

UTAH ENGINEERING INITIATIVE

As Utah's economy expands, shortages in the number of highly qualified engineers and computer scientists remain acute. To keep Utah at the top of the list as the "best state for business," we must continue to increase the local supply of highly qualified engineers and computer scientists.

Student interest in technical degree programs has filled the pipeline with capable students. USHE schools statewide need to increase capacity to keep up with student demand.

The Engineering Initiative is Utah's proven formula for expanding the technical workforce. In just two years, USHE degree output in engineering and computer science increased by 345 system-wide, a 12% increase which exceeded the 320 promised in the 2017 legislative request. Compared with the baseline year of 2000, computer science degrees statewide have increased by 203%, while engineering degrees increased by 101%.

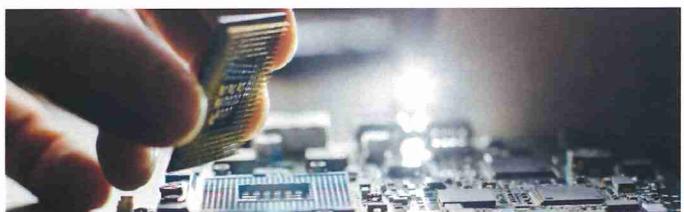
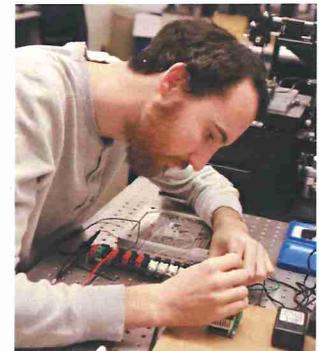
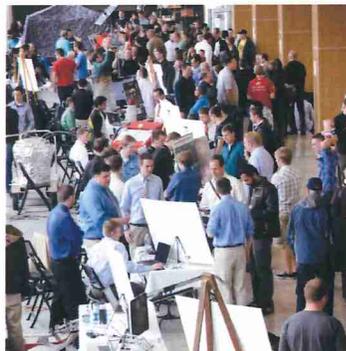
To date, the state has invested \$19M in ongoing funds and \$10.45M in one-time funds in the Engineering Initiative. Every ongoing dollar for faculty salaries has been matched by the institutions, amplifying the impact of the \$19M of ongoing funds that have been invested since 2001. Every school in the USHE system has benefited, and an independent board of business leaders (TIAB) annually monitors performance, and reports directly to the legislature.

With an appropriation in 2019 of \$5M in ongoing funds, we will add capacity to the state's engineering and CS programs to accommodate student demand and increase the size of the technical workforce. With these additional funds, we commit to adding 400 more engineering and computer science graduates per year to the statewide system.

With an appropriation of \$5M, we will add capacity by:

- Recruiting more faculty in high demand disciplines.
- Building capacity by creating more class sections and developing online alternatives.
- Boosting retention through academic advising and career counseling.
- Strengthening outreach to women and underrepresented minorities.

USHE presidents have expressed their support for the request and promise to match any new ongoing funds.



ENGINEERING INITIATIVE: 2019 FUNDING REQUEST

- **Employment in Utah's tech-related industries has risen to 135,000, representing 6,531 companies (*CompTIA 2018 Report*). This growth relies on a steady supply of engineering and computer science graduates.**
- **Targeted investments through the Engineering Initiative have resulted in more than double the output of engineering degrees and triple the output of computer science degrees.**
- **Since 2017, USHE degree output in engineering and computer science increased by 345 system-wide, a 12% increase which exceeded the 320 promised in the 2017 legislative request.**
- **Despite this increase, thousands of jobs remain unfilled. The tech industry's direct contribution to the Utah economy is an estimated \$14.9 billion, or 10.2% of the gross domestic product. Workforce development remains a major concern.**
- **The Higher Ed pipeline is full of students who want to pursue degrees in engineering and computer science. We need to increase capacity to educate these capable students. The 12 highest starting salaries for bachelor's degree graduates are all in engineering and computer science, with a median salary of \$67,000 and a high of \$79,000.**

With \$5M in new ongoing funds, we can add another 400 engineers and computer scientists each year to the skilled workforce.



THE ENGINEERING INITIATIVE IS A PRIORITY REQUEST FOR THESE UTAH COMPANIES:

ACT AEROSPACE

ADOBE

ARBITERSPORTS

ATLASRTX

AUTOLIV

AUTONOMOUS SOLUTIONS

BAE SYSTEMS

BECAUSE LEARNING

BIOUTAH

BOEING

BUSYBUSY

CABOSOFT

CAO GROUP

CHEVRON

CODECHANGERS

COZZENS CABINETS

DOMINION QUESTAR CORP

EXPERTVOICE

FATPIPE NETWORKS

FRANSON CIVIL ENGINEERS

GAF

GIRLSGODIGITAL

HUGHES GENERAL CONTRACTORS

IM FLASH

INFOWEST

INSIDESALES

IRH

IVANTI

JOB INDUSTRIAL SERVICES

L3 TECHNOLOGIES

LAYTON CONSTRUCTION

LUCID

MCM ENGINEERING II

MERIT MEDICAL

MICRO FOCUS

MICROSOFT

NICE INCONTACT

NORTHROP GRUMMAN

OKLAND CONSTRUCTION

PACKSIZE

PRINTERLOGIC

PROXIMAL SYSTEMS CORPORATION

RAM MANUFACTURING COMPANY

ROCKY MOUNTAIN POWER

ROSENBERG ASSOCIATES

SECURITY 101

SILICON SLOPES

STRYKER NEUROVASCULAR

SYBERJET AIRCRAFT

TRASK BRITT

US SYNTHETIC

UTAH STATE BAR - IP SECTION

UTAH TECHNOLOGY COUNCIL

WOMEN'S TECHNOLOGY COUNCIL

ZONOS

