

# Issue Brief – Engineering & Computer Science Initiative

NUMBER USHE-04

## SUMMARY

The Legislative Fiscal Analyst recommends funding for the fifth (of five) years for the Engineering and Computer Science Initiative in the amount of \$2.0 million in FY 2007. Of the total \$2.0 million, \$1.5 million is recommended as ongoing funding; \$500,000 is recommended as one-time funding.

## OBJECTIVE

The objective of the Engineering and Computer Science Initiative is to double the number of graduates in engineering and computer science disciplines by 2006 and triple that number by 2009.

## DISCUSSION AND ANALYSIS

In 2001, the Legislature passed S.B. 61 which established an Engineering and Computer Science Initiative, showing its recognition of the economic benefit that these graduates would be to the State. To advance the initiative, the Legislature has appropriated \$10.0 million to the system of higher education since its inception. An important component of the legislation requires USHE institutions to evaluate current program offerings and reallocate funds internally to leverage the state appropriated dollars to enhance the objective of this initiative. The following table demonstrates how the institutions have complied with the spirit and intent of this technology initiative:

<b>Engineering and Computer Science Initiative</b>					
	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>
State Appropriations:					
Ongoing	\$1,000,000	\$2,000,000	\$500,000	\$500,000	\$1,500,000
One-time	\$2,500,000	\$1,000,000	\$0	\$500,000	\$500,000
USHE Matching Funds					
University of Utah	\$513,000	\$816,000	\$649,100	\$207,000	\$680,000
Utah State University	\$308,800	\$696,000	\$100,000	\$113,000	\$475,000
Weber State University	\$235,900	\$200,000	\$47,600	\$35,000	\$75,000
Southern Utah University		\$74,600	\$50,000	\$30,000	\$30,000
Snow College				\$20,000	\$30,000
Dixie State College		\$50,000	\$35,000	\$20,000	\$30,000
College of Eastern Utah				\$20,000	\$30,000
Utah Valley State College		\$332,200	\$70,000	\$35,000	\$75,000
Salt Lake Community College			\$30,000	\$20,000	\$75,000
Total Matching	<u>\$1,057,700</u>	<u>\$2,168,800</u>	<u>\$981,700</u>	<u>\$500,000</u>	<u>\$1,500,000</u>
Total Funding	<u><b>\$4,557,700</b></u>	<u><b>\$5,168,800</b></u>	<u><b>\$1,481,700</b></u>	<u><b>\$1,500,000</b></u>	<u><b>\$3,500,000</b></u>

In its report to the Legislature, the Technology Initiative Advisory Board states that “Engineering graduates are finding employment locally in defense related companies, as well as biomedical design and manufacturing, refineries, construction, engineering consulting, and a variety of IT related companies. Retention rate particularly at the BS level remains in line with the state-wide average of 71%. At the University of Utah, retention at the BS level is closer to 79%. Starting salaries for Utah engineering graduates at the BS level ranges between \$45,000 and \$60,000 and up depending on the industry.”

The following table shows the comparison in the number and types of degrees granted in the base year (2000) and the most recent year (2005).

<b>Engineering and Computer Science Initiative</b>		
Degrees Awarded		
	<u>2000</u>	<u>2005</u>
Computer Science		
Associate	178	199
Bachelors	291	377
Masters	36	77
Doctorate	8	8
Subtotal	<u>513</u>	<u>661</u>
Engineering		
Associate	179	349
Bachelors	482	640
Masters	144	287
Doctorate	47	64
Subtotal	<u>852</u>	<u>1,340</u>
Total	<u><u>1,365</u></u>	<u><u>2,001</u></u>