

OVAE CONNECTION

Report on Successful K–12 STEM Education (Continued From the Sept. 22 *OVAE Connection*)

[Successful K–12 STEM Education](#), a report prepared for the National research council, provides several criteria for evaluating the effectiveness of K–12 STEM education. One of these is to consider different types of schools and programs that focus on STEM—given the fact that STEM-focused schools “are often viewed as the best route to achieve desired STEM outcomes.” The committee that prepared the report was interested in finding evidence that a specific type of STEM model or school, on average, is more successful at producing strong student achievement outcomes than are other approaches. Generally speaking, “schools of interest are typically characterized by specific attention to STEM disciplines, often for a targeted population, such as highly talented students or students from underserved groups.” Giving specific attention to STEM subjects “frequently manifests itself in a rigorous curriculum that deepens STEM learning over time, more instructional time devoted to STEM, more resources available to teach STEM, and teachers who are more prepared to teach in the STEM disciplines.”

Three broad categories of STEM-focused schools were identified by the committee that are thought to have particular potential to meet the overarching goals for STEM education in the United States. These three categories are: (1) selective STEM schools, (2) inclusive STEM schools, and (3) schools with STEM-focused career and technical education (CTE). The committee’s investigation of these models led it to conclude that each of these types “has strengths and weaknesses and poses a unique set of challenges associated with implementation.” The committee found it challenging to attempt to specify which of these three approaches achieves the highest success “because success is defined in many ways and can occur in many different types of schools and settings, with many different populations of students.” The committee found it especially difficult to ascertain the extent to which the various outcomes and other attributes of a particular approach can be attributed to any specific curriculum or practice the school or program employs or the extent to which they are related to the population of students in the school. There was, for example, no evidence regarding whether STEM students in selective schools would have “been just as likely to pursue a STEM major or related career or make significant contributions to technology or science if they had attended another type of school.” Given this uncertainty, the committee presented a set of findings qualified by significant limitations along with a description of the school types to which these findings applied. Subsequent columns of *OVAE Connection* will consider more fully selective STEM schools, inclusive STEM schools, and schools and programs providing STEM-focused CTE.

Community College Grants for Workforce Development and Job Training Announced

On Sept. 26, 2011, Labor Secretary Hilda Solis and Education Under Secretary Martha Kanter announced nearly \$500 million in *Community College Career Training Initiative* grants. The grants are for targeted job training and workforce development for workers who are changing careers because they lost their jobs when the industry in which they worked was eliminated or consolidated. The awards constitute the first portion of a \$2 billion four-year investment designed, in conjunction with the president’s *American Jobs Act*, to provide support for hiring and re-employment services. Every state will receive at least \$2.5 million and as much as nearly \$25 million for community college career training programs. States without a winning submission in this round are being contacted by the program’s administrators to develop a qualifying initiative that will immediately provide \$2.5 million.

These grants support partnerships between community colleges and employers to develop programs that provide pathways to good jobs by, for example, building instructional programs that meet specific industry needs; strengthening technology-enabled learning; and allowing students and workers to access free learning materials online. Every community college grantee has at least one employer partner who is a sponsor with available jobs and who needs workers trained to fill those jobs.

Digital Promise National Center Launched to Advance Technologies to Transform Teaching and Learning

The White House and Secretary of Education Arne Duncan recently announced the launch of *Digital Promise*, a [new national center](#) created by Congress with bipartisan support to advance technologies to transform teaching and learning. Digital Promise will receive startup funds from the Department of Education as well as the Carnegie Corporation of New York and the William and Flora Hewlett Foundation. The center will be overseen by a board made up of prominent leaders in education and technology.

Digital Promise will work with educators and researchers, technology firms, and entrepreneurs on: 1) identifying breakthrough technologies by partnering with technology firms and researchers to map the R&D landscape and identify opportunities for similar breakthroughs in learning; 2) learning faster what is working and what is not by working with researchers and entrepreneurs to develop new approaches for rapidly evaluating new products; and 3) transforming the market for learning technologies by working with school districts to create demand that drives private sector investment in innovation. The intent is that Americans across all regions and backgrounds can benefit from them.

To learn more about the new center, please access the [Digital Promise Website](#). For additional information on the initiative, please access the White House [Fact Sheet](#).