU has generated \$7,371 in net commercialization revenue. This data is cumulative since the inception (2006) of the USTAR Initiative. Fiscal year 2014 results were not reported separately.

Institution	Active Licenses	Gross License Revenue	Less Portion Paid for University Internal Commitments	Net Commercialization Revenue*
U of U**	11	\$ 48,841	\$ 48,841	\$ 0
USU	16	101,244	93,873	7,371
Total	27	\$ 150,085	\$ 142,714	\$ 7,371

Source: USTAR fiscal year 2014 draft annual report tables.

* Net revenue is calculated on an individual license basis.

** \$1,300 of the gross license revenue for the U of U was from a terminated license agreement. This agreement is not included in the active licenses total of 11.

All revenue and university internal commitments³ reported in the commercialization metric, as shown in Figure 3.5, were realized through various agreements between the universities and companies or other institutions. These agreements include conventional exclusive or non-exclusive license agreements, distribution and sales, purchase and license, inter-institutional, and software transfer agreements. Although USTAR reported a cumulative total of 27 “active licenses” through fiscal year 2014, only 10 active licenses, one terminated license, and one software application reported gross revenue from licensing fees, royalty income, or application sales.

As the metric is composed of only 12 revenue-generating items, and because commercialization revenue is an important metric to show the progress of USTAR, we requested source documents for all 12 items. Because USTAR management did not have this documentation, we requested the information from the universities. Our review of the source documentation raised a number of concerns and questions.

Commercialization Numbers from Universities Did Not Match USTAR’s Reported Values. Comparing the universities’ source documentation with USTAR’s original reported values showed that USTAR’s commercialization data was inaccurate and likely outdated. We sampled the source documentation provided by the U of U and USU and found multiple amounts that differed from USTAR’s reported revenues. Figure 3.6 provides two examples of how USTAR’s commercialization data did not match university-supplied source documentation.

We sampled all 12 items with gross revenue included in USTAR’s commercialization metric.

³ University internal commitments include all costs associated with protecting the intellectual property of the project and allocations to inventors.

Figure 3.6 Examples of USTAR’s Reported Commercialization Data Compared with U of U and USU Source Documentation.
 We found that USTAR’s original reported fiscal year-end 2014 values are inconsistent with university source documentation.

	Gross License Revenue*
University of Utah Example Agreement	
USTAR’s Originally Reported Value	\$ 0
U of U Source Documentation Value	\$ 4,177
Utah State University Example Agreement	
USTAR’s Originally Reported Value	\$ 12,793
USU Source Documentation Value	\$ 33,702

Source: USTAR, U of U, and USU
 *The gross license revenue originally reported by USTAR, as presented in this figure, is a subset of the gross revenue of Figure 3.5.

University source documentation included additional revenue not updated in USTAR’s commercialization information.

Figure 3.6 shows that, although USTAR originally reported no gross revenue for one individual U of U agreement, the U of U’s source documentation reported revenue of \$4,177. Also, USTAR originally reported almost \$13,000 in gross revenue for one USU agreement, but source documentation from USU indicated revenues were almost \$34,000.

Net commercialization revenue did not match between USTAR and university source documentation.

Also, as shown in Figure 3.5, USTAR reported a total net revenue of \$7,371;⁴ all generated by USU. However, according to USU’s source documentation summary, cumulative net revenue is \$6,246. Thus, USTAR’s fiscal year-end 2014 reported value is inconsistent with university source documentation. Although not material at this point, the difference between these values presents a concern with the metric reporting process. Overall, we question the accuracy of USTAR’s commercialization data. It appears that USTAR’s originally reported commercialization information for the U of U and USU was outdated and did not contain a full reporting of information through the end of fiscal year 2014.

⁴ During our last audit of USTAR, USU reported commercialization revenue of \$33,000. As we carried out this verification process of USTAR’s reported numbers, it became clear that the \$33,000 reported last time was gross revenue, or the equivalent of the Gross License Revenue column in Figure 3.5, instead of a net revenue.

The U of U and USU Reported Their Commercialization Data to USTAR Inconsistently. Following the release of our October 2013 audit of USTAR, the initiative's Governing Authority (GA) voted to approve a commercialization report format. However, these guidelines are not being consistently followed. USU reported its 2014 fiscal year-end commercialization data using USTAR's prescribed format, while the U of U provided the information in its own format, which included additional fields. Inconsistent reporting of information makes comparisons and summary of information difficult.

Most University Internal Commitments Have Yet to Be Covered by Revenues. It is important to note that USTAR's commercialization metric only includes the portion of university internal commitments covered by generated revenues. Using U of U data as an example, as shown in Figure 3.5, only \$48,841 in internal commitments were reported that were covered by the revenues generated from three agreements. However, USTAR's original summary of U of U commercialization data showed total internal commitments for these agreements of about \$57,000. Thus, gross license revenue generated above \$48,841 would not necessarily translate to net commercialization revenue because other internal commitments have yet to be covered. In addition, USTAR reports that total internal commitments are about \$264,000 for the other active U of U licenses that have not yet generated revenue.

USTAR Needs a Rigorous Process For Outcome Reporting

We believe the reason for the data concerns described in the prior section is that USTAR has not adequately specified metric definitions and reporting mechanisms. As mentioned earlier, USTAR staff put forth a concerted good-faith effort to obtain information, but we think this first-year process of implementing new reporting requirements was too informal and requires refinement. Going forward, USTAR should establish clear metrics and count definitions as well as reporting formats and time frames in administrative rules or contracts with its partners. A formalized process should put USTAR in the position to make future funding awards to universities and outreach centers contingent on them providing USTAR with statutorily required information. USTAR should also determine the level of source

USTAR's commercialization reporting format was not consistently followed.

It is important to note there are additional university commitments that have not yet been covered by revenues.

Although USTAR made a good effort, its reporting process requires refinement.

USTAR should ensure that reporting requirements are reasonable and realistic.

documentation required to be submitted with its partners' reported metrics to allow its new internal auditor to effectively verify the accuracy of annual performance outcomes.

As it establishes a more rigorous outcome reporting process, USTAR should work closely with funding recipients to ensure that reporting requirements are reasonable and realistic. If necessary, USTAR might even consider petitioning the Legislature to amend some of the reporting requirements shown in Appendix A. However, we think the reporting requirements established by S.B. 62 provide a needed and important level of accountability for the USTAR program. Over time, detailed procedures that effectively guide USTAR's funding recipients will make reporting metrics easier and more accurate.

Overall, based on our limited review of USTAR's performance metrics, some specific items USTAR should address in procedures include the following:

1. Metric definitions and count methodologies. We found a number of instances where inconsistent, inaccurate, or unclear information was included in USTAR's reported outcomes. While some data concerns seem easily resolved (for example, should multi-year external funding awards be reported in annual installments or in lump sums), others are more complex.

To illustrate, we have concerns with how information related to non-USTAR-designated researchers (called "affiliates") is reported. Specifically, as stated in our prior audit, "It is questionable if USTAR should take credit for sponsored research related to affiliates unless USTAR clearly establishes the right to share in any potential commercialization revenues." We think USTAR should directly address whether funding awards received by non-USTAR researchers (whose commercialized work is not subject to standard USTAR agreements) should be included in USTAR metrics.

Of course, USTAR needs to establish how all program metrics, including those not discussed here, are defined, counted, and reported. The initiative's management should ensure that reliable and meaningful metrics are collected as directed by statute.

USTAR needs to clearly define how its metrics are counted and reported.

2. Reporting forms and formats. As discussed earlier, we found commercialization outcomes were reported inconsistently to USTAR by the U of U and USU. Also, as reported in Chapter II, USTAR's fiscal year 2014 call for data was conducted in an informal and ad hoc fashion. Instead, USTAR should implement detailed procedures to guide its partners in how data should be compiled and presented in performance reports. This guidance will provide metric consistency and comparability to USTAR management as they compile and verify the accuracy of reported outcomes.

3. Reporting time frames. We found some of USTAR's outcome data to be unavailable or changing. We believe that, along with metric definitions and reporting formats, USTAR should establish clear deadlines for metric reporting by its partners. Also, USTAR's partners should have a clear understanding that they are required to meet established deadlines.

4. USTAR access to source documentation. During our review, we noted that USTAR management does not collect or maintain source documentation when receiving summaries of performance outcomes from its various partners. We also found that when working with the initiative's partners, source documentation that validates reported outcomes was not always readily available for review.

USTAR management stated to us that they too have found it difficult to obtain some metric source documentation from their partners in a timely fashion. Management stated, for example, that they do not own university data and have to rely on school partners to provide requested information. However, they indicated that for fiscal year 2015 (the second year of the new statutory reporting requirements), they will work to improve their access to metric documentation.

We believe that prompt access to metric source documentation is vital to the future validation work of USTAR's newly hired internal auditor. USTAR should define required source documentation to ensure accurate, consistent, and reliable performance outcome reporting. USTAR's internal auditor agrees that access to source documentation for performance metrics is important to ensure information accuracy.

We believe that USTAR's new internal auditor needs prompt access to metric source documentation.

We believe USTAR's partners need a clear understanding of how outcomes should be reported.

In conclusion, USTAR needs to continue making progress toward improved performance metric reporting. USTAR has begun implementing policies for its performance metrics, as discussed in Chapter II, but detailed procedures for metric reporting have yet to be created. We believe detailed procedures are needed to ensure USTAR's partners have a clear understanding of how outcome reporting is to be conducted. Although we reviewed only a few of USTAR's key performance metrics, our recommendations for reporting improvements should be considered for all the initiative's performance metrics. Without specific reporting procedures established in administrative rules or contracts, we question if USTAR will be able to produce accurate, reliable outcome information to track the initiative's annual progress.

Recommendation

1. We recommend that USTAR formalize metric reporting requirements in administrative rule or contracts with funding recipients, including:
 - Clear definitions and count methodologies of metrics
 - Required reporting forms and formats
 - Required reporting time frames
 - Required access to source documentation

Appendices

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Appendix A

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USTAR'S Statutory Reporting Requirements: Utah Code 63M-2-401

Effective 5/13/2014

63M-2-401 Reporting requirements.

- (1) By October 1 of each year, the USTAR governing authority shall submit to the governor; the Legislature; the Business, Economic Development, and Labor Appropriations Subcommittee; and the Economic Development and Workforce Services Interim Committee an annual written report of the operations, activities, programs, and services of the governing authority and the USTAR initiative for the preceding fiscal year.
- (2) For each project, operation, activity, program, or service related to the USTAR initiative or overseen or funded through the USTAR governing authority, the annual report shall include:
 - (a) a description of the project, operation, activity, program, or service;
 - (b) data selected and used by the governing authority to measure progress, performance, and scope of the project, operation, activity, program, or service, including summary data;
 - (c) a clear description of the methodology for any data in the report that includes an estimation;
 - (d) the amount and source of all USTAR initiative funding, including:
 - (i) funding from legislative appropriations;
 - (ii) funding procured outside of legislative appropriations, including a separate accounting of grants or investments contributing to research teams and other activities of the USTAR initiative from the federal government, private entities, or other sources, and an explanation of the extent to which:
 - (A) outside funding was contingent on or leveraged by legislative appropriations; and
 - (B) outside funding would continue if legislative appropriations were discontinued;
 - (iii) commercialization revenue, including a separate accounting of:
 - (A) realized commercialization revenue;
 - (B) unrealized and expected commercialization revenue; and
 - (C) commercialization revenue going to other parties attributable to USTAR initiative funding;
 - (iv) lease revenue from each building in which the USTAR governing authority holds title; and
 - (v) the amount of money deposited with the state treasurer for deposit into the sinking fund created under Section 63B-1a-301 for debt service on the bonds issued to fund planning, design, and construction of the research buildings;
 - (e) all expenses of the USTAR initiative, including:
 - (i) operational expenses;
 - (ii) for each employee receiving compensation from USTAR initiative funding, compensation information, including:
 - (A) salary expenses, benefit expenses, and travel expenses;
 - (B) information for each research team employee and each employee of the technology outreach program that receives compensation directly or indirectly through USTAR initiative funding; and
 - (C) information regarding compensation for each employee from sources other than USTAR initiative funding, including grants and compensation from a university or private entity;
 - (iii) for each research team, salary expenses, benefit expenses, travel expenses, and operations and maintenance expenses;
 - (iv) operational and maintenance expenses for each building in which the USTAR governing authority holds title;
 - (v) operational and maintenance expenses paid for by USTAR initiative funding for each location that has an established technology outreach program; and
 - (vi) each grant or other incentive given as a result of the USTAR initiative, including grants or incentives awarded through the technology outreach program;

- (f) the number of jobs and the corresponding salary ranges created by the USTAR initiative, including the number of jobs where the employee is expected to be employed for at least one year and earns at least 125% of the prevailing wage of the county where the employee works;
 - (g) the name of each business entity receiving a grant or other incentive as a result of the USTAR initiative, including the outreach program;
 - (h) a list of business entities that have hired employees as a result of the USTAR initiative;
 - (i) the tax revenue generated as a result of the USTAR initiative, with actual revenue generated clearly separated from potential revenue;
 - (j) a list of intellectual property assets, including patents, generated by research teams as a result of the USTAR initiative, including a reasonable estimate of the USTAR initiative's percentage share of potential commercialization revenue that may be realized from those assets;
 - (k) a description of any agreements entered into regarding private equity investment in the USTAR initiative;
 - (l) beginning with data from the fiscal year beginning July 1, 2013, historical data from previous years for comparison with the annual data reported under this Subsection (2);
 - (m) goals, challenges, and achievements related to the project, operation, activity, program, or service;
 - (n) relevant federal and state statutory references and requirements;
 - (o) contact information of officials knowledgeable and responsible for each project, operation, activity, program, or service;
 - (p) other information determined by the USTAR governing authority that:
 - (i) may be needed, useful, or of historical significance; or
 - (ii) promotes accountability and transparency for each project, operation, activity, program, or service with the public and with elected officials;
 - (q) the written economic development objectives required under Subsection 63M-2-302(1)(e) and a description of any progress or challenges in meeting the objectives; and
 - (r) the audit report described in Section 63M-2-402.
- (3) The annual report shall be designed to provide clear, accurate, and accessible information to the public, the governor, and the Legislature.
- (4) The governing authority shall:
- (a) submit the annual report in accordance with Section 68-3-14; and
 - (b) make the annual report and previous annual reports accessible to the public by placing a link to the reports on the USTAR initiative's website.
- (5) In addition to the annual written report described in this section:
- (a) upon the request of a committee, the USTAR governing authority shall provide information and progress reports to the Economic Development and Workforce Services Interim Committee; the Business and Labor Interim Committee; and the Business, Economic Development, and Labor Appropriations Subcommittee; and
 - (b) on or before October 1, 2019, and every five years after October 1, 2019, the USTAR governing authority shall include with the annual report described in this section a written analysis and recommendations concerning the usefulness of the information required in the annual report and the ongoing effectiveness of the USTAR initiative, including whether:
 - (i) the reporting requirements are effective at measuring the performance of the USTAR initiative;
 - (ii) the reporting requirements should be modified; and
 - (iii) the USTAR initiative is beneficial to the state and should continue.

Enacted by Chapter 186, 2014 General Session

Agency Response

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December 29, 2014

John M. Schaff, CIA
Office of Legislative Auditor General
W315 Utah State Capitol Complex
Salt Lake City, UT 84114

Mr. Schaff,

On behalf of the Utah Science Technology and Research (USTAR) Initiative Governing Authority and staff, I extend our appreciation of the time, effort and attention reflected in the follow-up review of USTAR. I appreciate the recognition of your team that USTAR has made significant process in implementing the recommendations from the 2013 performance audit. I agree that we are still an organization undergoing significant change and are still working toward full implementation of your last audit's recommendations and the new statutory requirements enacted in May of 2014 through Senate Bill 62.

As your staff recognized, USTAR has had significant changes in leadership since the release of the 2013 audit, including me as Chair of the Governing Authority, five additional new members of the Governing Authority, a new Executive Director and critically we have added an internal auditor. Organizational and cultural change takes time, and the depth of change required to fully implement recommendations and assure compliance with SB62 has been greater than anticipated, as you well note.

For USTAR to fulfill its potential, it will need to continue the candid and pragmatic discussions occurring with stakeholders in Higher Education and the Legislature. As you point out in the audit report, accountability and transparency between USTAR, Utah's Research Universities and the legislature are critical. USTAR is committed to working with these stakeholders to develop and implement performance metrics and financial accounting that measures meaningful progress and holds all recipients of State taxpayer funds appropriately accountable. I am excited at what USTAR can accomplish when we have worked through the outstanding issues and established our new business model.



I very much appreciate your work and that of your audit team. We look forward to continuing to work with your office as we implement new policies and procedures to move our organization toward full implementation of all of your recommendations and of statutory requirements.

Sincerely,

Greg Bell, Chair
USTAR Governing Authority

Cc:
President Neiderhauser
Speaker Lockhart
Senator Davis
Representative Seelig
Vale Hale, Vice Chair, USTAR Governing Authority
Ivy Estabrooke