



CRACKING THE CODE ON STEM

A People Strategy
for Nevada's Economy

Appoint a STEM Champion to Spearhead the State's STEM Education and Workforce Training Agenda

Problem

Moving Nevada toward a more diversified and more STEM-oriented economy will require a STEM workforce with the knowledge and skills needed by the state's target industries. At present, however, the absence of a clear statewide strategy for improving STEM education and workforce training and lack of coordination within state government pose sizable barriers to achieving this goal. Limited communication and cooperation among relevant state actors precludes unified efforts to improve Nevadans' STEM proficiency or to align STEM education and workforce training with industry demand.

Without an overarching state plan for developing robust STEM education and workforce training systems, Nevada will face great difficulty in preparing its residents for jobs in STEM-focused industries. By extension, if the state proves unable to produce the workforce needed to sustain growth in STEM-intensive fields, STEM firms will either be forced to import workers from outside Nevada or will locate in other states that possess larger numbers of STEM workers and more effective STEM education and training ecosystems.

Recommendation

To strengthen Nevada's STEM-oriented industries and expand the state's STEM workforce, the governor should appoint a STEM Champion to drive the development and implementation of a state STEM education and workforce training agenda. Given the importance of a STEM-knowledgeable workforce to the state's future economic health and the complexity involved in coordinating the many actors implicated, Nevada needs a full-time individual in the governor's office whose sole preoccupation is strengthening STEM education and workforce training in the state. First and foremost, this individual would work in conjunction with the governor to convey a clear vision for Nevada's STEM economy and articulate the importance of STEM to the economic prosperity of all Nevadans. In addition, the STEM Champion would be responsible for coordinating STEM-related activities across the Department of Employment, Training, and

Rehabilitation (DETR), the Governor's Office of Economic Development (GOED), the Governor's Workforce Investment Board (GWIB), the Nevada Department of Education (NDE), the Nevada System of Higher Education (NSHE), the nine industry sector councils, and the regional development authorities (RDAs). Working in consultation with a reconstituted STEM Advisory Council, the Nevada STEM Coalition, and other key stakeholders, the STEM Champion would design a plan for defining, scaling, and supporting STEM education and workforce training throughout the state. This strategy should set a clear direction for Nevada that includes a roadmap for meeting current and future STEM workforce needs in the state's target industries as well as metrics and performance management mechanisms to track progress over time.

Implementation Specifics

While STEM education and workforce development activities will ultimately be carried out through networks of regional actors, the STEM Champion will act as a central point person, working to guide and coordinate these efforts for maximum effect. Working with the governor's full and active support, the STEM Champion would demonstrate that STEM education and workforce training are high priorities for the state because they are critical to the future health of Nevada's economy.

This two-year, governor-appointed position would reside in the governor's office. Limiting the duration of the STEM Champion's tenure to two years will help compel action by creating a sense of urgency among all involved. The STEM Champion would be supported by two to three full-time support staff, possibly on loan from one or more of the state agencies implicated in developing and implementing Nevada's STEM strategy.

The STEM Champion's responsibilities would include:

- **Serving as primary coordinator of Nevada's STEM-related activities.** While the governor should emerge as the state's chief vision officer on STEM, the STEM Champion will function as the state's STEM coordinator in chief. To that end, the STEM Champion will:
 - Work with the governor to craft a clear, exciting, forward-looking vision of Nevada's STEM economy and the opportunities it offers
 - Work in consultation with the STEM Advisory Council, the Nevada STEM Coalition, Nevada educators, and other stakeholders to establish clear guidelines and expectations for quality STEM education and workforce training programs based on national standards of excellence
 - Set STEM education and workforce training goals and identify quantitative and qualitative metrics and mechanisms for performance management
- **Coordinating and integrating activities related to STEM education and workforce training** both across the state's agencies and industry sectors and down to Nevada's regions. Through horizontal and vertical outreach, the STEM Champion should help guide and align STEM education and workforce development throughout the state.

- To facilitate **horizontal coordination** across state agencies, the STEM Champion would:
 - Coordinate STEM activities within DETR, GOED, NDE, NSHE, the governor’s office, and any other state agency tasked with supporting STEM education and/or workforce development
 - Regularly engage with DETR’s industry sector councils as well as key private-sector stakeholders to ensure that STEM education and workforce training efforts align with industry demand
 - Seek consistent and valuable partnerships with the private sector, including consulting with RDAs and industry leaders and encouraging private-sector engagement with and investment in P-20 STEM education
- To facilitate **vertical coordination** throughout the regions, the STEM Champion would:
 - Communicate the state’s STEM vision, agenda, and guidelines for effective STEM education and workforce development to local school districts, career and technical education providers, private training providers, colleges, and universities
 - Work with GOED and DETR to improve coordination and communication with STEM-strong industries and clusters in the state’s metropolitan economic regions

Tennessee employed a similar approach in its efforts to increase postsecondary attainment among state residents. The Special Advisor to the Governor on Higher Education, appointed by Gov. Bill Haslam, worked to improve “affordability, access, and quality of state programs” related to postsecondary education. The governor also created a formal working group composed of the governor, the special advisor, and leaders from the Tennessee Higher Education Commission, the Tennessee Board of Regents, and the University of Tennessee to support the special advisor in his efforts. During the special advisor’s tenure, the state developed and launched its Drive to 55 initiative, which aims to increase the proportion of Tennesseans with postsecondary certificates and/or degrees to 55 percent by 2025.

Budget Implications

The costs involved in establishing a two-year STEM Champion position would likely fall in the \$300,000–\$500,000 range, which would include salaries for the STEM Champion and 2–3 FTE support staff, a travel budget for the STEM Champion, overhead and administrative expenses, and other incidentals. Some of these costs could be reduced if existing state agencies proved willing to loan space and staff to this effort.

References

“Haslam Announces Higher Education Initiative: Corporate Leader to Spearhead Effort in Coordination with State Leadership.” January 15, 2013. Available at <https://news.tn.gov/node/10157>.

For More Information

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