

**Short Title:** Science, Technology, Engineering and Mathematics (STEM) Action Center

Joint Rule 4-2-404 requires a Performance Review Note anytime the legislature significantly increases

funding for:  New agency  New services or benefits  Serving a new or larger population**Due to the Fiscal Analyst:** 2/19/2013**Contact Information****Respondent:** John G Bell**Title:** Financial Manager II**Agency:** Governor's Office of Economic Development**Cell:** 801.643.8650**Office:** 801.538.8877**e-mail:** johnbell@utah.gov**How will the public benefit?****1 What is the purpose and the duties of the new program, agency, services, or population served?** JR4-2-404(4)(c)(i)

The STEM Action Center will coordinate best-in-class STEM education resources for Utah's public schools, provide teachers with professional learning opportunities, engage students and parents in STEM activities and partner with other national STEM centers.

**2 What services are provided by the funding increase?** JR4-2-404(4)(c)(ii)

The STEM Action Center will coordinate State-wide efforts to improve STEM education and provide STEM career opportunities to students. The Center will: (1) create and maintain a comprehensive database of best practices in STEM opportunities for students, teachers and parents (2) create the first comprehensive, State-wide STEM network that works with key stakeholders in K-12 education, higher education, government, industry and community and cultural centers, (3) collaborate with the State Board of Education to improve STEM education through support of activities that address areas that have been determined to be critical in STEM education, (4) improve middle school STEM education, teacher professional advancement and create STEM-focused online courses, (5) collaborate and coordinate with industry to promote STEM efforts in the State and grow a STEM workforce, (6) coordinate with all stakeholders engaged in STEM activities to better leverage State resources and provide more effective and strategic STEM efforts and (7) will join national STEM networks to understand best practices being employed by other States.

The STEM Action Center will enable GOED to better market the State's investment into our future workforce. The State's focused investment into our future workforce will be used as a marketing tool to recruit business to the state.

**3** JR4-2-404(4)(c)(iii)

The state and public will benefit through better prepared and qualified individuals matriculating from the State's education programs. The emphasis on STEM should give graduates an edge in highly competitive job markets. The increase in STEM education and thus STEM career opportunities will increase high wage job options. Intended outcomes include (1) closing the opportunity and achievement gaps in under-represented populations within STEM, (2) improved opportunities for leveraging and acquiring resources for STEM education, (3) a STEM workforce that can support growth in Utah's STEM-based companies which will impact the State's overall economy, and (4) assist GOED in promoting state investment in Utah's future workforce and use that commitment to education as a marketing tool.

**4 How will the bill be implemented and what resources are available to achieve the expected outcomes?** JR4-2-404(4)(c)(iv)

The bill includes funding in the amount of \$15,000,000. Of this amount, \$1,000,000 will be used by the Utah State Office of Education to award grants to schools for STEM career and technical education. The remaining \$14,000,000 is to be appropriated to the Governor's Office of Economic Development to establish a STEM Action Center, to provide for or establish a physical location for the action center, and for education related instructional technology (lines 271-281).

**5 How will the proposed agency activities cause the expected outcomes and public benefit in 3?**

The action center addresses a critical gap that has been identified by a large group of Utah STEM stakeholders in K-12 education, higher education, government, industry and community and cultural centers. The center will provide coordination and collaboration to create a more unified and strategic State-wide plan to support and improve STEM education. The action center will seek for and implement educational best practices; align public and higher educational STEM activities with industry, government and community and cultural STEM efforts; and provide professional development and other assistance to educators and students.

## 2. Performance Measures:

What measures will managers and policymakers use to know if the new or expanded program is providing the expected outcomes and public benefits? Provide one, two, and three year goals or targets, actual results and measures if available to serve as a baseline, and outcomes.

**Goal (public benefit):** The Action Center will engage industry and business entities to support STEM programs.

**Measure Title:** Private and public collaboration

**Description:** The STEM Action Center will assess current industry engagement, identify needs for increasing industry engagement and work to leverage resources (human and programmatic) where it will have the greatest effect.

<b>Fiscal Year:</b>	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
<b>Target or Benchmark:</b>					
<b>Baseline:</b>	0.00%				

**How will program managers collect this performance information and ensure its reliability?**

The STEM Action Center Board will establish measurable criteria based explicitly on the language of the bill and will develop metrics.

**Goal (public benefit):** Improve the effectiveness of STEM instruction in grades 6-8th.

**Measure Title:** 6-8 STEM initiative

**Description:** The STEM Action Center will collaborate with the State Board of Education to improve instruction and student achievement in STEM education for grades 6-8.

<b>Fiscal Year:</b>	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
<b>Target or Benchmark:</b>					
<b>Baseline:</b>					

**How will program managers collect this performance information and ensure its reliability?**

The STEM Action Center Board, in collaboration with the State Board of Education, will establish measurable criteria based explicitly on the language of the bill and will develop metrics.

**Goal (public benefit):** Improve access to STEM academic and career information

**Measure Title:** STEM academic and career awareness

**Description:** The STEM Action Center will identify and promote best practices in STEM communication activities. The center will work with teachers, counselors, students and parents to determine more effective communication strategies to create awareness of the importance of academic achievement and how it relates to career opportunities in STEM.

<b>Fiscal Year:</b>	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
<b>Target or Benchmark:</b>					
<b>Baseline:</b>					

**How will program managers collect this performance information and ensure its reliability?**

The STEM Action Center Board will establish measurable criteria based explicitly on the language of the bill and will develop metrics.