CRACKING THE CODE ON STEM

A People Strategy for Nevada's Economy

Establish an RDA-led STEM Internship Program

Problem

Many companies in STEM-intensive industries seek workers who have both a certain level of training or particular degree and some level of work experience—even for less senior positions. This second criterion poses a sizable barrier for many young people, who may possess the appropriate skills training and STEM knowledge but often lack work experience because they are just starting their careers. As a result, these individuals face difficulty finding work in the fields for which they trained, while companies struggling to fill positions effectively pass by a number of talented potential employees.

Meanwhile, a number of Nevada's STEM-focused companies may be willing to offer internships but lack the time, resources, and know-how needed to do so. Coordinating with high schools to advertise positions, screening applicants, and designing work-based learning experiences that benefit intern and firm alike all require a level of involvement and expertise that companies typically do not possess. Without a regional coordinator to help firms create internship opportunities and connect with area high schools, the number of available internships will remain low and of variable quality and duration.

Recommendation

To help a greater number of students obtain work experience prior to graduation, each regional development authority (RDA) should establish a STEM internship program that places qualified area high school and college students with local STEM-focused firms. A central coordinator at the RDA would conduct outreach to companies and schools, help schools recruit prospective interns, facilitate the application and hiring process, and help firms and interns develop individualized training plans to ensure that both parties get the most out of the internship experience.

Students that take part in the program would benefit from the opportunity to explore a particular STEM career firsthand. Over the course of the internship, interns would gain hands-on work experience that could strengthen their resumes and improve their future job

prospects. Internships would also reinforce the relevance of STEM education by allowing students to apply the knowledge and skills they have acquired in the classroom to real-world situations.

Firms would also derive benefit from participating in a well-coordinated STEM internship program. In addition to low-cost help, interns also can contribute creativity and unique perspectives on the firm's work. The program would also give firms a way to build connections with the next generation of STEM workers and demonstrate their commitment to the community.

Implementation Specifics

In order to get an RDA-led STEM internship program up and running, the RDA should begin by hiring a full-time program coordinator. This individual would be tasked with identifying and conducting outreach to prospective employers and schools; working with area schools and companies to recruit students, design applications, and develop internship guidelines for interns and firms; and facilitating the application and hiring process.

Participating employers would likely need ongoing support to address administrative or substantive questions that arose over the course of the internship period. The program coordinator could provide this help or, alternatively, could develop partnerships with schools and/or community-based organizations capable of fulfilling this function.

The STEP-UP Achieve program in Minneapolis offers one possible model for a regional, RDA-led STEM internship program. Established in 2004, this program offers 6–10 week internships for individuals aged 16–21. Students apply through a competitive process, with firms conducting interviews and making final determinations on hiring. Prior to the start of the internship period, each intern participates in a work readiness training program certified by the regional chamber of commerce to familiarize them with communication skills, professional conduct, problem solving, and other key workplace skills. Meanwhile, employers participate in a pre-internship orientation and receive a handbook and ongoing support over the course of the internship term.

At the start of the internship, the intern and her/his supervisor work together to create a training plan outlining the intern's responsibilities and expected learning outcomes. When the internship ends, the supervisor then uses this training plan to assess the intern's performance and progress. In addition to acquiring work experience, students also earn high school credit and an hourly wage equal to or greater than the area minimum wage of $7.25 per hour. Although STEP-UP Achieve is open to all industries and administered by a nonprofit entity affiliated with the area public school district, it could be easily adapted to a STEM-focused, RDA-led approach.

The Indiana INTERNnet program offers another possible approach. Created by the Greater Indianapolis Chamber of Commerce in collaboration with the University of Indianapolis, this web-based program matches employers with students at area high schools and colleges. In addition to its online database and matching system, INTERNnet also offers users individualized support through a toll-free hotline.

Budget Implications

An RDA-led STEM internship program could be launched for $100,000–150,000, which would cover salary and benefits for a full-time internship coordinator as well as the development and production of outreach materials, employer handbooks, intern and employer applications, a program website, training plan templates, and other collateral materials.

References

STEP-UP Achieve. "Employer Toolkit Fall 2014." Available at www.achievempls.org/sites/default/files/downloads/stepupachieve_employertoolkit_fall2014_0.pdf.

Indiana INTERN.net. "About Indiana INTERNnet." Available at https://indianaintern.net/about-indiana-internnet.

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