UTAH SYSTEM OF
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January 15, 2014

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Report of the Technology Initiative Advisory Board to the Utah State Board of Regents

Issue

The 2001 Legislature approved SB61 *Enhancements to the State Systems of Public and Higher Education*. This legislation established an Engineering and Computer Science Initiative within the Utah System of Higher Education (USHE), with the goal to increase the number of students graduating from engineering, computer science, and related technology programs. The legislation created the Technology Initiative Advisory Board (TIAB), appointed by the Governor that makes an annual report to the Board of Regents. The attached document provides this year's report from the TIAB.

Background

Key highlights noted in the report include:

1. During the last 12 years, the Engineering and Computer Science Initiative has been successful in increasing the number of graduates in targeted areas.
2. Of all computer science and engineering degrees earned during FY13, approximately 36% were awarded to students who transferred credit from other USHE institutions. Each USHE institution contributed to this transfer impact.
3. During FY13, 1372 engineering degrees were awarded compared to 862 in 2000, and in computer science 741 degrees were awarded compared to 513 in 2000.
4. Since the initiative began, a total of 24,490 computer science and engineering degrees have been awarded.

Policy Issues

There are no policy issues associated with this report.

THE UNIVERSITY OF UTAH   UtahState UNIVERSITY   WEBER STATE UNIVERSITY   SUU SOUTHERN UTAH UNIVERSITY   SNOW COLLEGE   DSU DIXIE STATE UNIVERSITY   UVU UTAH VALLEY UNIVERSITY   Salt Lake Community College

<u>Commissioner's Recommendation</u>

<u>This report is for information to the Board of Regents. No action is required.</u>

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David L. Buhler
Commissioner of Higher Education

DLB/BKC
Attachment

The 2001 Legislature approved SB61 *Enhancements to the State Systems of Public and Higher Education,* sponsored by Senator Lyle Hillyard. This legislation established an Engineering and Computer Science Initiative within the Utah System of Higher Education with the intent to increase the number of students graduating from engineering, computer science, and related technology programs. To date, $11.5 million of on-going funding plus $10M of one-time funding have been appropriated to support this initiative. The following table gives a summary of the funding between FY02 and FY14.

Appropriated Funds

Engineering and Computer Science Initiative Funding History 2002-2014			
	Funds Appropriated		
Year	**Ongoing**	**One time**	**Scholarship[1]**
2001-02	1,000,000	2,500,000	500,000
2002-03	2,000,000	1,000,000	0
2003-04	500,000	0	50,000
2004-05	500,000	500,000	0
2005-06	1,500,000	500,000	0
2006-07	500,000	700,000	0
2007-08	3,000,000	2,000,000	0
2008-09	0	250,000	0
2009-10	0	2,000,000	0
2010-11	0	0	0
2011-12	0	0	0
2012-13	2,500,000	0	0
2013-14	0	0	0
Total	**11,500,000**	**9,450,000**	**550,000**

One measure of Initiative success is measured through the transfer of students from one institution to another as students complete degree requirements. Of all computer science and engineering degrees earned during FY13, approximately 36% were awarded to students who transferred credit from other USHE institutions. Each USHE institution contributed to this transfer impact. This data suggests that each USHE institution carries a larger role than ultimate degree completion by enabling students to earn credits that are part of their overall educational pathway. This is evidence that transfer policies within the USHE impact students positively and serve to meet key state objectives in enabling students to complete their education.

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[1] In 2001, SB61 established a loan forgiveness fund to assist students in obtaining degrees in engineering and computer science. In 2009, SB105 changed the loan forgiveness program to a scholarship program for the purpose of recruiting, retaining, and training engineering and computer science and related technology students. At that time scholarship funding was $39,200 annually. In FY13 an additional $300,000 of on-going scholarship funding was allocated by the Board of Regents from the FY13 $2,500,000 appropriation.

Based on assessment by the Technology Initiative Advisory Board, the industry oversight committee responsible for making Initiative funding recommendations to the Utah State Board of Regents, the Engineering Initiative has been one of the most successful legislative efforts of the past decade. With participation among industry, higher education, and the state, the Initiative has proven to be a model program with strong accountability and demonstrable results.

During FY13, 1372 engineering degrees were awarded compared to 862 in 2000, and in computer science 741 degrees were awarded compared to 513 in 2000. Over the length of the Initiative, there has been a consistent increase in overall degrees awarded in the targeted areas. Since the initiative began, a total of 24,490 computer science and engineering degrees have been awarded. The Initiative has resulted in a positive cumulative impact for the state. It is believed that a modest investment of state dollars has made a significant difference for Utah.

Key provisions of SB61 include:

1. Established a goal to triple the number of graduates from USHE institutions in engineering, computer science, and related technology.
2. Directed the Regents to establish rules providing the criteria for those fields of study that qualify as "related technology."
3. Provided supplemental funds for equipment purchases to improve the quality of instructional programs in engineering, computer science, and related technologies.
4. Established a student scholarship to encourage enrollment in programs included in the initiative.
5. Assisted USHE institutions to hire and retain qualified faculty to teach in initiative programs.
6. Increased program capacity by funding new and renovated capital facilities, and funding for new engineering and computer science programs.
7. Created a Technology Initiative Advisory Board to make recommendations to the Regents in its administration of the initiative. The advisory board is to include individuals appointed by the Governor from business and industry who have expertise in the areas of engineering, computer science, and related technologies.

Technology Initiative Advisory Committee Members

- John Sutherland (Chair)   Brigham Young University
- Susan Johnson (Co-Chair)   Futura Industries
- Richard Anderson   Hewlett Packard, Retired
- Reed Brown   Local Digital Insider
- Roland Christensen   Applied Composite Technology
- Ed Ekstrom   Quail Creek Capital
- Chuck Taylor   Metalcraft Technologies
- J. Howard VanBoerum   VanBoerum & Frank