STATE BOARD OF REGENTS MEETING
UTAH STATE UNIVERSITY, LOGAN, UTAH
ECCLES CONFERENCE CENTER (ECC)
SEPTEMBER 13, 2012

AGENDA

11:30 AM – 12:00 PM LUNCH (ECC 201-3)

12:00 – 12:15 PM **COMMITTEE OF THE WHOLE** (ECC 205-7)

1. Commissioner's Report
2. Administration of Oath of Office to Marlin K. Jensen

12:15 – 1:30 PM **RETREAT FOR REGENTS AND PRESIDENTS ONLY** (ECC 205-7)

1:30 – 1:45 PM BREAK

1:45 – 3:20 PM **COMMITTEE OF THE WHOLE Continued** (ECC 205-7)

3. USHE – Institutional State-Funded Capital Development Projects for 2013-14 **TAB A**
   State Funded
   - 1:45 – 1:55 Introductory Comments
   - 1:55 – 2:05 University of Utah
   - 2:05 – 2:25 Utah State University
   - 2:25 – 2:35 Weber State University
   - 2:35 – 2:45 Snow College
   - 2:45 – 2:55 Dixie State College
   - 2:55 – 3:05 Utah Valley University
   - 3:05 – 3:15 Salt Lake Community College
   - 3:15 – 3:20 Closing Comments

3:20 – 3:30 PM BREAK

3:30 – 4:30 PM **CAMPUS CONNECTIONS** (Ag Science Building Atrium)

4:45 – 6:15 PM CAPITAL PRIORITIES TASK FORCE MEETING (University Inn (UInn) Sonne Room 508)

6:30 PM DINNER (PERFORMANCE HALL ATRIUM)

STATE BOARD OF REGENTS MEETING
UTAH STATE UNIVERSITY, LOGAN, UTAH
TAGGART STUDENT CENTER (TSC)
SEPTEMBER 14, 2012

AGENDA

7:30 – 8:50 AM **BREAKFAST MEETING – STATE BOARD OF REGENTS, USU BOARD OF TRUSTEES, PRESIDENT ALBRECHT, COMMISSIONER BUHLER**
(Alumni House)

8:30 AM CONTINENTAL BREAKFAST (TSC East Ballroom)

9:00 – 10:00 AM **MEETINGS OF BOARD COMMITTEES**

PROGRAMS/PLANNING COMMITTEE
Regent France A. Davis, Chair
Location: TSC Center Colony Room 221

ACTION:
1. Snow College – Associate of Science in Nursing **TAB B**
2. Snow College – Associate of Applied Science, Certificate of Completion, and Certificate of Proficiency in Industrial Mechanics **TAB C**

CONSENT:
Please see the General Consent Calendar at TAB Q.

INFORMATION:
1. Utah Scholars Initiative Annual Report **TAB D**
2. StepUp to Higher Education Update and College Guide **TAB E**
3. UCAP Life Sciences Cluster Acceleration Strategy **TAB F**

FINANCE/FACILITIES COMMITTEE
Regent Jed H. Pitcher, Chair
Location: TSC Senate Chamber 336

ACTION:
1. University of Utah – Sale of Donated Residence in Milford, UT **TAB G**
2. Snow College – Request for Differential Tuition for Bachelor of Commercial Music Degree **TAB H**
3. Proposed Policy: R571-Delegation of Purchasing Authority **TAB I**
4. Dixie State College – Public/Private Housing Project **TAB J**
5. UHEAA - Approving Resolution, SBR Student Loan Backed Notes, Series 2012-1 **TAB K**

CONSENT:
1. Weber State University – Purchase of Residential Property Proximate to the Ogden Campus **TAB L**

INFORMATION:
1. University of Utah – Bond Sale for Dee Glen Smith Athletic Complex, Ambulatory Care Complex Parking Structure, and Ambulatory Care Complex Infrastructure **TAB M**
2. Utah State University – Facilities Master Plan Progress Report **TAB N**
3. Annual Report on Foreign Gifts and/or Donations **TAB O**

10:00 – 10:15 a.m. REFRESHMENT BREAK (TSC East Ballroom)

10:15 AM – 12:00 PM **COMMITTEE OF THE WHOLE** (TSC West Ballroom)

1. 2013-2014 USHE Budget Request **TAB P**
2. Reports of Board Committees
3. General Consent Calendar **TAB Q**
4. Utah State University – Technology Strategy **TAB R**
5. Resolution (Meghan Holbrook)

12:00 – 1:00 PM LUNCH (TSC East Ballroom)

1:00 – 1:30 PM **STATE OF THE UNIVERSITY – PRESIDENT ALBRECHT** (TSC West Ballroom)

1:30 – 1:40 PM BREAK

1:40 – 3:30 PM **COMMITTEE OF THE WHOLE Continued** (TSC West Ballroom)

6. USHE – Institutional Non-State Funded Capital Development Projects and Land Bank Requests for 2013-14 **TAB S**

   Non-state Funded
   - 1:40 – 1:50 Introductory Comments
   - 1:50 – 1:55 Southern Utah University
   - 1:55 – 2:10 University of Utah
   - 2:10 – 2:30 Utah State University
   - 2:30 – 2:40 Utah Valley University

   Land Bank Requests
   - 2:40 – 2:45 Southern Utah University
   - 2:45 – 2:50 Utah Valley University
   - 2:50 – 2:55 Dixie State University

7. Capital Facilities Prioritization and Approval **TAB T**

3:30 – 4:00 PM **EXECUTIVE SESSION (CLOSED MEETING – STATE BOARD OF REGENTS)**
IF NEEDED (TSC Center Colony Room 221)

Projected times for the various meetings are estimates only. The Board Chair retains the right to take action at any time. In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify ADA Coordinator, 60 South 400 West, Salt Lake City, UT 84180 (801-321-7124), at least three working days prior to the meeting. TDD # 801-321-7130.

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: USHE – Institutional State Funded Capital Development Projects for 2013-14

Background

Consistent with statutory mandate which assigns to the Regents the responsibility of conducting continuing studies and evaluations of the facilities, grounds, and buildings at the public higher education institutions of the state, the Regents review facilities needs each year for the purpose of assigning priorities to the most pressing and critical project requests. Once prioritized, this list is then submitted to the Office of the Governor, DFCM and the State Building Board, and the Legislature for funding consideration and approval.

The projects included in the request for 2013-14 funding are as follows:

- University of Utah – Crocker Science Center (George Thomas Building – Renovation, Addition, and Seismic Upgrade)
- Utah State University – Biological Sciences Building
- Utah State University- College of Eastern Utah –Central Instruction Building
- Weber State University – New Science Lab Building
- Southern Utah University – New Business Building
- Snow College – Science Building Addition & Renovation
- Dixie State College – Purchase of East Elementary School Property
- Utah Valley University – Classroom Building
- Salt Lake Community College – SAT Classroom and Learning Resource Space Expansion (Meadowbrook Campus)

Summaries of the requested projects are attached for your information. Following the Regents' review of the requested projects and campus presentations regarding the same, the Regents Capital Facilities Committee will – utilizing base project scoring in accordance with Board policy and provided by the Office of the Commissioner - recommend assignment of "Priority Points" and rankings to the full Board. The Board will then formally establish the relative priorities of the projects for submission to the State Building Board, the Governor, and Legislature for funding consideration.

Commissioner's Recommendation

The Commissioner recommends that the Regents become knowledgeable about the attached projects and prepare to deliberate the merits of each in the context of the highest and most pressing needs in USHE. Following deliberations, the Regents will be charged with acting upon the recommendations presented by the Regents Capital Facilities Committee.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

USHE 2013-14 CAPITAL DEVELOPMENT PROJECTS

UNIVERSITY OF UTAH – CROCKER SCIENCE CENTER (GEORGE THOMAS BUILDING RENOVATION, ADDITION, AND SEISMIC UPGRADE):

Project Cost Estimates **			
State Funds	Other Funds	Total Project Cost	O&M Funds
$30.0 M	$20.0 M	$50M	$647,532

Project Space - Gross Square Footage		
New	Renovated	Demolished
52,500	71,000	15,300

*** The University's request for this capital development cycle is only for approval to move forward with programming of this project; this programming to be funded with institutional funds.*

The renovated and expanded George Thomas Building will house the new math and science teaching initiative, an educational process that will require innovative thinking about teaching and research lab facilities design:

- Modern, interdisciplinary teaching laboratories and classrooms for the Center for Science and Math Education.
- An incubator for science-based translational research, in which university faculty will collaborate with industry partners on pilot projects with direct benefits for the community.
- The Center for Cell and Genome Science, an interdisciplinary research center bringing together world-renowned physicists, biologists, and other scientists.

This project will revitalize a building that is listed on the National Historic Register and is located on the UofU Presidents Circle. The building most recently housed the Utah Museum of Natural History.

The existing George Thomas Building has serious seismic and structural deficiencies, and a seismic retrofit along with demolition of the south portion of the building that was constructed as a library stacks area will be part of the project. Several areas may require asbestos abatement. Plumbing, mechanical, & electrical systems will need to be replaced. The building shell will be made more energy efficient with historically appropriate windows.

The University will provide $20 million of funding from donations and other institutional funds as partial funding for this project.

UTAH STATE UNIVERSITY – BIOLOGICAL SCIENCES BUILDING:

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$60.0 M	$0	$60.0 M	$1,237,723

Project Space - Gross Square Footage		
New	Renovated	Eliminated
103,000	139,379	0

This project includes a $45 million new building on the site of the recently demolished old Ag Sciences Building. It also includes a $15 million renovation of the Biology and Natural Resources (BNR) Building,

consisting of mechanical, structural and energy upgrades throughout and remodeling of space for the Biology Department wing.

The new building will provide critical replacement, expansion, and consolidation space for the Biology Department, focusing on new state-of-the-art teaching and research laboratories. It will be attached to BNR with a bridge connection, where existing spaces will be remodeled to serve several specialized functions related to specific research and teaching resources. Remodeled space within BNR will house the Intermountain Herbarium, USU Entomological Collection, National Pollinator Laboratory (the "Bee Lab," a federal facility), USU vertebrate teaching collections, Utah Plant Pest Diagnostic Laboratory (an Extension unit), departmental vivarium (animal care facility), arthropod vector laboratory, and human anatomy teaching laboratory (cadaver lab). Although all of these resources remain critically important to the mission of the Department of Biology, each requires substantial square footage for current holdings and future growth, and they can continue to serve their core functions with appropriate renovation of BNR. A few additional teaching labs will also be renovated in BNR, primarily for use with collection-based courses and for expansion of our rapidly growing undergraduate research program.

This project will provide new centrally scheduled classroom space, available to all academic units on campus, including 3 new lecture halls, 3 standard mid-sized classrooms, and several seminar teaching rooms. A small science library, research display space, and student study space are also new programmatic elements needed for this project. The BNR does not currently have any study or collaboration space available for students. These functions may be housed in the new building or as remodeled space in the BNR, as determined in programming.

UTAH STATE UNIVERSITY: CEU – CENTRAL INSTRUCTION BUILDING

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$20.0 M	$0	$20.0 M	$249,533

Project Space - Gross Square Footage		
New	Renovated	Demolished
45,600	34,800	33,286

This project will replace the SAC and Music Buildings with a general instructional building located adjacent and connected to the historic Geary Theatre. It will provide new instructional space for communication, criminal justice, music, art, and theatre programs. As a part of the project, the Geary Theatre will be seismically stabilized. The College plans to remodel the interior space of the Geary Theatre using future cycles of capital improvement.

The College has grown to the point that several aging facilities have become inadequate, but has not evolved to a point justifying separate and single-program facilities. This project is a large instructional facility that serves multiple academic programs. The project will bring together criminal justice, communication, theatre, music, and visual arts into one facility on campus, allowing the College to eliminate inadequate and geographically separate facilities, create efficiencies of operation and campus integration, and modernize instructional services.

Additionally, by being located next to the Geary Theatre, the project will allow for needed expansion and remodeling of the Geary Theatre, bringing fine arts programs together for better coordination and resource

leveraging. By removing art programs from the College's CTE facility, the project will allow the nursing program to expand and modernize operations. By razing and replacing the existing SAC and Music Buildings, both of which have multiple structural, mechanical, and infrastructure problems; and by seismically renovating the Geary Theatre, the new project will eliminate and correct problems that DFCM has identified as among the "most dangerous in the state." The larger footprint also will be more cost-effective than building smaller projects.

WEBER STATE UNIVERSITY – NEW SCIENCE LAB BUILDING:

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$60.9M	$5.0	$65.9M	$502,096

Project Space - Gross Square Footage		
New	Renovated	Demolished
200,000	0	168,903

This Project consists of razing three existing buildings, including the existing Science Lab Building, and constructing a new Science Lab Building. The structures to be razed are:

- Existing Science Lab Building – This is a six-story laboratory building with a seven-story northern mezzanine where faculty offices are located. It is laden with asbestos making it difficult to safely provide needed maintenance. It has not been upgraded since its construction in 1969 and is very energy inefficient. Lighting and ventilation are inadequate and storage space is woefully inadequate and inconvenient for use by the labs. The laboratories are small and inefficient and there is a lack of student study space which results in students crowding into hallways which compromises egress for fire safety. The building is not ADA compliant and has been identified as a high seismic risk because of its concrete beam and column construction, close proximity to a known fault, and lack of rigid floor plates. In addition, because of the many advances in science over the past 40 years and the new equipment items now used in laboratory analysis, the building is inadequate in terms of size, layout, configuration, electric power, and ventilation.
- Buildings 3 & 4 – These buildings were constructed in 1954 when then Weber State College was moved from downtown Ogden to the Current campus. They are unreinforced masonry facilities and are very obsolete and inefficient, having single pane glazing in the windows, very little insulation, and badly corroded water pipes. They are not ADA compliant and the classrooms are improperly size and lack multi-media capabilities and computer labs needed for educational presentations and program pedagogy. The programs and functions currently using these buildings will be relocated to other facilities.

The proposed new facility will be a modern science laboratory and classroom building that will meet the needs of science programs into the future. It will include adequately sized laboratories with necessary safety features, with sufficient storage and study space for the programs of Zoology, Botany, Mathematics, Chemistry, Geosciences, Microbiology, and Physics. It will increase the science lab space by about 35 percent and will also contain faculty and staff offices, classrooms, storage and equipment space, an expanded greenhouse, and student study areas.

$5 million of the capital funding will come from two donors, each of which has pledged $2.5 million for the project contingent upon the approval of state funding for the project.

SOUTHERN UTAH UNIVERSITY – NEW BUSINESS BUILDING:

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$9.0M	$3.0	$12.0M	$257,830

Project Space - Gross Square Footage		
New	Renovated	Demolished
42,000	0	10,169

Space for the School of Business has not been increased since 1980 despite essentially having doubled in enrollment and faculty over that time period. In addition, the role assignment was expanded to include a Masters in Business Administration and a Masters of Accounting. The lack of seminar style classrooms, student breakout rooms, and service learning space is not conducive to the curriculum of the undergraduate and graduate degree programs. The new building will provide classrooms, seminar rooms, advanced business computing labs, graduate assistant work-study areas, break-out/study rooms, an academic advising suite, additional faculty offices and ROTC classrooms and offices.

$3 million to assist with the capital funding needs has been committed by a private donor.

The existing Dixie Leavitt Business Building that houses the School of Business will be repurposed and used as surge space for the university. In addition, the Old Facilities Building and Automotive Shop will be razed to create space for essential campus parking needs.

SNOW COLLEGE – SCIENCE BUILDING RENOVATION/ADDITION:

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$11.8M	$0	$11.8M	$108,000

Project Space - Gross Square Footage		
New	Renovated	Demolished
12,000	57,000	0

The current building was constructed in 1972 and has many safety (including asbestos) and code compliance issues. There is also a large crack on one corner that runs the full height of the building, which while unsightly, would appear to be correctable without demolishing and rebuilding all or part of the building (this would require validation by a new structural analysis since the last structural analysis of the building was done more than fifteen years ago). There are numerous ADA compliance issues that need to be addressed.

The teaching laboratories are functionally obsolete and do not meet current standards for chemistry and biology education. There are also inherent problems with the original lines required for certain chemicals, inadequate ventilation and air movement, et al. A previous request for this project anticipated demolition of the existing facility and replacing it with a new building. DFCM has since determined that the existing problems can be corrected and the space updated at a significantly reduced cost by remodeling the current building with a small addition.

DIXIE STATE COLLEGE – PURCHASE OF THE EAST ELEMENTARY SCHOOL PROPERTY:

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$1.5M	$0	$1.5M	$370,356

Project Space - Gross Square Footage		
New	Renovated	Demolished
52,908	0	0

This request is for the purchase of an existing building and the 7.27 acre property. The property is a stand-alone site that is contiguous to the existing main campus which will facilitate connecting the building to the campus telephone and internet services. The original East Elementary building was constructed in 1955. Since that time, it has been added to several times and upgrades have been made. The Washington County School District has taken care of the building and made needed repairs as they arose. Asbestos abatement has been done to major mechanical areas and all state and federal guidelines have been followed.

It is anticipated that the following programs with the associated classrooms and office space will be among those housed in this newly acquired building:

Department of Education
Physical Education, Health and Recreation
Family Consumer Science
Nutrition and Food Science
Early Childhood Education
Dixie State College Preschool

UTAH VALLEY UNIVERSITY – CLASSROOM BUILDING:

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$53.2 M	$0	$53.2M	$2,025,000

Project Space - Gross Square Footage		
New	Renovated	Demolished
250,000	0	0

The proposed facility was funded for design by the 2012 legislature and is currently in design. It will consist of about 250,000 square feet and will include 60 new classrooms in varying sizes of from 40 to 150 seats. It will also contain about 150 new offices for faculty and staff; approximately 20 study rooms for the use of students; and various academic departments. The facility will also have a 1,000 seat auditorium for large lecture classes and performances. The design of the building will consistent with the overall master plan of the campus. It will tie into the existing central plant HVAC system of the campus.

This facility is vitally needed to enable UVU to return to an acceptable level of square feet per FTE student and to address the burgeoning enrollment of the institution which is projected to increase by some 6,000 FTE over the next 5 years. It is critically needed in order for UVU to continue its efforts to fulfill its mission and respond to its growth role as outlined in the HigherEdUtah2020, 2010 Report.

This issue was identified as the number 1 concern of the 2010 Northwest Commission of Colleges and Universities evaluation team.

SALT LAKE COMMUNITY COLLEGE: SCHOOL OF APPLIED TECHNOLOGY (SAT) CLASSROOM AND LEARNING RESOURCE SPACE EXPANSION – MEADOWBROOK CAMPUS:

Project Cost Estimates			
State Funds	Other Funds	Total Project Cost	O&M Funds
$15.0 M	$0	$15.0 M	$329,901

Project Space - Gross Square Footage		
New	Renovated	Demolished
60,000	0	26,954

The new proposed 60,000 square foot state-of-the-art learning facility will be built east of the existing building and adjacent to the Meadowbrook TRAX Station on 2+ acres of ground that is currently owned by the College. The building will house two replacement classrooms and nine additional classrooms, three large replacement teaching labs and one additional teaching lab. The building will also provide study space, 20 office spaces, two conference rooms and student support space. Once the new building is built, the existing building will be demolished and replaced with additional green space and needed parking.

The existing building is seismically and operationally unsafe. It has inadequate mechanical systems that cannot be replaced for equal or less than the cost to build the new facility. The new facility will also provide added program efficiency by consolidating the School of Applied Technology programs into one location as well as a broadening of Career and Technical Education access. It will also accommodate increased enrollment demand in the School of Applied Technology programs.

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds℠

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.utahsbr.edu

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Snow College – Associate of Science in Nursing

Issue

Snow College requests approval to offer an Associate of Science Degree in Nursing, effective Fall Semester 2013. This program has been approved by the institutional Board of Trustees on April 13, 2012. The Program Review Committee reviewed the proposal on August 15, 2012 and approved the proposal to move forward to the full board.

Background

The Associate of Science in Nursing (ASN) program is designed to prepare students for entry-level clinical practice as registered nurses (RN). Graduates from the ASN program will be eligible for a registered nurse licensure upon successful completion of the National Council of State Boards of Nursing Licensure Examination (NCLEX-RN). The Associate of Science in Nursing at Snow College will provide the means and opportunity for working practical nurses and first year nursing school graduates to expand skill bases and increase earning potential while advancing their careers in the healthcare system.

Although the demand for nurses varies by region in the state, the Department of Workforce Services projects that the demand for Registered Nurses will grow four percent by 2018. The number of students interested in nursing at Snow College has increased, as manifested by the number of Certified Nurses' Assistants (CNA) and the number of declared nursing majors.

Policy Issues

Snow College has been engaged in a successful cooperative ASN program with Weber State University for many years. Experienced faculty members working with the WSU cooperative program at Snow College are prepared to continue teaching in Snow College's own program. Weber State University is supportive of the request to establish the program under the direction of Snow College. Other institutions within the Utah System of Higher Education have reviewed the proposal, given input, and are supportive of it moving forward.

Commissioner's Recommendation

The Commissioner recommends the Regents approve the Associate of Science in Nursing (ASN) program at Snow College, effective Fall Semester 2013.

David L. Buhler
Commissioner of Higher Education

WAS/GSW
Attachment

Programs and Planning Committee

Action Item

Request to Offer an Associate of Science in Nursing

Snow College

Prepared for:
David L. Buhler
by
Gary S. Wixom

September 5, 2012

Program Description
Snow College
Associate of Science in Nursing (ASN)
04/04/2012

Section I: The Request

Snow College requests approval to offer the Associate of Science in Nursing Degree, effective Fall 2013. This program has been approved by the institutional Board of Trustees on April 13, 2012.

Section II: Program Description

Complete Program Description

The Associate of Science in Nursing (ASN) program is designed to prepare students for entry-level clinical practice as registered nurses. The program is structured for students to receive an Associate of Science Degree (85 credits).

Graduates from the ASN program are eligible for a registered nurse licensure upon successful completion of the National Council of State Boards of Nursing licensure exam (NCLEX-RN). The Associate of Science in Nursing at Snow College will provide the means and opportunity for working practical nurses and first year nursing school graduates to advance skills bases and earning potential while advancing their careers in the health care system.

The program's mission is to inspire an ongoing love of learning while preparing students to be competent, compassionate, and culturally-sensitive, entry-level nursing graduates whose professional practices encompass legal and ethical decision-making while promoting excellence in the health communities they serve.

Professional nursing requires a performance of duties with substantially specialized nursing skills and knowledge, critical judgment, and critical thinking based on applied scientific principles. The ASN will prepare students to practice holistic nursing by incorporating these biophysical, psychosocial, spiritual, cultural, and wellness concepts.

The ASN program is anticipating approval by the Utah State Board of Nursing and accreditation by the National League for Nursing Accrediting Commission, Inc. (NLNAC).[1]

A student meeting all educational and institutional requirements for an Associate in Science Degree in Nursing from Snow College is eligible to have his/her name submitted to the Utah State Board of Nursing for consideration as a candidate for the National Council Licensure Examination for the Registered Nurse (NCLEX-RN). The Utah State Board of Nursing is the state agency authorized to determine if the applicant qualifies to take the National Council Licensure Examination (NCLEX-RN) for licensure as a Registered Nurse in Utah.

The curriculum follows the format of a typical, specialized ASN degree with an emphasis on nursing in specific areas and provides students with the curriculum content as required by the Utah State Board of

[1] www.nlnac.org

Nursing and the NLNAC. This program prepares students for success on the NCLEX-RN. The program courses allow for transfer if, or when, the student decides to achieve a higher degree such as a Bachelor (BSN) or Master of Science (MSN) in Nursing. The option of Snow offering an Associate of Applied Science degree was considered, however, that option leaves students unprepared for transfer. Nursing as a profession is looking more toward the expectation of a BSN. The ASN ensures all graduates are prepared to transfer, whether or not they choose to do so.

A detailed explanation of the curriculum is provided in Section VI, with a brief overview as follows:

Course Category	Credit Hours
Prerequisites and practical nursing courses	45
Additional prerequisite and registered nursing courses	27
Associate of Science general education courses	13
Total	**85**

Purpose of Degree

The purpose of the proposed ASN is to provide an opportunity for to complete the educational requirements for the ASN while in residence at Snow College. This degree will complement the existing accredited nursing program (LPN) and meet specific educational needs in the Snow College/Six-County service district as well as the greater metro Utah area. Because many of the students live in, and plan to work in, rural areas, their clinical experiences will take place in these locations, emphasizing the unique characteristics of nursing in the Snow College service area. Students will receive specific instruction and clinical experiences in larger and acute care settings as well, preparing them with an understanding of nursing roles, responsibilities and skills required to work in both rural and metro areas.

The Associates of Science in Nursing will prepare students to meet Utah State Board of Nursing requirements, the National League for Nursing Accrediting Commission, Inc. (NLNAC) and take the National Council of State Boards of Nursing licensure Examination (NCLEX-RN) with success.

The degree will provide entry-level registered nurses who may go directly into the workforce or choose to continue to study towards a higher nursing degree. The program will aid both groups in their chosen path as they will have met the NCLEX-RN requirements. For transfer students, articulation agreements will allow for a seamless path from Snow College to most four-year institutions. Highly motivated graduates may choose employment and pursuit of a higher education at the same time. Employers are increasingly supportive of nurses obtaining higher degrees. Also, transfer institutions are offering more courses conducive to working students, particularly nurses.

Institutional Readiness

Snow College feels it is in a position to offer this new degree based on a number of reasons. First, the Allied Health Department, specifically the nursing department, in the Career and Technical Division has a proven track record of educating students to be successful at passing state board exams and finding employment in this field of study. Second, classrooms, skills labs, and high fidelity simulation labs are ready for program use. Third, Snow College has been a successful cooperative ASN program with Weber State University for many years. Experienced faculty members working with the Snow-WSU program are prepared to continue teaching in Snow College's own program. Fourth, the successes and revenue generated by this program can be maintained at Snow College. Snow College has entered into extensive discussions with local health care organizations to improve relationships and secure clinical internships and

job opportunities for students. Fifth, the administration of Snow College is seeking out and implementing programs that improve the education of our service district in order to provide prepared nurses to fill open positions locally while allowing graduates to fill needs in other areas. In short, this program will build on the strengths that Snow already has, utilize new resources to help students meet personal and professional goals, and is supported on all administrative levels.

Faculty

The majority of courses required for this degree are currently taught by Snow College faculty members as part of the Weber State University (WSU) extension program. Anticipated enhancements of the program include scheduling additional sections of some classes, adding required, second-year nursing courses, and securing clinical sites for Snow College that were previously arranged through WSU. The program will require one additional full-time faculty, and additional adjunct faculty as needed to meet clinical instruction needs. Another full-time faculty will be added between years three and four. Some shifting of the workload to accommodate changes in new and current courses amongst the current faculty is anticipated.

Faculty Category	Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Faculty Headcount at Full Program Implementation
With Master's Degrees			
Full-time Tenured	1	1	8
Full-time Non-Tenured	6		
Part-time Tenured			
Part-time Non-Tenured	1	1	2
Total Headcount Faculty	8	2	10
Total Department Faculty FTE (As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")	7.5	1	9

Staff

It is anticipated that the current staff would need to increase by two part-time facilitators to assist with the remote site. The present secretaries in Richfield and Ephraim could absorb any extra workload. It is possible that the increased need of part-time faculty could be augmented with a staff person specifically assigned to the High Fidelity Simulation component of the curriculum.

Library and Information Resources

Nursing and science materials are currently housed in the state-of-the-art Huntsman Library on the Snow College Ephraim Campus and in the Snow College Richfield Library. The library staff at both campuses solicits departments and divisions continually to improve and update collections. The departments are required to inform the library staff of resource needs or changes for new courses or courses with significant modification. Currently, these libraries house a vast volume of holdings in regard to science and nursing. They also provide online access to numerous publications and resources that are available to students. They also participate extensively in interlibrary loans. These resources ensure that the needed materials will be available and accessible to students in the new Associate of Science in Nursing program.

Admission Requirements
Once students are admitted to Snow College, prospective nursing program students must meet the requirements as outlined in the application including: completion of an accredited practical nursing program, a current unrestricted LPN license in the state of Utah, nursing course GPA 3.0 or higher, cumulative GPA of 2.5 or higher, completion of all prerequisite courses with a "C" grade or higher, a resume, and two letters of reference.

Applications will be scored on a point system; students with the highest number of points will be accepted. Upon acceptance into the program, students must complete a physical examination by a primary care provider; provide proof of current immunizations including Tdap, MMR, varicella or positive antibody titer, hepatitis B, negative TB test or chest x-ray, and annual flu shot (serial immunizations may be in progress if not complete). Students must have a current American Heart Association BLS for Health Care Providers Certification; pass a drug screen and a background check.

Student Advisement
Student advisement will be threefold. First, interested students meet with Snow College student advisors for career counseling and recommended class scheduling. The advisors will provide incoming students with all information relating to the nursing program and recommend a class schedule covering all general and elective courses based on individual needs. Second, each member of the nursing faculty, including the program director, will be available to advise/direct students to program offerings and options that support them in reaching their goals. Third, faculty advisors will counsel with students on marketability and career opportunities as students complete the program.

Justification for Graduation Standards and Number of Credits
The program as outlined requires 85 credits. This meets the Utah System of Higher Education policy R401 section 4.1.4., which states the required number of credits for Specialized Associate Degree Programs is between 68 and 85. AAS nursing degrees generally have eight to fifteen fewer credits than ASN degrees; fewer GE credits represent general education courses that have been omitted. This program requires students to take general education courses which meet the science-based nursing studies and GE requirements of the specialized AS degrees. This program is similar to other educational programs offering a complete Associate of Science in Nursing as compared to programs offering an Associate of Applied Science in Nursing (AAS). It is intentionally designed to be on the high end of the credit requirements, allowing students to meet all AS requirements including specialized nursing courses, easing the process for transfer students working on a Bachelor's or higher degree.

External Review and Accreditation
In compliance with the Utah State Board of Nursing requirements, this program will be reviewed and accredited through the National League for Nursing Accrediting Commission Inc. (NLNAC). The program is pursuing accreditation with the NLNAC, and recognition from the Utah State Board of Nursing. The program will also comply with other accrediting organizations associated with Snow College.

The Associate of Science in Nursing Program will have an advisory board made up of five to six members from local health care organizations or other appropriate areas. Most of these organizations have submitted letters which are available upon request. This advisory committee is already functioning in conjunction with the other nursing programs currently offered at Snow College.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students:
The Associate of Science in Nursing Program is being developed to accommodate initially up to thirty students depending on qualified applicants. There is a long-term plan of merging the LPN and RN programs to create a single licensed nursing program with forty graduates annually. Note: Due to the changing demand for LPNs, most students pursue an RN. The projected date for the merger is Spring 2017 when the current NLNAC accreditation expires. At that time, the plan is to renew the accreditation for the RN program, including an option for the students to take the LPN NCLEX examination between the first and second year of the nursing program. Thus, there will no longer be separate LPN and RN programs: however, the option to enter and exit in the middle is available. A detailed description of enrollments is provided in Section Four as well as enrollment projections provided in the table below.

Data Category	Current – Prior to New Program Implementation	Projected Year 1	Projected Year 2	Projected Year 5
Data for Proposed Program				
Number of Graduates **in Proposed Program**	25 WSU	30	30	40
Total # of Declared Majors **in Proposed Program**	25 WSU	30	30	40
Departmental Data – For All Programs Within the Department				
Total Department Faculty FTE (as reported in Faculty table above)	8	9	9	10
Total Department Student FTE (Based on Fall Third Week)	56	78	78	85
Student FTE per Faculty FTE (ratio of Total Department Faculty FTE and Total Department Student FTE above)	7	9	9	8.5
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: Provide ratio here: 10:1				

Section III: Need

Program Needs
The number of students interested in nursing at Snow College has steadily increased as manifested by the number of declared nursing majors and the number of Certified Nurses' Assistants (CNA) completing the course. In 2009, there were 168 CNAs, in 2010 there were 206, and 2011 had 222 students. Most of these intend to continue their nursing education and become registered nurses. Nursing as a declared major has increased at Snow College. These students are compelled to transfer since there is no registered nursing program offered by the college.

The cooperative program offered with Weber State University (WSU) at Snow College began due to a steady student demand for a registered nursing program. The program was officially offered when there was sufficient student interest at the discretion of the Nursing Department at WSU. Each year the benchmark for student interest was met, and a cooperative program was established. This WSU cooperative program will discontinue once the Snow College ASN obtains approval. With Snow College having this degree, nursing majors have the option of staying and meeting all requirements. No other

opportunities exist in this service area for residents to attend a nursing program like this. Area health care facilities prefer nurses educated locally with an extensive understanding of the role of the rural nurse.

Labor Market Demand

A study by the Department of Health and Human Services predicts the demand for RNs will grow at a rate of 1.7 percent annually while the Department of Labor's Bureau of Labor Statistics predict a 2.3 percent annual growth demand. The U.S. Bureau of Labor Statistics (BLS) states,

> Overall job opportunities for registered nurses are expected to be excellent but may vary by employment and geographic setting... Employment of RNs is expected to grow much faster than the average and, because the occupation is very large, 581,500 new jobs will result, ranking it among the largest number of new jobs for any occupation. Additionally, hundreds of thousands of job openings will result from the need to replace experienced nurses who leave the occupation.

Nationally, the three million jobs that constitute the vast majority of nursing positions are registered nurses. An expansion of this market is expected as positions open up due to older nurses retiring, the population of elderly patients growing, the number and size of medical facilities increasing, and continuing research establishes new medical fields.

The average age of the currently-employed RN pool increases annually. Three factors contribute to this: First, a decline in number of nursing school graduates; second, a higher average-age of recent graduating classes; third, the aging of the existing RN pool of due to the number of nurses approaching retirement age. Employment in long-term care facilities and home health care is growing based on current trends in life expectancy, an aging population, and the demands made on health care personnel and facilities. Increasing numbers of elderly patients will significantly affect available space and attention in long-term care facilities and/or supervised home health care visits.

Financial stresses on hospitals are forcing them to discharge patients as soon as possible, increasing referrals and admissions to nursing and residential care facilities and on home health care. Long-term care facilities are adding separate units dedicated to stroke and head-injury patients and Alzheimer's victims with multifaceted rehabilitation requirements and specialized treatment plans. Home health care is expecting increases in a growing number of clients with functional disabilities, consumer preferences for homecare, and technological advances that make it possible to provide increasingly complex treatment and procedures in home settings.

Rapid growth is expected in outpatient facilities providing services like same-day surgery, rehabilitation, and chemotherapy. An increased volume of sophisticated procedures, once performed only in hospitals, are being performed in physicians' offices and in outpatient care centers such as freestanding ambulatory surgical and emergency centers. Accordingly, the highest employment growth is expected in these areas. As health care in general expands, market demands in all of the above situations will impact the need for licensed registered nurses.

Credible statistics are rare for the state of Utah and particularly South Central Utah. The local health care institutions made it known, via their representatives on the Nursing Program Advisory Committee, job openings exist at a rate somewhat slower than national averages. However, the demographics of the majority of Utah RNs place them near retirement pending economic recovery. A Utah newspaper article

mentions this situation. "The American Association of Colleges of Nursing, the American Nurses Association, the American Organization of Nurse Executives and the National League for Nursing recently issued a statement expressing their concern." Diminishing the pipeline of future nurses may put the health of many Americans at risk, particularly those from rural and underserved communities, and leave our health care delivery system unprepared to meet the demand for essential nursing services'".[2]

To attract and retain qualified nurses, many hospitals throughout the country offer signing bonuses, family-friendly work schedules, or subsidized training. Although faster employment growth is projected in physicians' offices and outpatient care centers, RNs may face greater competition for these positions because they generally offer regular working hours and more comfortable working environments.
In the July/August 2009, Health Affairs, Dr. Peter Buerhaus and co-authors found that despite the current easing of the nursing shortage due to the recession, the U.S. nursing shortage is projected to grow to 260,000 registered nurses by 2025. A shortage of this magnitude would be twice as large as any nursing shortage experienced in this country since the mid-1960s. The American Association of Colleges of Nursing lists several references supporting an existing shortage. One such reference is "In June 2011, Wanted Analytics reported that employers and staffing agencies posted more than 121,000 new job ads for Registered Nurses in May, up 46% from May 2010. About ten percent of that growth, or 12,700, were ads placed for positions at general and surgical hospitals, where annual turnover rates for RNs average fourteen percent according to a recent KPMG survey."[2]

Student Demand
According to the U.S. Bureau of Labor Statistics (BLS), about 2,500 PNs were licensed in Utah in 2010 compared to 18,230 RNs. A report by the BLS finds that the demand for RNs will grow 22 percent by 2018. The BLS finds that RNs in Utah make about $20,000 more per year than LPNs. In addition to having a higher salary, becoming an RN leads to more career opportunities.

The number of students interested in nursing at Snow College has steadily increased as manifested by the number of Certified Nurses' Assistants (CNA) and the number of declared nursing majors. In 2009, 168 CNAs completed the program, in 2010 there were 206, and in 2011, 222 students completing the course. Nursing as a declared major has increased at Snow College from 180 students in 2009 to 255 in 2010 (statistics for 2011 are unavailable at this time). Many of these students, planning on a RN or higher, transfer out of Snow College because students advancing through other college programs are accepted into their own RN program more readily than a LPN trying to transfer. A Registered Nurse Program at Snow College is in great student demand and will attract students wanting to stay in the area as well as currently employed PNs who may continue working while completing an associate degree. Having a RN program in the Snow College service area means interested PNs may continue to be employed in their chosen profession while working toward an associate degree in nursing, an option that helps alleviate the financial stresses placed on today's students.

Similar Programs
Regionally, a program designed specifically for students to complete an Associate Degree in Nursing that provides the classroom time, the faculty-to-student ratio, or comparable clinical instruction and exposure does not exist. The WSU cooperative is currently preparing nursing students for work in the Snow College service area. This arrangement will cease, and the proposed program will replace it upon approval.

---

[2] http://www.standard.net/topics/economy/2010/11/15/slow-job-market-nurses-expected-rebound

Other USHE schools offering LPN to ASN-RN programs are Salt Lake Community College, Weber State University, and Utah State University - Eastern. Schools offering this type of program *not* part of the USHE are: Stevens Henager College (Layton), Provo College, Broadview University. These are blended or online, and have lower success rates, less faculty and clinical exposure, and graduates are less desirable for employers.

Collaboration with and Impact on Other USHE Institutions

Students will be encouraged to continue with their nursing education by earning a Bachelor's degree or higher at other institutions. The Snow College Nursing Program currently has letters of support from other USHE institutions and is in the process of securing additional support. This program, as designed, will allow direct transfer to Weber State University and Southern Utah University. WSU and SUU have indicated they will accept the proposed ASN degree and articulating students will complete the remaining courses for a BSN in three semesters. Three semesters for the BSN added to the six needed for the ASN is comparable to other programs. Completion is reached in four and one half calendar years. Other USHE institutions that closely match and would allow for transfer are Dixie State College and Utah Valley University.

Most other institutions offering a BSN, not part of the USHE, accept an ASN from an accredited program. Some of these offer programs that may be completed in as little as six months.

Organizations supporting the move feel it will benefit their programs to accept successful, transfer students. We expect little impact on other USHE programs, as they differ in curriculum, delivery, and mission.

Benefits

Snow College's cooperative RN program has been very successful. Students attending Snow/WSU cooperative program have succeeded in achieving similar GPAs and attained similar NCLEX-RN first-time pass rates when compared to the other WSU campuses. Students report high satisfaction in the program, including nursing courses and clinical experiences. Most nursing-major students intend on reaching the level of Registered Nurse. Snow College could specifically recruit students to this major and degree program.

Currently, WSU operates and regulates the Snow-WSU cooperative. Graduates from the Snow College ASN program would have the values and standards that reflect the mission of Snow College. This arrangement will dissolve upon the creation of the Snow College ASN program. All credit of successes and funds resulting from the program would go to Snow College instead of other institutions.
Local healthcare organizations and facilities have a vested interest in the program, and understand the level of education and preparation for employment, and prefer graduates from this program as they have likely interacted with the students while completing clinical instructions.

Consistency with Institutional Mission

The Snow College Mission states: "Snow College continues a tradition of excellence, encourages a culture of innovation, and cultivates an atmosphere of engagement to advance students in the achievement of their educational goals." The ASN program, a working example of this mission, is designed to reflect how the mission supports students in the Allied Health Department's nursing program. The program compliments two strong areas of Snow College excellence: the Division of Career and Technical Education (CTE) and the Sciences.

Tradition of Excellence
The Allied Health Department's nursing program started as a course of studies offered by the Division of Career and Technical Education (CTE) at the Sevier Valley Applied Technology Center (SVATC) for the purpose of providing students with the skills and knowledge needed for a nursing career. Through decades of changes to meet academic and market demands, the nursing program has stepped up to provide educational opportunities that met community demands. The ASN plans to remain a solid and successful part of the CTE at Snow College as an excellent program known for high standards and superior graduates.

Culture of Innovation
Nursing faces constant changes. This innovative program will focus on the unique skills and characteristic changes a registered nurse working in rural Utah faces. It is an integrated, educational approach that balances positive aspects from the classroom theory with clinical practical application and utilization of patient care skills. Students will experience a variety of clinical settings and subspecialties to provide them with opportunities to explore the diverse options of nursing.

Additionally, this program will provide students with the ability to learn about today's nursing practice while encouraging them to continue educational advancement throughout their careers.

Atmosphere of Engagement
The Allied Health Department and faculty are expanding available opportunities for nursing students by creating a learning environment where students can advance using new technological teaching methods such as high fidelity simulation and by participating in clinical and group activities integrated with current nursing professionals. The program stresses an atmosphere of engagement by providing clinical exposure to specialty areas such as critical and emergency care, acute in-patient care, psychiatric care, and care delivery in the community; or outpatient care as provided by school and home care nurses. These widely varied clinical experiences foster a greater understanding of the different roles and settings within the nursing profession.

Section IV: Program and Student Assessment

Program Assessment
Assessment of the Associate of Science in Nursing Degree will be accomplished by examining the success of students in the program by examining the number of students that maintain a GPA at or above 3.0, the first-time pass rates on the NCLEX-RN, job placement rates, transfers to higher nursing degree programs, and by input from the advisory board committee. Consideration will also be given to data collected from student course and program evaluations. It must also maintain current accreditation with the NLNAC. The program will also undergo the standard R401 review process to ensure that it meets its stated objectives.

Expected Standards of Performance
Program Specific Student Learning Outcomes
Specific learning outcomes for students include:

1. Applying basic principles from the biological and behavioral sciences and nursing theory to determine nursing actions for individuals and their families in a variety of health care settings.
2. Participating as a member of a nursing team assigned to complete patient assessments, including planning, implementation and evaluation of nursing care to assist clients of all ages to meet their functional needs.
3. Safely implementing psychomotor skills.

4. Using effective communication skills with clients, family members, and health team members.
5. Providing informal health education for individuals, families, and peers.
6. Demonstrating concern for socio-cultural and spiritual values when interacting with clients and health team members in a variety of settings.
7. Displaying responsibility and accountability for his/her nursing care utilizing ethical and legal principles within their scope of practice.
8. Selecting appropriate goals for continued self-growth and vocational mobility to achieve his/her full potential.
9. Providing service to instructors, classmates, clients, family, and health team members.

The individual student's successful completion of the program and licensure through the National Council Licensing Examination for Registered Nurses serves as the outcome measure for meeting program objectives.

Section V: Finance

Budget

5-Year Budget Projection						
Departmental Data	Current Budget—Prior to New Program Implementation*	Year 1	Year 2	Year 3	Year 4	Year 5
Personnel Expense**						
Salaries and Wages	$0	$65254.46	$65254.46	$65254.46	$120,000	$120,000
Benefits	$0	$25,000	$25,000	$25,000	$50,000	$50,000
Total Personnel Expense	$0	$90,254.46	$90,254.46	$90,254.46	$170,000	$170,000
Non-personnel Expense						
Travel	$0	$6000	$6000	$6000	$7,500	$7,500
Capital***	$0	$77,064	$10,000	$10,000	$10,000	$10,000
Library	$0	$2,000	0	0	0	0
Current Expense****	$0	$9,685	$6340	$4,825	$7825	$7825
Total Non-personnel Expense	$0	$94,749	$22,340	$20,825	$25,325	$25,325
Total Expense (Personnel + Current)	$0	$185,003.46	$112,594.46	$111,079.46	$195,325	$195,325
Departmental Funding		Year 1	Year 2	Year 3	Year 4	Year 5
Appropriated Fund	$0	$183,003.46	$102,594.46	$101,079.46	$185,325	$185,325
Other:	$0	0	0	0	0	0
Special Legislative Appropriation	$0	$5,000	$5,000	$5,000	0	0
Grants and Contracts (Estimates)	$0	$20,000	$25,000	$30,000	$40,000	$50,000
Special Fees	$0	$5,850	$5,850	$5,850	$7,700	$7,700

Total Revenue	$0	$213,853.46	$138,444.46	$141,929.46	$233,025	$243,025
Difference						
Revenue – Expense	$0	$28,850	$25,850	$30,850.00	$37,700	$47,700
Departmental Instructional Cost/Student Credit Hour***** (as reported in institutional Cost Study for "current" and using the same Cost Study Definition for "projected")	$ 2510.44	$	$	$	$	$

**The expense for the current Snow/WSU cooperative nursing program is accounted for by WSU. Year one reflects the expense of the ASN at Snow College beginning 2013.*

***The Personnel expense is an estimate for 1 FT nursing faculty and 2 PT facilitators.*

FT expected annual salary to be paid	*$50,000.00*
Benefits calculated at average rate	*$25,000.00*
Hourly employee total annual hours expected: 780	
Hourly rate: $9.00/hr.	
Total hours times pay rate (780 X $9.00)	*$7,020.00*
Payroll taxes @ 8.65% of annual wages	*$607.23*
Total hourly employee annual cost (2 employees)	*$15,254.46*
Total personnel costs	*$90,254.46*

****The Table below represents an itemized breakdown of startup costs for 2 classrooms capable of originating broadcasted courses similar to the current course delivery in the existing LPN program.*

Item Description	*Per ea.*	*Number*	*Cost*
Cameras	*$800*	*4*	*$3200*
Microphone mixer	*$1000*	*2*	*$2000*
Overhead microphone -Cisco	*$1400*	*2*	*$2800*
Push-to-talk box	*$100*	*2*	*$200*
Cisco C40 video conferencing unit	*$18,000*	*2*	*$36,000*
VGA distribution amplifier (Kramer)	*$175*	*2*	*$350*
Crestron controller	*$882*	*2*	*$1764*
Power supply for Crestron	*$150*	*2*	*$300*
Interface module for Crestron	*$175*	*2*	*$350*
Connector block and switch for Crestron	*$150*	*2*	*$300*
Instructor wireless microphone system	*$500*	*2*	*$1000*
Touch screen/pad	*$2,500*	*2*	*$5000*
Facilitator computer and monitor	*$1500*	*2*	*$3000*
Document camera	*$2000*	*2*	*$4000*
TV monitors 70" LCD	*$2800*	*4*	*$11,200*
TV monitors 20" LCD	*$200*	*2*	*$400*
TV monitor mounts (lg)	*$200*	*4*	*$400*
TV monitor mounts (sm)	*$150*	*2*	*$300*
Facilitator desk/lectern	*$900*	*1*	*$900*
Instructor desk/lectern	*$1200*	*2*	*$2400*
Misc. cables/connectors/hardware/installation	*$1500*	*2*	*$3000*
		Total	*$77,064*

*****The Current expense increase details are as follows:*

Copy/printing/and other consumable products (annual)	*$2000*
NLNAC accreditation program fees (annual)	*$2825*
One-time NLNAC forum costs	*$4860*

This is to write the application and other forms for initial accreditation.

NLNAC site visit cost (in year 2) *$4340*

This is to finalize the accreditation process.

****** Projected Instructional Cost/Student Credit Hour data contained in this chart are to be used in the Third-Year Follow-Up Report and Cyclical Reviews required by R411.*

Funding Sources

Funding for the Associate of Science in Nursing Program will come from several areas. Basic funds required to support the annual needs of this program will come from the budget allocated to nursing with program student fees and institutional funds. Note: Basic operation costs including non-personnel and personnel expenses come from the funds appropriated to the department for the nursing program. These funds are comprised nearly entirely of tuition money and fees. These amounts would be a result of re-appropriation of funds and a small increase in tuition. In the past, the program has been successful in obtaining additional revenue from grants, Utah State Legislative and federal appropriation funds and other soft money sources. Future estimates as listed in Departmental Funding under special legislative appropriations, grants and private contracts are excessively conservative estimates. The department will continue to seek out, and apply for, additional revenue from both government and private sources as opportunities arise.

Reallocation

Internal reallocations will occur to ensure that this program is successful. This will include adding more sections of needed courses that support this program. In addition, some nursing instructors will take on additional workloads or redistribute loads to meet the program needs. The reallocations should be viewed as normal transitions that any institution makes in response to market demand. There have recently been a number of internal changes in the defined role and mission of Snow College. These reallocations are an extension of that mission change and in response to specifically make Snow College more innovative.

Impact on Existing Budgets

The funds needed to support this program will come from the nursing budget. The Vice President of Academic Affairs with permission of the President will fund the faculty member position, the new program budget, and needed startup costs. These funds have been factored into future budgets at Snow College and are available upon approval of this program.

Section VI: Program Curriculum

All Program Courses

Course Prefix and Number	Title	Credit Hours
Required Courses		
BIOL 2060	Microbiology	3
BIOL 2065	Microbiology Laboratory	1
BIOL 2320	Human Anatomy	3
BIOL 2325	Human Anatomy Laboratory	1
BIOL 2420	Human Physiology	3
BIOL 2425	Human Physiology Laboratory	1
BIOL 2650	Pathophysiology	3
BIOL 2655	Pathophysiology Laboratory	1
CHEM 1110*	Elementary Chemistry	4

ENGL 1010	Expository Composition	3
ENGL 2010	Intermediate Research Writing	3
HFST 1020	Principles of Nutrition	3
MATH 1040**	Introduction to Statistics	3
NURP 1102	Fundamentals of Nursing	5
NURP 1103	Pharmacology	2
NURP 1106	Pediatric and Maternity Nursing	2
NURP 1114	Caring for the Adult I	4
NURP 1107	Pediatric and Maternity Nursing II	3
NURP 1108	Mental Health Fundamentals	2
NURP 1109	Professional Transition for the Practical Nurse	2
NURP 1115	Caring for the Adult II	4
NURP 2130	Treatment Modalities	2
NURP 2114	Advanced Nursing Care of the Adult and Child	3
NURP 2214	Advanced Nursing Care of the Adult and Child Clinical	4
NURP 2180	Mental Health Nursing Across the Lifespan	2
NURP 2280	Mental Health Nursing Across the Lifespan Clinical	1
NURP 2190	Patient Care Management	2
NURP 2290	Patient Care Management	3
PSY 1010	General Psychology	3
	Sub-total	**76**
Elective Courses		
Courses from GE requirements: American Institutions, Fine Arts, and Humanities		9
	Sub-total	**9**
	Total Number of Credits	**85**

** Note: Co-requisite class required: CHEM 1115*

***Math 1030 or higher fulfills the quantitative literacy GE requirement*

General Education Courses

Course Prefix and Number	Title	Credit Hours
General Education (Pre-Requisite) Courses		
BIOL 2060	Microbiology	3
BIOL 2065	Microbiology Laboratory	1
BIOL 2320	Human Anatomy	3
BIOL 2325	Human Anatomy Laboratory	1
BIOL 2420	Human Physiology	3
BIOL 2425	Human Physiology Laboratory	1
BIOL 2650	Pathophysiology	3
BIOL 2655	Pathophysiology Laboratory	1
CHEM 1110	Elementary Chemistry	4
ENGL 1010	Expository Composition	3
ENGL 2010	Intermediate Research Writing	3
HFST 1020	Principles of Nutrition	3
MATH 1040*	Introduction to Statistics	3
PSY 1010	General Psychology	3
	SUB-TOTAL	**35**

Other General Education Courses		
	American Institutions	3
	Fine Arts	3
	Humanities	3
	SUB-TOTAL	**9**
	TOTAL	**44**

**The Math Requirement may be fulfilled with Math 1030 or higher; Math 1040 is listed as it is a specific requirement for most BSN programs.*

New Courses to Be Added in the Next Five Years

There is no need to add more classes within the next five years, as the new courses for year one will meet the needs of the program for the foreseen future. New courses to be added the first year are all of the RN core courses. They are: NURP 2130, 2114, 2214, 2180, 2280, 2190, and 2290, as listed below in the program schedule. The GE requirements being met are also listed in the required courses table and are all the non NURP courses.

Program Schedule

Program of Study Example (excluding LPN requirements)

2nd Year of Nursing Program

Course	Credits
Semester of Prerequisite Courses:	
• CHEM 1110 Elementary Chemistry	4
• MATH 1040 Introduction to Statistics	3
• ENGL 2010 Intermediate Research Writing	3
• BIOL 2650 Pathophysiology	3
• BIOL 2655 Pathophysiology Laboratory	1
Fall Semester:	
• NURP 2130 Treatment Modalities	2
• NURP 2114 Advanced Nursing Care of the Adult and Child	3
• NURP 2214 Advanced Nursing Care of the Adult and Child Clinical	4
• Courses from GE requirements:	
○ American Institutions, Fine Arts, and Humanities	3
Spring Semester:	
• NURP 2180 Mental Health Nursing Across the Lifespan	2
• NURP 2280 Mental Health Nursing Across the Lifespan Clinical	1
• NURP 2190 Patient Care Management	2
• NURP 2290 Patient Care Management	3
• Courses from GE requirements:	
○ American Institutions, Fine Arts, and Humanities	6
Total Credits	**40**

Complete Associate Degree Program Schedule

Program of Study Example (complete with LPN requirements)

1st Year of Nursing Program

Course	Credits
First Year Semester of Prerequisite Courses:	
• BIOL 2060 Microbiology	3
• BIOL 2065 Microbiology Laboratory	1
• BIOL 2320 Human Anatomy	3
• BIOL 2325 Human Anatomy Laboratory	1
• BIOL 2420 Human Physiology	3
• BIOL 2425 Human Physiology Laboratory	1
• ENGL 1010 Expository Composition	3
Semester Total	**15**
First Year Fall Semester:	
• NURP 1102 Fundamentals of Nursing	5
• NURP 1103 Pharmacology	2
• NURP 1106 Pediatric and Maternity Nursing I	2
• NURP 1114 Caring for the Adult I	4
• HFST 1020 Principles of Nutrition	3
Semester Total	**16**
First Year Spring Semester:	
• NURP 1107 Pediatric and Maternity Nursing II	3
• NURP 1108 Mental Health Fundamentals	2
• NURP 1109 Professional Transition for the Practical Nurse	2
• NURP 1115 Caring for the Adult II	4
• PSY 1010 General Psychology	3
Semester Total	**14**
Total Credits	**45**

2nd Year of Nursing Program: *Must have current Utah Practical Nurse License*

Course	Credits
Second Year Semester of Prerequisite Courses:	
• CHEM 1110 Elementary Chemistry	3
• CHEM 1115 Elementary Chemistry Laboratory	1
• MATH 1040 Introduction to Statistics	3
• ENGL 2010 Intermediate Research Writing	3
• BIOL 2650 Pathophysiology	3
• BIOL 2655 Pathophysiology Laboratory	1
Semester Total	**14**
Second (RN) Year Fall Semester:	
• NURP 2130 Treatment Modalities	2
• NURP 2114 Advanced Nursing Care of the Adult and Child	3
• NURP 2214 Advanced Nursing Care of the Adult and Child Clinical	4
• Courses from GE requirements:	
o American Institutions, Fine Arts, and Humanities	3

Semester Total	**12**

Second (RN) Year Spring Semester:

• NURP 2180 Mental Health Nursing Across the Lifespan	2
• NURP 2280 Mental Health Nursing Across the Lifespan Clinical	1
• NURP 2190 Patient Care Management	2
• NURP 2290 Patient Care Management	3
• Courses from GE requirements:	
o American Institutions, Fine Arts, and Humanities	6
Semester Total	**14**
Total Credits	**40**

Total Credits Required for Associates of Science in Nursing **85**

This program requires at least three lab courses in the Life and Physical Sciences combined (One LS and two PS or one PS and two LS). Quantitative Literacy requirement is fulfilled with Math 1030 or higher. Also, the Oral Communication and Physical Education credit requirements are omitted as they are integrated into the nursing courses. Specialized Associate Degrees may have adjustments to General Education requirements as stated in Regent's Policy 4.1.4 (4).

Section VII: Faculty

Allied Health Department

Current Full-Time Tenure-Track Faculty

- Amber Epling, Associate Professor (Tenured), MSN, University of Phoenix
- Dean Brereton, Assistant Professor, MSN, Western Governor's University
- Debi Sampson, Assistant Professor, MSN, Walden University
- Maria Allen, Assistant Professor, MSN, University of Phoenix
- Sauna Olsen, Instructor, MSN, Grand Canyon University
- Jenifer Quarnberg, Instructor, MSN, Benedictine University

Current Adjunct Faculty

- Cyndi Jorgensen, Adjunct, MSN, University of Phoenix

Biology Department

Current Full-Time Tenure-Track Faculty

- Lamar Cook, Associate Professor (Tenured) ,DPM, California College of Podiatric Medicine
- Gregary S. Edwards, Instructor – MS, University of Maryland
- Paul A. Gardner, Professor (Tenured),PhD, Northern Arizona University
- Luis Gordillo, Assistant Professor, PhD, Brigham Young University
- Heidi K. Johnson, Instructor, MS, Brigham Young University
- Joseph M. Papenfuss, Professor (Tenured), PhD, Purdue University
- Kevin Sorensen, Associate Professor (Tenured), PhD, Utah State University
- Allan R. Stevens – Professor (Tenured), PhD, Brigham Young University

Current Adjunct Faculty

- Scott Brady, Adjunct, MS, Washington State University
- Nathan Blackner, Adjunct, MS, University of Maryland

- Amy Delbeg, Adjunct, MS
- Chris Larsen, Adjunct, DVM, Colorado State University
- Michael Moon, Adjunct, MS, Utah State University
- Megan Nordquist, Adjunct
- Melinda Ostraff, Adjunct, PhD, University of Victoria
- James Tatton, Adjunct, MD, University of Utah

Chemistry Department

Current Full-Time Tenure-Track Faculty

- Dan Black, Associate Professor (Tenured), EdD, Utah State
- Clinton King, Assistant Professor, MS, University of Illinois
- Mark Wathen, Assistant Professor, PhD, University of Northern Colorado
- Doug Wendel, Associate Professor (Tenured), MS, University of Utah

Current Adjunct Faculty

- Lars Johnson, Adjunct, MS
- Emily Platt, Adjunct
- Steven Rowley, Adjunct, MS

Mathematics Department

Current Full-Time Faculty

- Cindy Alder, Instructor, MEd, Utah State University
- Kari Arnoldsen, Professor (Tenured), PhD, Brigham Young University
- Jonathan Bodrero, Assistant Professor (Tenured), MS, Brigham Young University
- Omel Contreras, Instructor, MA, Brigham Young University
- Ron Dalley, Instructor, MA, Brigham Young University
- Mel Jacobsen, Professional Track
- Janalee Jeffery, Instructor, MS, University of Utah
- Ted Olson, Professor (Tenured), MS, University of Utah
- Kenyon Platt, Assistant Professor, PhD, University of Georgia
- Larry Smith, Professor (Tenured), PhD, University of Texas at Austin
- Steven Zollinger, MS

Current Adjunct Faculty

- Nathan Costa, Adjunct, MA
- Renae Everitt, Adjunct, BA
- Tammy German, MEd
- Beckie Hermansen,EdD
- Spencer Hill, Adjunct, MBA
- Lorie Hughes, Adjunct, BA (MA in progress)
- Phillip Johnson, Adjunct, MA
- Kent Runolfsen, Adjunct, MA
- Orval Skousen, Adjunct, MS
- Rex Jeppson, Adjunct
- Paul Rasmussen, Adjunct
- Jennifer Zollinger, Adjunct
- Shawna Cole, Adjunct

- Allen Jacobsen, Adjunct
- Bruce Erickson, Adjunct
- Bart Nelson, Adjunct
- Lynn Lindsay, Adjunct

English Department

Current Full-Time Faculty

- David Allred, Associate Professor, PhD, University of Missouri
- Jannette Anderson, Associate Professor, MA, Utah State University
- Kent Bean, Assistant Professor, PhD, Bowling Green State University
- Susan Burdett, Professor, Ph D, University of California - Davis
- Jeff Carney, Associate Professor, MA, University of Illinois
- Erick Faatz, Associate Professor, MA, Colorado State University
- Kevin Holsworth, Instructor, MA, Utah State University
- Melanie L. Jenkins, Associate Professor, MA, Brigham Young University
- Rachel Keller, Assistant Professor, PhD, University of New Mexico
- Michael Kowalski, Professor, PhD, University of California – Berkeley
- Ron Lamb, Associate Professor, MS, Utah State University
- Steve Peterson, Professor, MA, University of Hawaii
- David Rosier, Associate Professor, PhD, Utah State University
- Gregory Wright, Assistant Professor, PhD University Nevada Las Vegas

Current Adjunct Faculty

- Lynn Anderson, Adjunct, MLIS, Brigham Young University
- Monica Anderson, Adjunct, MEd, Southern Utah University
- Lucinda Averett, Adjunct, MS, Utah State University

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds℠

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.utahsbr.edu

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Snow College – Associate of Applied Science, Certificate of Completion, and Certificate of Proficiency in Industrial Mechanics

Issue

Snow College requests approval to offer the Associate of Applied Science (AAS) Degree, a Certificate of Completion, and a Certificate of Proficiency in Industrial Mechanics, effective Fall Semester 2012. The Snow College Board of Trustees approved these programs on April 13, 2012. These programs are designed to be sequential in a stackable format by embedding in the AAS degree the certificate of proficiency and certificate of completion. Students will earn these certificates as they complete requirements for the degree. Industry-based employable skills are developed at each of these three levels. In response to industry input, the institution will deliver program courses in a format utilizing five-week instructional modules.

Background

The Industrial Mechanics certificates and AAS degree programs are designed in response to an employment need discovered during extensive business and industry discussions with at least 63 employers and industry representatives in Snow College's service region. From these discussions, it was determined that many of the local businesses are looking for, but not finding, employees who possess the skills these programs are designed to provide. It was noted that a number of these businesses will need to replace an aging workforce. Specifically, area employers indicated as much as 60% of the current workforce is at, or will be at, retirement age in the next several years.

The programs are designed to create workforce-ready students to be employed directly or prepared for further education in an area of industrial mechanics or industrial shop management. The programs will prepare students to install, maintain, diagnose, troubleshoot, and repair complex and integrated industrial equipment and systems. It is anticipated that students who complete the AAS degree will have opportunities for further education in select four-year programs at other Utah System of Higher Education (USHE) institutions. The programs will embed current and emerging technologies as determined by the program advisory committee and continued discussions with industry partners.

Policy Issues

While the primary purpose of this program is workforce development, Snow College personnel desire that the AAS degree program provide transfer opportunities for graduates. To that end, Snow College is working with other USHE institutions to identify select four-year programs that would represent transfer opportunities for students consistent with Regent Policy R470. While no formal agreements are yet in place specific to this program, work is progressing in this regard. Academic personnel from the other institutions in the state system have reviewed the certificate and AAS degree programs, have provided input, and are supportive of the program moving forward. At least two four-year programs have been identified as possible candidates for transfer.

Commissioner's Recommendation

The Commissioner recommends the Regents approve the request by Snow College to offer the Associate of Applied Science, the Certificate of Completion, and the Certificate of Proficiency in Industrial Mechanics, effective Fall Semester 2012.

David L. Buhler
Commissioner of Higher Education

DLB/BKC
Attachment

Programs and Planning Committee

Action Item

Request to Offer an Associate of Applied Science, the Certificate of Completion, and the Certificate of Proficiency in Industrial Mechanics

Snow College

Prepared for:
David L. Buhler
by
Blair K. Carruth

September 5, 2012

Program Description
Snow College
Associate of Applied Science, the Certificate of Completion, and the Certificate of Proficiency in Industrial Mechanics

Section I: The Request

Snow College requests approval to offer the Associate of Applied Science (AAS) Degree, a Certificate of Completion, and a Certificate of Proficiency in Industrial Mechanics, effective Fall Semester 2012. The Snow College Board of Trustees approved these programs on April 13, 2012.

Section II: Program Description

Complete Program Description

The Industrial Mechanics certificate and associate of applied science (AAS) degree programs are designed for students desiring to work as general mechanics in industrial, manufacturing, processing, and related areas. The programs prepare students to install, maintain, diagnose, troubleshoot, and repair complex and integrated industrial equipment and systems.

The programs will combine lecture and hands-on laboratory time to provide the requisite information and practical exposure so that students develop skills and competencies required in the workplace. They will provide hands-on training using current technology with exposure to live systems via internships and other on-the-job training experiences. Major discipline areas include mechanics, machining, welding, electricity, electronics, internal combustion engine principles and repair, pneumatics, and hydraulics. Safety policies and procedures will be taught at every level and will simulate real world safety competencies whenever possible. Graduates of the Industrial Mechanics programs will have the knowledge and skills necessary to maintain and troubleshoot today's complex equipment.

Purpose of Degree

The programs fill an employment need discovered during extensive business and industry discussions. Following discussions with local economic development personnel, Department of Workforce Services (DWS), Vocational Rehabilitation and affected industry partners, it was determined that many of the industrial businesses in Snow's six county service areas are looking for, but not finding, prepared workforce candidates when job openings are available.

The purpose of the AAS degree is to create workforce-ready and transfer-linked students to be employed directly or after completing a bachelor's degree in an area of industrial mechanics or industrial shop management. The degree will provide the needed short-term training with an embedded certificate of proficiency and certificate of completion. Students will earn these certificates as they complete requirements for the degree. These programs will be paced with current and emerging technologies as determined by the program advisory committee and continued discussions with industry partners. The AAS degree will enable students to go directly into the workforce and/or transfer to select programs at a four-year institution. Industry partners have indicated that as much as 60% of their current workforce is at, or will be at, retirement age in the next several years and require trained students to enter the workforce.

Institutional Readiness

This new program request is a result of extensive research and discussion with business and industry in the college's area. Snow College is institutionally prepared to offer these programs for the following reasons:

- Snow College has a history of fulfilling the needs of Career and Technical Education training in central Utah.
- The infrastructure at both campuses, Richfield and Ephraim, are in place already. No additional funds are needed for new buildings and limited funds are needed for renovation of existing spaces.
- Snow College entered into discussions with business and industry, economic development, school districts, county governments and the Department of Workforce Services (DWS) to ensure that future job opportunities will be available for students graduating from the programs.
- Many of the courses required for completion of the certificates or degree are already taught at Snow College, requiring fewer new courses to be developed.
- Equipment costs are minimal and needed equipment purchases will be made in concert with other programs being developed at Snow College allowing the College to leverage the use of most equipment for multiple programs.

Faculty

Many of the courses required for this degree are currently offered and therefore can be accommodated by current faculty. Many of the new courses that need to be developed for the programs will also be requirements in subsequent programs within the Industrial Technology Department. There will be some shifting of workload to accommodate new courses and enhancement of current courses. Many of the existing courses and many of the new courses will be offered in a fully online or hybrid format. The programs will require a new full-time faculty member to cover the majority of industrial mechanics competencies and three adjunct instructors to cover specific domain areas such as industrial pneumatics, hydraulics, and electronics.

Faculty Category	Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Faculty Headcount at Full Program Implementation
With Master's Degrees			
Full-time Tenured	1		1
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
With Bachelor's Degrees			
Full-time Tenured	1		1
Full-time Non-Tenured	1	1	2
Part-time Tenured			
Part-time Non-Tenured			
Other			
Full-time Tenured			
Full-time Non-Tenured	2		2
Part-time Tenured			
Part-time Non-Tenured	2	3	5
Total Headcount Faculty			

Full-time Tenured	2		2
Full-time Non-Tenured	3	1	4
Part-time Tenured			
Part-time Non-Tenured	2	3	5
Total Department Faculty FTE (As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")	7.23	1.75	8.98

Staff

It is not anticipated that a staff member will need to be hired at this time. Coverage in the laboratories, organizing internships, assisting in the management of outreach efforts, and other duties will be assigned to current and new faculty.

Library and Information Resources

Recommended and required Industrial Mechanics resource materials will be purchased and housed in the Huntsman Library on the Ephraim Campus or the Snow College Richfield Library. The library staff at each campus routinely solicits departments and divisions to improve and update collections. The departments are encouraged to inform library staff of resource needs or changes on an annual basis for new courses or courses with significant modification. These resources ensure the needed materials will be available and accessible to students in the new Industrial Mechanics programs.

Admission Requirements

Any matriculated Snow College student will be eligible to enroll in the programs.

Student Advisement

Advisement of students will be accomplished in a three-fold manner. Snow College full-time advisors will advise students with a general interest in industrial technology. These advisors will provide the students with general information concerning the programs and degrees available in the Industrial Technology department including the Industrial Mechanics programs. As part of this advisement, they will provide the students with the pathways needed to complete coursework towards a certificate of proficiency, certificate of completion, and the AAS degree. Along with providing available pathways, these individuals will advise students on the best plan to help them meet their educational goals while improving their marketability to potential employers and that facilitate transfer.

Justification for Graduation Standards and Number of Credits

The AAS program as outlined requires 69 credits. This complies with Utah System of Higher Education policy R401-4.1.2, which states that the required number of credits is between 63 and 69. In this program, students will be advised to take transferrable General Education (GE) courses, which will increase the transfer capacity of program credits, if they choose to continue their education. The transferrable courses include courses in General Chemistry, Leadership and Professional Development, and Strategic Innovation. The Certificate of Proficiency requires 29 credits and the Certificate of Completion requires 31 credits. These certificates are embedded into the AAS degree. Students who complete the degree complete all requirements for the two certificates and have the option to transfer to select four-year

programs in the state. This complies with the Utah System of Higher Education policy R401-3.9 and 3.10, which states that the required number of credits is between 16-29 and 30-33, respectively. The credit requirements follow on-the-job competencies companies in the Central Utah area have requested.

External Review and Accreditation

The Industrial Mechanics programs were developed with the assistance of at least 63 professionals from Snow College's service region representing higher education, government entities, regional economic development, DWS, regional public education superintendents, private industrial technology businesses and the Snow College Career and Technical Education advisory committee. Representatives from these groups quantified the skills, abilities and experiences new hires should possess to make them more employable in the field.

The Industrial Mechanics programs will have an advisory committee composed of eight to ten individuals, representing existing area businesses and other program-related entities such as regional economic development personnel, DWS, and industrial certification and accreditation organizations. The advisory committee will serve as external reviewers and give direction to the programs during implementation and through necessary revisions due to changing technology and industry requirements.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students

Data Category	Current – Prior to New Program Implementation	Projected Year 1	Projected Year 2	Projected Year 3	Projected Year 4	Projected Year 5
Data for Proposed Program						
Number of Graduates **in Proposed Program**	0	11	16	16	20	25
Total # of Declared Majors **in Proposed Program**	0	15	16	16	20	25
Departmental Data – For All Programs Within the Department						
Total Department Faculty FTE (as reported in Faculty table above)	7.23	8.23	8.48	8.48	8.73	8.98
Total Department Student FTE (Based on Fall Third Week)	118.49	124.41	130.64	137.17	144.03	151.23
Student FTE per Faculty FTE (ratio of Total Department Faculty FTE and Total Department Student FTE above)	16.38	17.21	15.87	16.67	16.00	16.80
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: (Provide ratio	N/A	N/A	N/A	N/A	N/A	N/A

here:_____ _____)						

Expansion of Existing Program
These are new programs under the newly reorganized Industrial Technology Department and are a result of requests from industry to develop such offerings. They are not an expansion of an existing program.

Section III: Need

Program Need
These programs are needed due to the employment availability in the south central Utah region as well as the greater non-metro Utah region and Snow's charge as the institution to improve the education and marketability of students in the six-county service region for immediate employment or transfer-linked opportunities.

Snow has worked with its Continuing Education and Economic Development representative in determining the need for these programs based on interaction with regional economic development personnel. The institution has a number of employers in the region who take advantage of Custom Fit Training and Short Term Intensive Training programs. The Industrial Mechanics programs will provide needed training in the region and will create and utilize pathways from short-term training into entry-level certificate credentials leading toward the AAS degree.

Labor Market Demand
The Bureau of Labor Statistics estimates the overall labor market for Industrial Machinery Mechanics and Millwrights will grow by a projected 25,000 annual openings between now and 2018. The majority of these positions are for Industrial Machinery Mechanics at 20,900 positions annually. This represents an approximate seven percent annual growth rate over the next six years.

Additionally, the Utah State Department of Workforce Services indicates a growth pattern for these same occupations. Although the Utah data show a lower growth rate than the national data, the projected Utah employment demand appears sufficient to justify program need within context of the institution's projected program enrollment. Based on feedback from 63 employers within Snow College's service area, the institution reports the need for trained industrial mechanics to replace retiring mechanics and to prepare for projected employment growth.

Local workforce data is presented in the tables below and come from the Utah Job Outlook: Utah Statewide Occupational Projections 2008 – 2018 available on-line.[1]

Statewide Data

SOC Code	Occupation	Stars	Employment Estimates		Average Annual Growth Rate	Annual Openings		
			2008	2018		Growth	Replacements	Total
49-9041	Industrial Machinery	4	3,220	4,060	2.6%	80	50	130

[1] http://jobs.utah.gov/wi/pubs/outlooks/state/statepublish.pdf)

	Mechanics							
49-9042	Maintenance and Repair Workers, General	5	10,460	12,660	2.1%	220	160	380
49-9043	Maintenance Workers, Machinery	4	840	990	1.7%	10	10	30
49-9044	Millwrights	2	200	220	1.1%	0	0	10

Utah Non-Metro Occupational Projections

SOC Code	Occupation	Stars	Employment Estimates		Average Annual Growth Rate	Annual Openings		
			2008	2018		Growth	Replacements	Total
49-9041	Industrial Machinery Mechanics	5	610	800	3.1%	20	10	30
49-9042	Maintenance and Repair Workers, General	4	1,360	1,680	2.4%	30	20	50
49-9043	Maintenance Workers, Machinery	3	140	160	1.3%	0	0	0
49-9044	Millwrights	No data was available for this occupation.						

Student Demand

Several courses in current CTE programs overlap with course requirements for the Industrial Mechanics programs. As of Spring Semester, 2012 there were 143 enrollments in program-related courses. It is expected that some currently enrolled students will take advantage of the new programs, leveraging courses they have taken for their current majors.

Surveys were conducted of various individuals and employers to gauge interest in the new programs. Feedback from these surveys suggests there will be sufficient student demand to reach an enrollment base of 25 declared majors, the institution's enrollment goal for the programs.

Similar Programs

There are no identical programs in the region that are designed to prepare students for jobs in industry or to prepare them to transfer to a four-year program. Similar industrial mechanics programs were evaluated and researched in preparing the coursework for the programs as listed below:

- Coconino Community College – Arizona, Industrial Maintenance Technician
- College of Southern Idaho – Idaho, Industrial Mechanic Program
- Corning Community College – New York, Mechanical Technology
- Great Basin College – Nevada, Industrial Millwright Technology
- Kalamazoo Valley Community College – Michigan, Maintenance Mechanic Industrial Program
- Monroe Community College – New York, Mechanical Technology

- North Idaho College – Idaho, Maintenance Mechanic/Millwright
- San Juan College – New Mexico, Industrial Maintenance Mechanic Program
- Western Wyoming Community College – Wyoming, Industrial Maintenance Technology

Collaboration with and Impact on Other USHE Institutions
The AAS in Industrial Mechanics program's primary purpose is designed to prepare students for the workforce. However, the program is also designed to link into select four-year programs so that students have options for continued education. Snow College officials are working with other four-year institutions in Utah to identify select programs that will serve as transfer opportunities for students. It is anticipated that over time other four-year institutions in the Utah System of Higher Education will be the recipient of some graduates of the Industrial Mechanics AAS program.

Benefits
The Certificate of Proficiency, Certificate of Completion and the AAS in Industrial Mechanics will benefit the State of Utah by preparing workforce-ready and transfer-linked graduates. Program graduates may enter the workforce and/or continue in their education. The programs provide pathways to employment and additional education for students, and they provide industry with workers who possess needed industry-specific skills.

Additionally, the CTE Division currently offers some of the skill sets and competencies in this new degree, but in semi-isolated and narrow pathways. Snow College currently offers certificates and AAS degrees in Welding and Machine Tool Technology. Although students from these current degrees are highly skilled, enrollment and placement figures are low. By reorganizing the division for a broader application of industrial skills, Snow is able to provide the needed educational opportunities to prepare students to take positions in industry to meet the current and future demand. Snow expects that enrollments, placements and transfers will increase.

Consistency with Institutional Mission
The Snow College mission statement reads: "Snow College continues a tradition of excellence, encourages a culture of innovation, and cultivates an atmosphere of engagement to advance students in the achievement of their educational goals."

The Industrial Mechanics programs are a reflection of the Snow College CTE Division's desire to encourage and maintain a culture of innovation and provide advancement opportunities for students to achieve educational goals that lead to workforce-ready positions or to pursue further educational goals. Based on Snow's long-standing tradition of excellence, the college intends to build and successfully implement meaningful offerings in industrial mechanics.

The programs will provide educational opportunities for outreach to traditional and non-traditional post high school students and employees of industrial technology businesses. Because Snow College has the responsibility of serving these varied student types, the college seeks to innovate and create an environment that will allow all these groups to attend Snow College. For that reason, much of the coursework will be taught in accelerated five-week blocks instead of traditional 16-week semester blocks. This will enable access and student achievement at a speed requested by and demanded by industry, and will make the training available to all student groups, including fully employed students needing to upgrade and/or maintain skills. Snow has compared this model with peer institutions offering similar programs who

have measured success in satisfying scheduling requirements for industry students. Additionally, hybrid courses and where feasible, on-line courses, are being developed to make program offerings available at outreach locations including high schools, partner technical centers and industrial sites.

Finally, the programs are designed in an integrative learning format allowing more time for hands-on skills acquisition, competency attainment and assessed demonstrations of performance.

In the recently released report from Snow College titled A Blueprint for the Future, one of the Centers for Opportunity is described as a Center for Opportunities in Regional Workforce and Economic Development.

The Industrial Mechanics programs are a direct outgrowth of Snow's relationship with economic development and workforce groups in its service area and are a response to the need for training to support current and future industrial growth in the region.

Section IV: Program and Student Assessment

Program Assessment

The Certificate of Proficiency, Certificate of Completion, and AAS degree in Industrial Mechanics will be assessed by examining the success of students in the required coursework, by tracking transfer and job placement rates and by feedback from businesses, industry and program's advisory committee.

Expected Standards of Performance

- Students will be able to assess industrial work areas and practices, and recognize potential safety hazards and implement accepted methods to mitigate those hazards.
- Students will be able to assess present conditions and determine the action needed to obtain desired conditions based on a critical analysis of situations.
- Students will be able to communicate in electronic, verbal and written formats.
- Students will be able to recognize, understand and follow schematic drawings and diagrams of equipment and processes in their areas of study.
- Students will be able to write coherent reports and documents.
- Students will have an understanding of the equipment, techniques accepted practices and procedures normally encountered in various industrial settings.
- Students will have an understanding of the requirements of a successful industrial operation commonly found in industrial settings.
- Students will learn to deal professionally and ethically with clients, the public and co-workers.
- Students will learn to work effectively both individually and with others through class projects and through internship experiences.
- Students will practice a collaborative spirit in team effort and project coordination.

Section V: Finance

Budget

Note: Budget data described below shows estimated incremental costs associated with adding these programs as well as the anticipated funding sources that will be used to provide program support.

5-Year Budget Projection						
Departmental Data	**Current Budget— Prior to New Program Implementation**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Personnel Expense						
Salaries and Wages	0	$60,000	$85,000	$85,000	$110,000	$135,000
Benefits	0	$26,730	$26,730	$26,730	$26,730	$26,730
Total Personnel Expense	**0**	**$86,730**	**$111,730**	**$111,730**	**$136,730**	**$161,730**
Non-personnel Expense						
Travel	0	$2,000	$2,000	$2,000	$2,000	$2,000
Capital	0	$125,000	$60,000	$20,000	$20,000	$20,000
Library	0	$2,000	$1,000	$500	$500	$500
Current Expense	0	$10,000	$10,000	$10,000	$10,000	$10,000
Total Non-personnel Expense	0	$139,000	$73,000	$32,500	$32,500	$32,500
Total Expense (Personnel + Current)	$0	$225,730	$184,730	$144,230	$169,230	$194,230
Departmental Funding		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Appropriated Fund	0	$100,730	$51,730	$71,230	$169,230	$194,230
Other:	0	$100,000	$60,000	0	0	0
Special Legislative Appropriation	0	0	0	0	0	0
Grants and Contracts	0	$25,000	$73,000	$73,000	0	0
Special Fees / Differential Tuition	0	0	0	0	0	0
Total Revenue	$0	$225,730	$184,730	$144,230	$169,230	$194,230
Difference						
Revenue - Expense	$0	$0	$0	$0	$0	$0
Departmental Instructional Cost/Student Credit Hour* (as reported in institutional Cost Study for "current" and using the same Cost Study Definition for "projected")	$257	$264.71	$272.65	$280.83	$289.26	$297.93

**Projected Instructional Cost / Student Credit Hour data contained in this chart are to be used in the Third-Year Follow-Up Report and Cyclical Reviews required by R411.*

Funding Sources

Initial funding for the programs will come from institutional funds, Department of Workforce Services grant funds, a Trade Adjustment Assistance Community College and Career Training federal grant, and transferred budget funds from the closure of other programs. Long-term funding will come from ongoing

institutional funds, student tuition, and student fees. The institution anticipates hiring one full-time faculty member and up to three additional adjunct faculty members. There are sufficient resources in place to support these personnel costs.

Reallocation

Internal reallocations will occur to ensure the programs are successful. Existing courses will be expanded via additional sections, online or hybrid additions. The current instructors in the Industrial Technology department in the Machine Tool Technology and Welding Technology programs will change their schedules to accommodate the needs of the new programs. Some of their workload will be reassigned to other existing full-time instructors and adjunct instructors.

Impact on Existing Budgets

It is anticipated that new budgets for the programs will come partly from budgets of recently suspended offerings.

Section VI: Program Curriculum

All Program Courses

Course Prefix And Number	Title	Credit Hours		
Required Courses		CP	CC	AAS
MTT 1000	Machine Tool Tech	2	2	2
Math 1010 or INDM 1715	College Algebra or Technical Math	2or4	2or4	2or4
CIS 1011 or BT1010	Intro to Computers	2or3	2or3	2or3
WELD 1020	Shielded Metal Arc Welding	4	4	4
INDM 1050	Industrial Safety	1	1	1
INDM 1300	Industrial Mechanics III	3	3	3
INDM 1600	Industrial Electricity	3	3	3
INDM 1800	Industrial Hydraulics	3	3	3
INDM 1100	Industrial Mechanics I	3*		3
INDM 1060	Industrial Print Reading	3*		3
INDM 1200	Industrial Mechanics II	3*		3
ENGL 1010 or BT 2200	Business Communications		3	3
INDM 1500	Industrial Pneumatics		3	3
INDM 1820	Industrial Pumps		3	3
INDM 1930	Leadership and Professional Development–Course 1		1	1
INDM 2930	Leadership and Professional Development–Course 2		1	1
DMT XXXX	Introduction to Diesel and Small Engines			3
CHEM 1010	Introductory Chemistry			4
CHEM 1015	Introductory Chemistry Lab			1
MTT 1110A	Machine Tool I			3
MTT 1125A	Machine Tool Shop I			3
INDM 1400	Industrial Mechanics IV			3
INDM 1620	Industrial Electronics			3
BMGT 1700	Strategic Innovation			1

INDM 1840	Industrial Rigging			3
INDM 1900	Industrial Controls and PLC			3
WELD 2200A	Semi-Auto Processes/MIG			2
	SUB-TOTAL	**29-32**	**31-34**	**69-72**
Elective Courses		**CP**	**CC**	**AAS**
N/A	N/A	N/A	N/A	N/A
	SUB-TOTAL	**0**	**0**	**0**
Track Options (If Applicable)		**CP**	**CC**	**AAS**
N/A	N/A	N/A	N/A	N/A
	SUB-TOTAL	**0**	**0**	**0**
	TOTAL NUMBER OF CREDITS**	**29**	**31**	**69**

**Pre-requisite class for the Certificate of Completion program.*
***Minimum number of credits that can be earned in each degree.*

New Courses to Be Added in the Next Five Years

Semester 1	Course Prefix and Number	Course Title
Approved 4/25/12	INDM 1100	Industrial Mechanics I
Approved 4/25/12	INDM 1200	Industrial Mechanics II
Approved 4/25/12	INDM 1300	Industrial Mechanics III
Approved 4/25/12	INDM 1050	Industrial Safety
Approved 4/25/12	INDM 1060	Industrial Print Reading
Semester 2		
Submitted to CC for 9/2012	INDM 1400	Industrial Mechanics IV
Submitted to CC for 9/2012	INDM 1500	Industrial Pneumatics
Submitted to CC for 9/2012	INDM 1600	Industrial Electricity
Submitted to CC for 9/2012	INDM 1800	Industrial Hydraulics
Approved 4/25/12	INDM 1930	Leadership and Professional Development–Course 1
Semester 3		
Submitted to CC for 9/2012	INDM 1820	Industrial Pumps
Submitted to CC for 9/2012	INDM 1840	Industrial Rigging
Submitted to CC for 9/2012	INDM 1900	Industrial Controls and PLC
Approved 4/25/12	INDM 2930	Leadership and Professional Development–Course 2

Program Schedule

Typical Program of Study for AAS Degree

Freshman Year – Fall Semester		
COURSE	**COURSE TITLE**	**CREDITS**
INDM 1100	Industrial Mechanics I	3
INDM 1200	Industrial Mechanics II	3
INDM 1300	Industrial Mechanics III	3
INDM 1050	Industrial Safety	1
INDM 1060	Industrial Print Reading	3
MTT 1000	Survey of Machine Tool Technology	2
Human Relations Requirement		

INDM 1930	Leadership and Professional Development	1
	TOTAL SEMESTER CREDITS	**16**
Freshman Year – Spring Semester		
COURSE	**COURSE TITLE**	**CREDITS**
INDM 1400	Industrial Mechanics IV	3
MTT 1110A	Machine Tool I	3
MTT 1125A	Machine Tool Shop I	3
WELD 1020	Shielded Metal Arc Welding	4
INDM 1600	Industrial Electricity	3
	Communications Requirement (*Take one of the following)*	
ENGL 1010	Expository Composition	3
BT 2200	Business Communication	3
	TOTAL SEMESTER CREDITS	**19**
Sophomore Year – Fall Semester		
COURSE	**COURSE TITLE**	**CREDITS**
WELD 2200A	Semi-Auto Processes / MIG	2
INDM 1500	Industrial Pneumatics	3
DMT XXXX	Intro to Diesel and Small Engines	3
INDM 1620	Basic Electronics	3
	(Take one of the following)	
CIS 1011	Introduction to Computers	2
BT 1010	Introduction to Computers and Business Applications	3
	Computation Requirement *(Take one of the following)*	
INDM 1715	Technical Math	2
MATH 1010	Intermediate Algebra	4
	Human Relations Requirement	
INDM 2930	Leadership and Professional Development	1
	TOTAL SEMESTER CREDITS	**16-19**
Sophomore Year – Spring Semester		
COURSE	**COURSE TITLE**	**CREDITS**
BMGT 1700	Strategic Innovation	1
INDM 1900	Industrial Controls and PLC	3
INDM 1800	Industrial Hydraulics	3
INDM 1820	Industrial Pumps	3
INDM 1840	Industrial Rigging	3
	Chemistry Requirement	
CHEM 1010	Introductory Chemistry	4
CHEM 1015	Introductory Chemistry Lab	1
	TOTAL SEMESTER CREDITS	**18**
	TOTAL CREDITS	**69-72**

Typical Program of Study for Certificate of Completion

Sophomore Year – Fall Semester		
COURSE	**COURSE TITLE**	**CREDITS**
INDM 1050	Industrial Safety	1

INDM 1930	Leadership and Professional Development–Course 1	1
MTT 1000	Survey of Machine Tool Technology	2
INDM 1500	Industrial Pneumatics	3
WELD 1020	Shielded Metal Arc Welding	4
	(Take one of the following)	
INDM 1715	Technical Math	2
MATH 1010	Intermediate Algebra	4
	(Take one of the following)	
CIS 1011	Intro to Computers	2
BT 1010	Introduction to Computers and Business Applications	3
	TOTAL SEMESTER CREDITS	**15-18**
	Sophomore Year – Spring Semester	
COURSE	**COURSE TITLE**	**CREDITS**
INDM 1300	Industrial Mechanics III	3
INDM 1600	Industrial Electricity	3
INDM 1800	Industrial Hydraulics	3
INDM 1820	Industrial Pumps	3
INDM 2930	Leadership and Professional Development–Course 2	1
	(Take one of the following)	
ENGL 1010	Expository Composition	3
BT 2200	Business Communications	3
	TOTAL SEMESTER CREDITS	**16**
	TOTAL CREDITS	**31-34**

Typical Program of Study for Certificate of Proficiency

	Freshman Year – Fall Semester	
COURSE	**COURSE TITLE**	**CREDITS**
INDM 1100	Industrial Mechanics I	3
INDM 1050	Industrial Safety	1
INDM 1060	Industrial Print Reading	3
INDM 1200	Industrial Mechanics II	3
MTT 1000	Survey of Machine Tool	2
	(Take one of the following)	
INDM 1715	Technical Math	2
MATH 1010	Intermediate Algebra	4
	TOTAL SEMESTER CREDITS	**14-16**
	Freshman Year – Spring Semester	
COURSE	**COURSE TITLE**	**CREDITS**
WELD 1020	Shielded Metal Arc Welding	4
INDM 1600	Industrial Electricity	3
INDM 1800	Industrial Hydraulics	3
INDM 1300	Industrial Mechanics III	3
	(Take one of the following)	
CIS 1011	Introduction to Computers	2
BT 1010	Introduction to Computers and Business Applications	3

TOTAL SEMESTER CREDITS	**15-16**
TOTAL CREDITS	**29-32**

Section VII: Faculty

Industrial Technology Department

Current Full Time Tenure / Professional Track Faculty

- Alan Hart, Professional Track, AAS, Snow College
- Alan Palmer, Associate Professor, MEd, Southern Utah University
- New Full-Time Instructor

Current Part Time Faculty

- Dain Houston, AAS, Snow College
- Two to three Adjunct/Part-Time Instructors.

Transportation Technology Department

Current Full Time Tenure / Professional Track Faculty

- Brent Reese, Associate Professor, BS, Southern Utah University
- Bob Gary, Professional Track, AAS, Dixie State College
- Robert Boyer, Professional Track, BS, Utah Valley University

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds℠

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah Scholars Initiative Annual Report

Background

The Utah Scholars Initiative (USI) was launched in the 2006-2007 school year with a $300,000 grant from the United States Department of Education and the Western Interstate Commission for Higher Education (WICHE). The initiative is a business and education partnership in which volunteers go into 8th grade classrooms to share a presentation that encourages students to prepare for their future by taking the Utah Scholars Core Course of Study—a defined college preparatory curriculum—throughout all 4 years of high school. In 2006-2007, the Utah Scholars Initiative visited eight middle schools and four high schools, reaching 2,400 students. By 2011-2012, the USI had grown nearly ten-fold, as volunteers visited 69 schools and presented to more than 22,800 students.

The Utah Scholars Core Course of Study was adopted in 2008 as the course criteria for the Regents' Scholarship. Utah Scholars works with partner districts and schools that primarily serve a large percentage of underserved populations. This intentional outreach effort strives to increase awareness of what it takes to be ready and successful in college. The Regents' Scholarship is currently the financial incentive linked to this program, although the scholarship is available to all Utah students who qualify.

Issue

In the 2011-2012 academic year, the USI partnered with 65 middle/junior high schools and 45 high schools. Tooele School District joined Alpine, Canyons, Davis, Granite, Jordan, Ogden, Park City, Provo, Salt Lake, and Washington School Districts as USI partners, thus expanding our outreach. The USI staff trained 245 volunteers—individuals and employees of our 24 partner organizations—to go into the schools and give presentations. A complete summary of the year's activities is in the attached 2011-2012 USI Annual Report.

The most significant recent change in the USI has been personnel. In July, Dr. Christie Fox joined the Outreach and Access Unit as Utah Scholars Program Coordinator, after serving as Director of the Honors Program at Utah State University for seven years. Christie joins Melissa Miller Kincart, Assistant Commissioner for Outreach and Access and Darby Thomas, USI Assistant, to continue to strengthen relationships with partner districts and schools. Her goals include adding significant educationally relevant

and timely student incentives from our business and community partners. She is encouraging more partners to become affiliates with schools or districts, thus committing to make all of the 8th grade presentations in that school or district. Such a partnership cements the relationship between the community partner and the school, and provides continuity to the school. These partnerships may eventually evolve into opportunities such as internships and scholarships for USI students. Additionally, she plans to increase the number of students committing to be a Utah Scholar in the 8th grade, so that more students will complete a rigorous college preparatory curriculum while in high school and have access to the benefits that USI provides.

It is important to note that program sustainability has been made possible during the 2008-2012 academic years by monies provided to the State Board of Regents from the U. S. Department of Education's College Access Challenge Grant. USI is also an approved activity for the new 2012-2013 College Access Challenge Grant the Board received in August of this year. The Utah Scholars Initiative has been instrumental in helping the Utah System of Higher Education maintain capacity and momentum toward increasing academic and financial preparation so more Utah citizens might more fully participate in postsecondary education.

Commissioner's Recommendation

This is an information item only, no formal action by the Board is required. However, the Board is encouraged to read and take note of the information in this memorandum and review the attached annual report, and note that further follow-up will be handled by the Commissioner's Office as part of the Board's Participation strategic objective.

David L. Buhler
Commissioner of Higher Education

DLB/MMK
Attachment

Utah Scholars Initiative

Annual Report 2011-2012

The Utah Scholars Initiative

A message from the Program Coordinator:

Greetings! The 2011-2012 academic year was another busy and noteworthy one for the Utah Scholars Initiative. We reached more than 22,800 students through our classroom presentations—the most ever! We also increased our volunteer base by 28%. Inside this report you can read about our year highlights and where we are headed for next year. If you're new to Utah Scholars, this report will give you an overview regarding what we do and where we do it. As always, we are sincerely grateful to our volunteers and community partners. Together, we are helping more students understand the importance of going to college and using the tools available to them to step up to higher education.

-Christie Fox, Utah Scholars Program Coordinator

"Classroom presentations are engaging and support the many goals and efforts we have to enrich and enhance our students' awareness of their future of planning for college and careers, and in increasing awareness for the beginning steps of preparing financially for post-secondary education."

-**Cari Fifield**, *Hillside Middle School Counselor*

"Utah Scholars is one program that we have used as a vehicle to discuss future opportunities. The 8th grade teachers have been very receptive of this program. They have used some of the information to support their own subjects."

-**Carter Haacke**, *Sunset Jr. High School Counselor*

"I have so enjoyed being a Utah Scholars volunteer. Having a daughter in 8th grade this year made volunteer work especially meaningful. I believe that most of these students have not given much thought to college—neither did I! Our presentations give a sense of urgency that it is never too early to plan and that education truly is a great investment in ourselves and our society. I look forward to teaching a student at Salt Lake Community College that may come up to me and ask if I remember presenting to them several years ago as an 8th grader. That would really be sweet!"

-**Berdje Bezdjian**, *Volunteer from Salt Lake Community College*

"I absolutely love being a Utah Scholars volunteer and wish I had the time to do multiple presentations each week. The program gives me the opportunity to touch students and get them excited about education and the opportunities available to them. I get excited when students come and thank me or ask me for more information after the presentation. I think the program is successful because it not only shows students the value of an education but gives them money to help them get that education. Utah Scholars is a great program that could benefit every student if they choose to use the information and resources provided."

-**Valerie Neibaur**, *Volunteer from Management Plus*

"I have been volunteering with Utah Scholars since 2010 and I am proud and honored to be involved with a program that gives individuals and companies the opportunity to talk to our youth about the importance of getting a college education and the different ways they can earn money to pay for college. Many of the children I present to do not feel that college is an option for them and I feel it's important to share my story as a first-time college student. I try to make a connection with the students and convey this important message in a way that will help shape their outlook and future."

-**Wendy Gibson**, *Volunteer from Check City*

Background

Utah Scholars By the Numbers

4: the number of districts in which the USI started in 2006

12: the number of partner USI districts today

110: USI partner schools in those districts

245: the number of volunteers trained to give the USI presentation in 2011-2012

17: the number of USI volunteers who gave **10** or more presentations in 2011-2012

22,838: the number of students reached by USI volunteers in 2011-2012

541: middle school presentations made by USI volunteers in 2011-2012

40: high school visits made by USI in 2011-2012

1,724: 8th grade students who signed up to be a Utah Scholar in 2011-2012

1,051: number of Utah high school students who received recognition as a Utah Scholar Awardee in 2012

38: Senior award nights at which students received their USI medals and certificates

Key Dates in History

1989: State Scholars Initiative created by business leaders in Longview, TX. This initiative went on to receive federal funding during George W. Bush's first term as president.

2006: National State Scholars Initiative provided a $300,000 grant to Utah to pilot the program in four districts (Granite, Jordan, Park City, and Provo).

The success of the Utah Scholars Initiative is dependent upon the participation of business, community, and higher education partners. Partners are encouraged to support students by making classroom presentations, offering participation incentives, internships, and business-sponsored scholarships. Additionally, Utah's colleges and universities encourage their faculty, staff, students, and alumni to volunteer in their local schools as a classroom presenter or mentor to students involved in the Utah Scholars Initiative.

The Utah Scholars Initiative is coordinated through the Outreach and Access department of the Utah System of Higher Education.

The Utah Scholars staff works with partner schools and volunteers to:

- Organize classroom presentations
- Deliver volunteer training and support
- Provide outreach support and publications

About Utah Scholars

The Utah Scholars Initiative inspires students who are looking forward to a successful future by motivating them to complete the Utah Scholars Core Course of Study in high school, preparing them for college and careers.

Utah Scholars is a high-impact program intended to motivate students to complete a defined course of study while in high school to better prepare them for college and future employment.

Outreach and Access Staff

Melissa Miller Kincart
Assistant Commissioner Outreach and Access

Christie Fox
Utah Scholars Program Coordinator

Darby A. Thomas
Utah Scholars Program Assistant

Carrie F. Beckman
Scholarship Manager

Andrea Cox
College Access Challenge Grant Manager

www.utahscholars.org

Three Main Goals

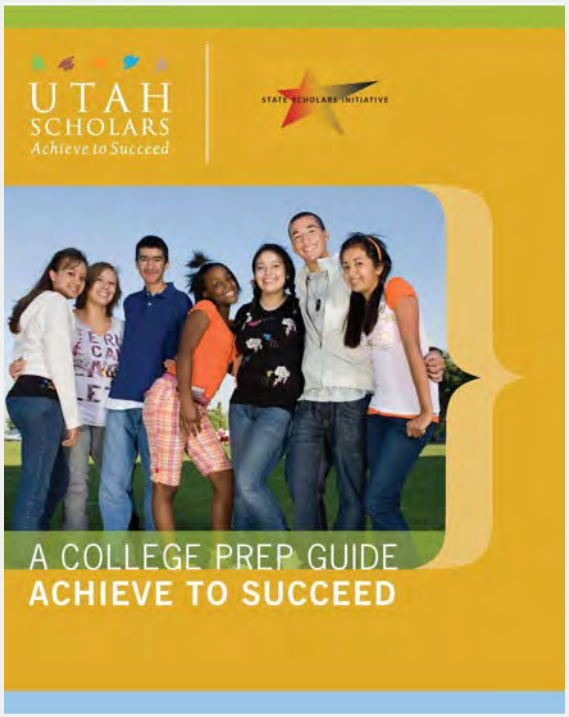
⇒ Helps students, particularly minority and disadvantaged students, understand the academic preparation needed to succeed in post-secondary education and the workforce.

⇒ Increases the number of Utahns joining the workforce and contributing to the economic prosperity of the state.

⇒ Provides a way for local communities and businesses to interact with local schools in a meaningful way.

Core Course of Study

The Utah Scholars Core Course of Study is based on national course recommendations that ensure students are prepared for life beyond high school. The courses are proven to help students prepare for post-secondary education and the workforce. The Utah Scholars Core Course of Study also gives students the foundation to be eligible to apply for scholarships and financial aid. Students are introduced to the Utah Scholars Core Course of Study in their 8th grade year by local community volunteers.



- 4 years/credits of English
- 4 years/credits of math (one class beyond Algebra 2, or Math 3)
- 3.5 years/credits of social science
- 3 years/credits lab-based science (one biology, one chemistry, one physics)
- 2 years/credits same world language (taken progressively during grades 9-12)
- Maintain a 3.0 GPA, maintain a C in core courses, & submit an ACT score

Businesses, Community, and Higher Education Working Together

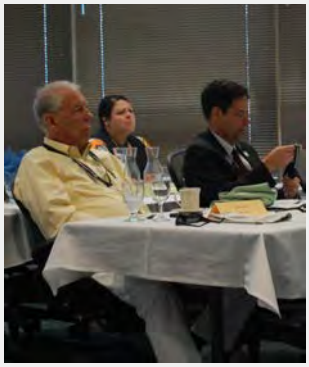
The Utah Scholars volunteer base began with approximately twenty individual volunteers scattered throughout four participating school districts: Granite School District, Jordan School District, Park City School District, and Provo School District, with thirteen partner schools. Today, our volunteers include not only individual volunteers, but also ongoing partnerships with organizations and businesses such as: Cyprus Credit Union, Check City, and the Energy Solutions Foundation.

Today, the Utah Scholars volunteer base has expanded to more than 245 trained volunteers who give their support and time both as individual volunteers and as part of organizational and community group partnerships throughout 11 participating school districts.

	Utah Scholars 2006-2007	Utah Scholars 2007-2008	Utah Scholars 2008-2009	Utah Scholars 2009-2010	Utah Scholars 2010-2011	Utah Scholars 2011-2012
Volunteers/ Organizations	20 Volunteers trained 2 Organizations	50 Volunteers trained 5 Organizations	50 Volunteers trained 10 Organizations	110 Volunteers trained 17 Organizations	191 Volunteers trained 22 Organizations	**245 Volunteers trained 24 Organizations**
Districts	4	9	9	10	10	**11**
Presentations	Approx. 75	Approx. 410	320	400	609	**699**
Students Reached	Approx. 2,000	Approx. 10,110	Approx. 8500	Approx. 14,200	Approx. 20,600	**Approx. 22,800**

Volunteer Recognition Event 2011-2012

During the Third Annual Utah Scholars Appreciation Luncheon, we recognized volunteers for their outstanding volunteer efforts and ongoing support of the initiative. The program included a 2011-2012 programmatic overview, and keynote addresses by Wendy Gibson, District Manager for Check City, and Judy Petersen, Assistant Director for College & Career Readiness for Granite School District.



Volunteer Spotlight

At our luncheon, we had the opportunity to recognize several individuals and partner organizations for their outstanding support of USI.

2011-2012 Outstanding Volunteers:

- Kim Gilbert, Cyprus Credit Union
- Garrett Dutson, Energy Solutions

2011-2012 Outstanding Partner School:

- Valley Junior High School, Granite School District - Sarah White, Guidance Counselor

Five volunteers received a special five-year recognition award:

- Diane Bradshaw
- Debby Lauret
- Treesa Parker
- Dustin Phillips
- Karen Seo

Utah Scholars Partner Schools and Districts 2011-2012

Alpine School District

High Schools

American Fork High School
Lehi High School
Lone Peak High School
Mountain View High School
Orem High School
Pleasant Grove High School
Timpanogos High School
West Lake High School

Jr. High/Middle Schools

American Fork Jr. High
Canyon View Jr. High
Lakeridge Jr. High
Lehi Jr. High
Mountain Ridge Jr. High
Oak Canyon Jr. High
Orem Jr. High
Pleasant Grove Jr. High
Timberline Middle
Vista Heights Middle*
Willowcreek Middle

Canyons School District

High Schools

Brighton High School*
Hillcrest High School
Jordan High School

Jr. High/Middle Schools

Albion Middle School*
Butler Middle School*
Eastmont Middle School
Midvale Middle School
Mount Jordan Middle School
Union Middle School

Davis School District

High Schools

Bountiful High School
Clearfield High School
Davis High School
Layton High School
Northridge High School
Syracuse High School
Viewmont High School
Woods Cross High School

Jr. High/Middle Schools

Bountiful Jr. High
Centennial Jr. High*
Centerville Jr. High
Central Davis Jr. High
Fairfield Jr. High
Farmington Jr. High
Legacy Jr. High*
Millcreek Jr. High
Mueller Park Jr. High
North Davis Jr. High
North Layton Jr. High
South Davis Jr. High
Sunset Jr. High
Syracuse Jr. High
West Point Jr. High*

Granite School District

High Schools

Cyprus High School*
Granger High School
Hunter High School
Kearns School

Jr. High/Middle Schools

Brockbank Jr. High
Hunter Jr. High
Jefferson Jr. High*
Kearns Jr. High*
Kennedy Jr. High
Matheson Jr. High
Valley Jr. High
West Lake Jr. High

Charter School

AMES
Academy of Math, Engineering, and Science

Jordan School District

High Schools

Bingham High School*
Copper Hills High School
West Jordan High School

Jr. High/Middle Schools

Elk Ridge Middle School*
Joel P. Jensen Middle School
South Jordan Middle School*
West Hills Middle School
West Jordan Middle School

Ogden School District

High Schools

Ben Lomond High School
Ogden High School

Jr. High/Middle Schools

Highland Jr. High School
Mound Fort Jr. High
Mount Ogden Jr. High

Park City School District

High Schools

Park City High School

Jr. High/Middle Schools

Treasure Mountain Jr. High

Provo School District

High Schools

Provo High School
Timpview High School

Jr. High/Middle Schools

Centennial Middle School
Dixon Middle School

Salt Lake School District

High Schools

East High School
Highland High School
West High School

Jr. High/Middle Schools

Bryant Middle School
Clayton Middle School
Glendale Middle School
Hillside Middle School
Northwest Middle School

Tooele School District

High Schools

Dugway High School*
Grantsville High School*
Stansbury High School*
Tooele High School*
Wendover High School*

Jr. High/Middle Schools

Clarke N. Johnsen Jr. High*
Grantsville Jr. High*
Tooele Jr. High*

Washington School District

High Schools

Desert Hills High School
Dixie High School
Enterprise High School
Hurricane High School
Pine View High School
Snow Canyon High School

Jr. High/Middle Schools

Desert Hills Middle School
Dixie Middle School
Hurricane Middle School
Pine View Middle School
Snow Canyon Middle School

*Newly Added Partner School

Presentations 2011-2012

Districts	Schools	Presentations Given	Students Reached
Alpine District	11	134	4,418
Canyons District	6	62	2,012
Charter - AMES	1	3	143
Davis District	16	155	5,095
Granite District	8	69	2,415
Jordan District	6	67	2,064
Ogden District	3	31	890
Park City District	1	12	360
Provo District	2	33	946
Salt Lake District	6	55	1,559
Tooele District	3	33	952
Washington District	6	45	1,984
TOTAL	**69**	**699**	**22,838**

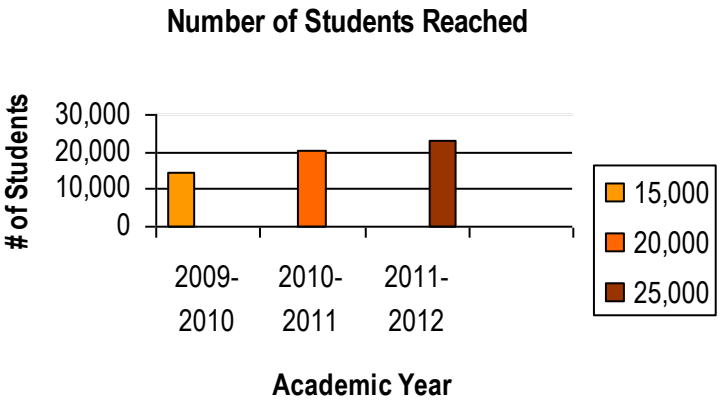
Awardees 2011-2012

Partner District	Awardees
Alpine	348
Canyons	131
Charter - AMES	15
Davis	174
Granite	18
Jordan	82
Ogden	4
Park City	40
Provo	44
Salt Lake	73
Tooele	23
Washington	99
TOTAL	**1,052**

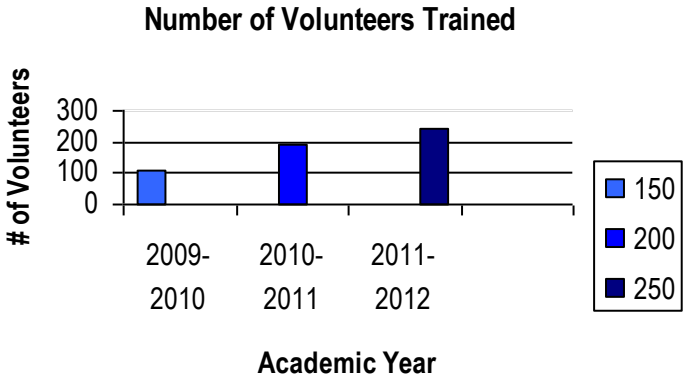
Programmatic Growth

Since its beginning in 2006, the Utah Scholars Initiative has continued to expand its outreach efforts. In 2011-2012, we reached a record 22,838 students and our volunteers and staff gave nearly 700 presentations in 69 schools! Our volunteer base continues to grow, and we hope to bring on even more partners this year, with an emphasis on school or district adoption. When a community partner adopts a school or district, they give all the presentations in that school or district, solidifying their relationship to the school and the community. The schools also start to see the same faces giving presentations each year.

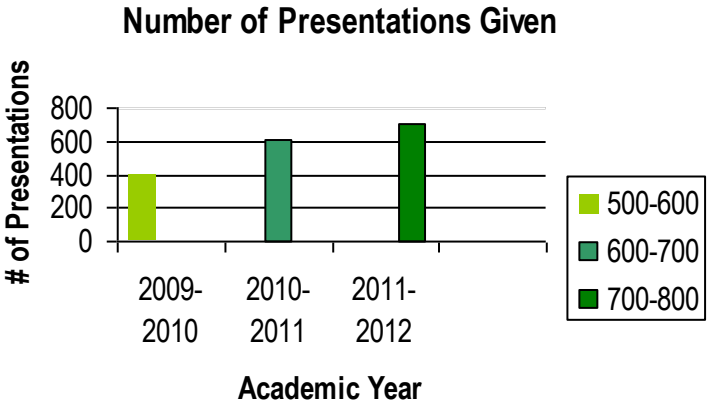
Academic Year	Number of	% Increase
2011-2012	**22, 838**	**11%**
2010-2011	20,566	44%
2009-2010	14,243	67%



Academic Year	Number of Volunteers Trained	% Increase
2011-2012	**245**	**28%**
2010-2011	191	74%
2009-2010	110	120%



Academic Year	Presentations Given	% Increase
2011-2012	**699**	**15%**
2010-2011	609	52%
2009-2010	400	25%



Utah Scholars Student Survey Responses

In each school, we survey students to learn about their college plans and to evaluate the effectiveness of our presentations. Our results from 2011-12 show that our students want to go to college and realize that the courses they take in high school affect their ability to get there. By the end of the presentation, 90% plan to take the Core Course of Study.

	Alpine	Canyons	Charter	Davis	Granite	Jordan	Ogden	Park City	Salt Lake	Tooele	Washington	Total	%
Question 1	**Do you want to go to college?**												
Yes	3,117	1,161	56	3,657	1,349	1,163	426	250	654	1,061	1,406	**14,300**	92.2
No	25	13	2	44	16	15	9	5	49	20	11	**209**	1.3
Undecided	202	63	5	264	123	81	45	16	9	96	105	**1,009**	6.5
Question 2	**Why do you want to go to college?**												
Parents	1,640	616	32	2,065	625	589	193	155	338	548	636	**7,437**	17.7
Better Life	2,806	1,082	55	3,439	1,305	1,021	417	231	610	1,002	1,298	**13,266**	31.7
What you do	1,033	400	26	1,305	310	357	88	91	204	318	412	**4,544**	10.8
Job	2,808	988	44	3,308	1,090	1,002	346	239	495	956	1,248	**12,524**	29.9
Friends	1,002	323	7	1,148	255	343	103	106	164	288	391	**4,130**	9.9
Question 3	**Do you think the classes you take in high school affect your ability to get into college?**												
Yes	2,974	1,113	51	3,547	1,217	1,098	389	237	589	1,058	1,383	**13,656**	87.8
No	46	17	1	72	52	22	43	5	33	27	39	**357**	2.3
Sometimes	321	101	11	356	225	146	50	30	96	96	108	**1,540**	9.9
Question 4	**Has participating in the Utah Scholars presentation today influenced your decision to enroll in college after high school?**												
Yes	2,359	819	42	2,838	1,116	887	331	193	481	834	1,033	**10,933**	72.2
No	237	109	7	255	82	88	25	29	71	95	106	**1,104**	7.3
Somewhat	706	257	8	773	244	237	94	50	135	237	370	**3,111**	20.5
Question 5	**Has participating in the Utah Scholars presentation today influenced your decision to enroll in the core course of study?**												
Yes	2,403	810	41	2,818	1,044	867	331	203	475	828	1,080	**10,900**	72.2
No	169	75	5	204	59	47	25	18	53	57	64	**776**	5.1
Somewhat	705	293	9	840	335	296	91	50	161	280	361	**3,421**	22.7
Question 6	**Will you take the Utah Scholars Core Course of Study during high school (9-12)?**												
Yes	2,797	976	53	3,280	1,227	1,054	386	226	573	987	1,286	**12,845**	90.4
No	263	112	2	369	131	99	39	30	82	102	131	**1,360**	9.6
Question 7	**Will you sign up to be a Utah Scholar on the website (www.utahscholars.org)?**												
Yes	2,296	777	41	2,814	1,027	848	314	205	470	807	1,020	**10,619**	77.3
No	581	297	13	726	297	263	101	50	160	254	373	**3,115**	22.7

Future of Utah Scholars: Accomplishments, Goals, and Expansion

Volunteer Expansion and Accomplishments 2011-2012

This year, the Utah Scholars Initiative organized more than 15 volunteer trainings for businesses and institutions of higher education, introducing USI to interested volunteers and creating new partnerships.

Each year, the Utah Scholars Initiative sets programmatic and administrative goals in order to increase overall effectiveness, both internally as well as with Utah Scholar partnerships among districts, schools, and business, community, and higher education leaders. Here we look back at our goals from last year and are pleased to show our progress.

Goal #1: **Partner District/School Expansion**
The Utah Scholars Initiative added several new schools within existing partner districts, including: Albion Middle School, Butler Middle School, and Brighton High School in Canyons District; Centennial Middle School in Davis School District; and Elk Ridge Middle School, South Jordan Middle School, and Bingham High School in Jordan District.

Goal #2: **Student Participation and Incentives**
The Utah Scholars Initiative increased student participation by hosting one-on-one student guidance sessions at: Kearns High School, Granger High School, Hunter High School, and Cyprus High School in Granite District. We provided presentations to all 10th grade students at Bingham High School in Jordan District. Additionally, we sent parent information leaflets designed to accompany 9th grade registration packets to our partner schools.

Goal #3: "**Volunteer Best Practices" to replace "Volunteer Mentor Program"**
This year, the Utah Scholars Program Coordinator more actively engaged in volunteer mentoring by observing and providing feedback to volunteers who gave the Utah Scholars 8th Grade Presentation. Additionally, in conjunction with *Flying Hat Productions*, we created a Utah Scholars Volunteer Training Video which is available on the website as a resource for both volunteers and partner schools.

Programmatic Changes

The Utah Scholars Initiative was enhanced this year with the following staff changes:

New Utah Scholars Program Coordinator
Christie Fox joined the Outreach and Access Division within the Utah System of Higher Education as Utah Scholars Program Coordinator in July 2012. Christie comes from higher education, having spent 7 years as Director of the Honors Program at Utah State University. She is eager to build upon that work through the Utah Scholars Initiative.

New College Access Challenge Grant Manager
Andrea Cox, the former Utah Scholars Program Coordinator, has been promoted to serve as the new College Access Grant Manager (CACG).

Future Goals

Goal #1: **Student Incentives**
As part of an ongoing desire to follow-up with students after the 8th grade presentations, the Utah Scholars Initiative will invite business and community partners to donate company logoed items and sponsor student/parent gatherings and recognitions. Our goal is to increase real student incentives for participation, and to make those incentives educationally relevant and timely.

Goal #2: **Additional Outreach—USI Presentation for 11th graders**
In the upcoming academic year, the Utah Scholars Initiative will look to specifically follow-up with four key partner pilot high schools to give a classroom presentation to all 11th grade students. These presentations will focus on the next steps and link directly to the Regents' Scholarship.

Goal #3: More Student Commitments
The Utah Scholars Initiative presents to every 8th grade class in our partner schools, giving us the opportunity potentially to reach every 8th grader in the district. Currently, student commitments to complete the Utah Scholars Core Course of Study vary dramatically from district to district. We hope to increase the number of students committing to be a Utah Scholar in 8th grade, and ultimately to increase the number of Utah students who are completing a rigorous college prep curriculum while in high school.

A Special Thanks to all Utah Scholars Partners

American Fork Chamber of Commerce

AmeriCorps Vista

AVID

Bank of America

Bank of American Fork

Check City

Cyprus Credit Union

Direct Communications

Echelon Inc.

Energy *Solutions*, LLC

Imagine Learning

L-3 Communications

Management Plus

Microsoft

Mountain American Credit Union

SentrX Animal Care

SRS, Inc.

United Way of Utah County

Utah Technology Council

VOX Creative

Wells Fargo

Zars Pharma

Zions Bank

Zions Securities

UTAH SCHOLARS
Achieve to Succeed ®

The Utah Scholars Annual Report is paid for by a grant from the U.S. Department of Education. However, the contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: StepUp to Higher Education Update and College Guide

Background

For the Utah System of Higher Education to reach the "big goal" of having 66% of Utah's workforce with postsecondary degrees by 2020, it is essential to increase college participation from student populations who may have never considered higher education as a viable option. The StepUp to higher education campaign is a social awareness campaign to reach out to these students, paid for, and made possible, by a grant from the U.S. Department of Education, the College Access Challenge Grant (CACG). The campaign encourages all Utah youth to dream big about their futures, and then act on those dreams by preparing for and completing college. Whether aiming for a one-year certificate or a four-year degree, StepUp provides tips, tools, resources and conversation starters on preparing and paying for college so that obtaining higher education can be a reality for all Utahns.

Issue

The StepUp Campaign was launched a year ago and centers on a comprehensive website which serves as a "front desk" to higher education in Utah. StepUpUtah.com has had 15,101 visits and 49,767 page views and targets three key groups with supporting messages: 12 years of age and under: ***Encourage the Dream,*** Youth 12 and over: ***Inspire to Act,*** *and* Parents, families, mentors and educators: ***Support the Journey.*** Over the past year we have also launched a number of additional strategies and grassroots efforts to drive traffic to the website including: the development of five television commercials and two radio ads, online banners, posters, powerpoint templates, standees and incorporated social media, public relation value added, and developed partnerships with Arctic Circle, Disney, Comcast, KSL, and United Way. Additionally, StepUp was the featured keynote address and workshop offering at the USOE June statewide counselor conference in Heber, Utah. In addition to the thousands who have seen or heard television and radio spots, through our outreach presentations in the community, work with public schools and college and university partnership events, we have **reached through personal contact 4,474** educators, parents, families and students.

One of the critical collateral pieces that was developed this year is the new college guide publication, ***Living the Dream***, which incorporates the look and feel of a teen magazine, and provides essential steps and information for planning and preparing for college. The CACG grant has made it possible for us to print 95,000 copies that will be distributed by the Utah Council to every high school this fall through their senior tour. Additionally, these guides will be distributed to all our Utah Scholars junior high partner schools, USHE ImPACT subgrantees, College Access Network programs, as well as showcased in our Counselor StepUp Toolkits.

Over the next year the campaign will build upon the media, website, and partnerships that are in place and will roll out a "Counselor Toolkit" at the UHSE Counselor Conference September 21, parent brochures, social media and digital strategy, develop a Facebook game and kids book, and partner with KJZZ in reaching students and families through the high school football and basketball seasons with promotional scripts and halftime activities.

This federal grant has helped to further the Regents' strategic priority of increasing participation in higher education. It has been instrumental in helping the Utah System of Higher Education maintain capacity and momentum toward increasing academic and financial preparation so more Utah citizens might more fully participate in postsecondary education.

Commissioner's Recommendation

This is an information item only, no formal action by the Board is required. However, the Board is encouraged to read and take note of the information in this memorandum and review the attached annual report, and note that further follow-up will be handled by the Commissioner's Office as part of the Board's Participation strategic objective.

David L. Buhler
Commissioner of Higher Education

DLB/MMK
Attachments

STEPUP
TO HIGHER EDUCATION

StepUp Utah is a campaign designed to help low-income, underrepresented students and their parents step up and reach their potential by providing inspiration and the necessary tools for them to obtain a college degree.

StepUp to Higher Education encourages all Utah youth to dream big about their futures, and then act on those dreams by preparing for and completing college. Whether aiming for a one-year certificate or a four-year degree, StepUp provides tools like financial aid assistance and preparation tips that will help make higher education a reality. Regardless of roadblocks, when youth have the desire, college is more than possible – it's inevitable.

Our campaign is aimed at three main audiences with targeted messages:

1. Encourage the Dream

A campaign aimed at children 12 years of age and younger, encouraging kids to make their dreams a reality through furthering their education.

Objectives:

- Build on dreams for a better life
- Educate children on the importance of school at an early age

Outreach through the following tactics:

- Television commercials, website, community events and interaction at the Title 1 school level

2. Inspire to Act

A campaign aimed at youth 12 and over that inspires them to act on their dreams by taking the right courses, seeking financial assistance and ultimately going to college.

Objectives:

- Illustrate the importance of education and how it impacts their lives
- Teach youth about the right classes to take to prepare them for college
- Give them access to resources about financial assistance

Outreach through the following tactics:

- Television and radio commercials, website, grassroots and community partnerships, and interaction at the Title 1 school level

3. Support the Journey

A campaign aimed at assisting parents, mentors, and educators with the steps and tools necessary in encouraging children to continue their education through college.

Objectives:

- Start the conversation early
- Education parents on the importance of a college education
- Provide parents with the tools to assist in the process

Outreach through the following tactics:

- Website, printed materials, public relations, grassroots, and community partnerships

Visit us at www.StepUpUtah.com • Contact us at StepUp@utahsbr.edu

Additional StepUp Support Resources

Encourage the Dream - TV 30 Second Commercials

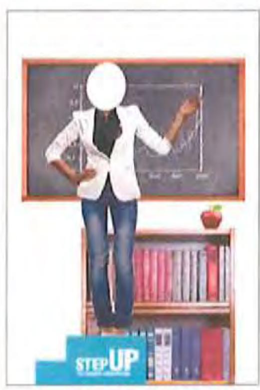
Inspire to Act - TV 15 Second Commercials

Posters

PowerPoint Templates for Grades 7-12, Counselors, and Parents

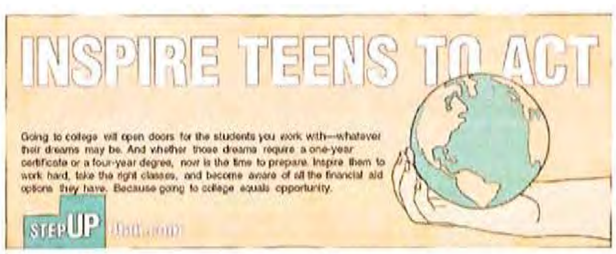
College Guide

StepUp Standees



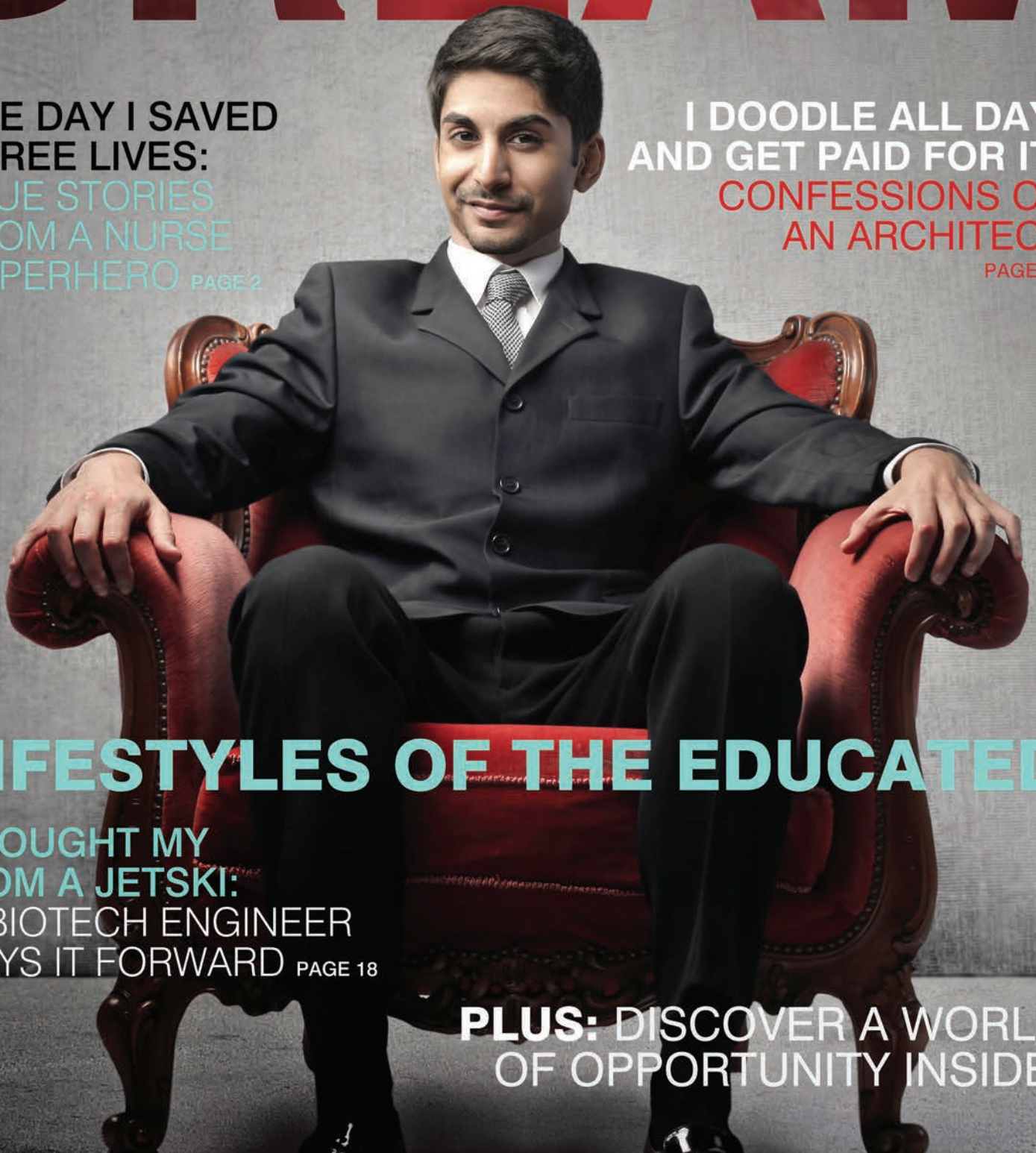
StepUpUtah.com - Something for Everyone

Ads for Conference Programs and Posters



Paid for by a grant from the U.S. Department of Education. However, the contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

LIVING THE DREAM



THE DAY I SAVED THREE LIVES: TRUE STORIES FROM A NURSE SUPERHERO PAGE 2

I DOODLE ALL DAY AND GET PAID FOR IT: CONFESSIONS OF AN ARCHITECT PAGE 10

LIFESTYLES OF THE EDUCATED

I BOUGHT MY MOM A JETSKI: A BIOTECH ENGINEER PAYS IT FORWARD PAGE 18

PLUS: DISCOVER A WORLD OF OPPORTUNITY INSIDE!

Now, let's talk about your dreams.

What do you want to do? Who do you want to be? You can step up to your dreams right now by stepping up to higher education. From one-year certificates to four-year degrees and beyond, college can deliver your dreams. Regardless of roadblocks, when you have the desire, it's more than possible—it's inevitable. So don't let anything stand in your way.

How can you start? In your hands at this very moment is a College Planning Guide that will help you every step of the way. Keep it handy and explore its pages for all the tools and tips that can help you make higher education a reality.

Table of Contents

Step Up & Check Off

11. Keep Studying and Working Hard

Every year of high school counts toward opening a future full of possibilities.

10. Visit Colleges

Visit different college campuses where you can ask questions, take tours, and get more information on their application procedures and deadlines.

9. Visit StepUp.com, Again

Click 'Financial Aid' to learn about the different options available to help you pay for college.

8. Talk to Your Counselor, A Lot

Your counselor can give you advice about course choices, your college readiness skills, taking practice tests on UtahFutures.org, signing up to take the ACT and/or SAT in your Junior and/or Senior year and so much more.

7. Consider Taking Challenging Classes in High School

Advanced Placement (AP), International Baccalaureate (IB), or Concurrent Enrollment (CE) classes.

6. Set Up a Meeting with Your Counselor

Reviewing your plan to be college and career ready is a must.

5. Research Schools Through UtahFutures.org

Which schools have the degrees I am interested in?

School options: _____

4. Take the Career Interest Inventory at UtahFutures.org

The inventory will help you figure out what careers might interest you the most.

Career options: _____

3. Log Into Your UtahFutures.org Account

Ask your counselor for help with your State Student Identification Number (SSID) if you are not sure what your username is.

Username: _____ *Password:* _____

2. Read the College and Career Readiness Recommendations

Go to page 5 to review this important information with parents, counselors or family members.

1. Visit StepUpUtah.com

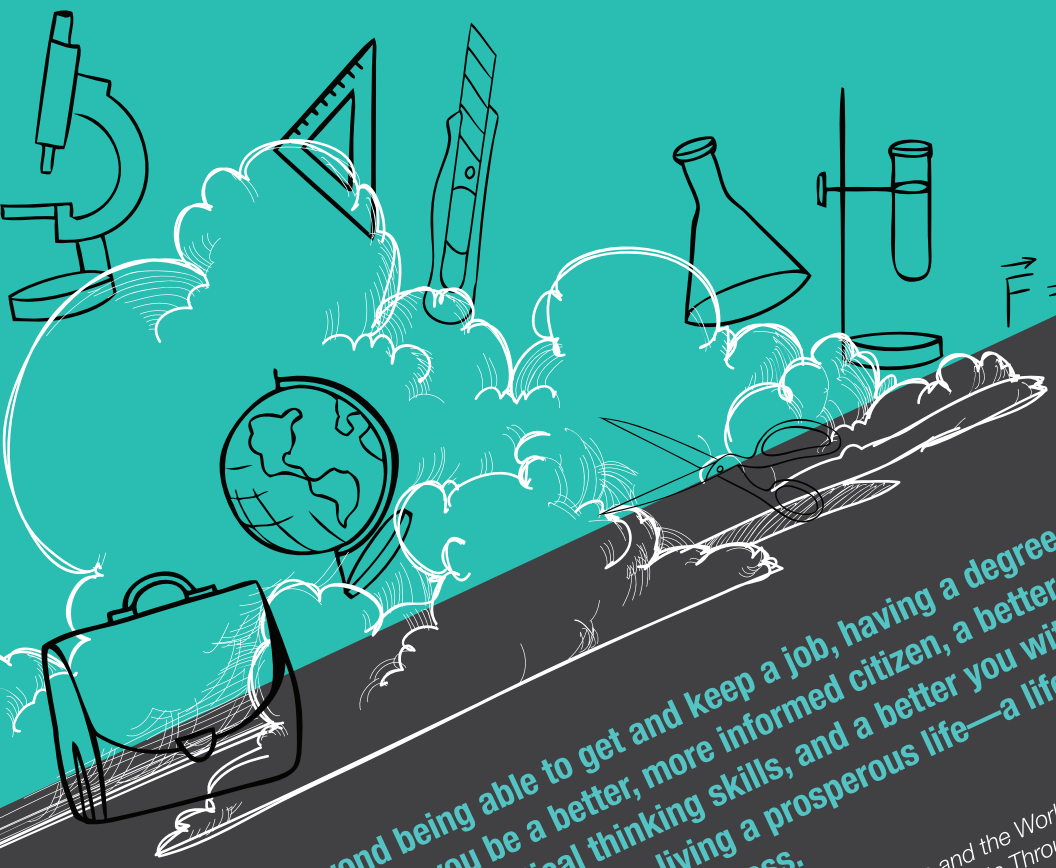
Click 'Stay on Track' for a grade-by-grade checklist.

From one-year certificates to four-year degrees,

college = opportunity

Going to college will open doors for you. Doors that open to your dreams, whatever they may be. Maybe an associate's degree in nursing. Possibly a bachelor's degree in business. Even a certificate in diesel mechanics or a degree in computer information systems. The options are endless. But here's the great thing; no matter what higher education looks like to you, it means success for everyone in the form of better pay, more employment, more security for you and your family, better benefits like health insurance and retirement plans, and most of all, opportunity.

Whether you're after living your passion or earning money, we all know a job is not just a job. There's a lot of variety out there, and going to college can position you for the best opportunities. Did you know the vast majority of jobs in the future economy will require some level of postsecondary (college) education? It's true. In fact, the Georgetown report* states that by 2018 66% of all jobs in Utah will require postsecondary education.



Beyond being able to get and keep a job, having a degree or certificate will help you be a better, more informed citizen, a better spouse and parent with critical thinking skills, and a better you with confidence. Education is the key to living a prosperous life—a life of opportunity, options, fulfillment and success.

*Source: The Georgetown University Center on Education and the Workforce, "Help Wanted: Projections of Jobs and Education Requirements Through 2018," June 2010.

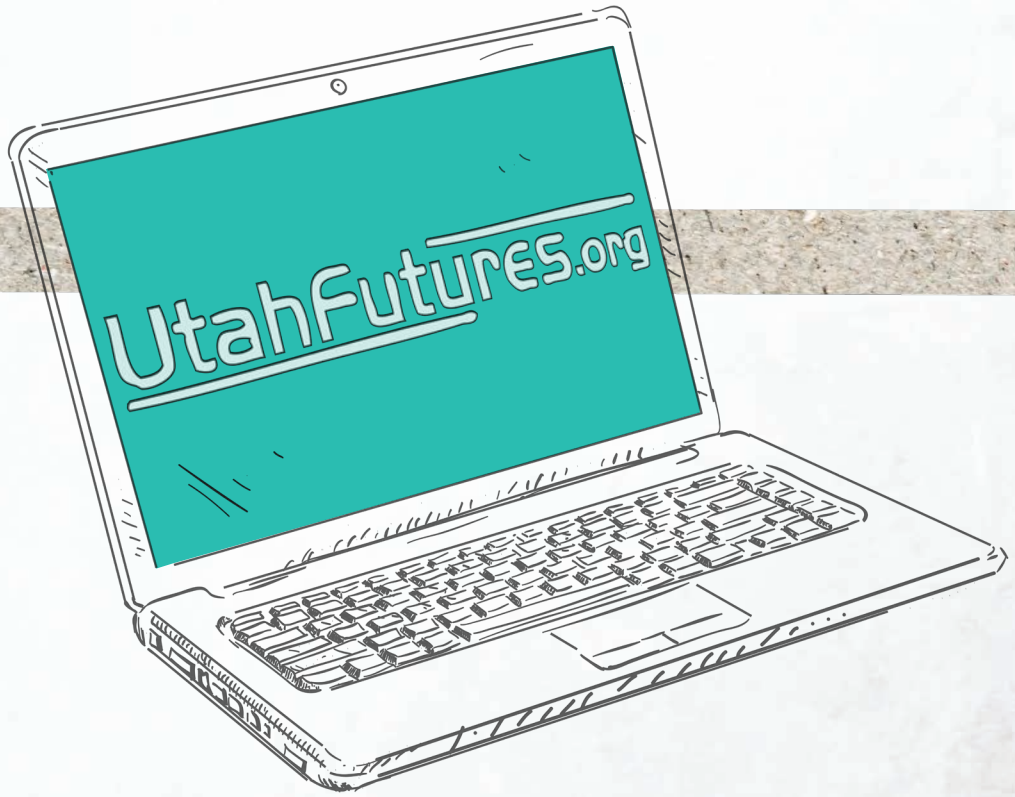
Why College?

College can make you live longer. T or F

True. On average, better-educated people live longer and enjoy healthier lives.

TRUE STORIES FROM A NURSE SUPERHERO

"I've always enjoyed helping people. So when it came time to decide what I wanted to do with my life, going to school to become a nurse was an easy choice. Now, I'm living my dream. Sometimes that means using quick thinking when a patient comes in, injuries uncertain and vitals unknown. Other times it means being a caring and calming influence on patients and their loved ones when they're facing major turmoil. I wouldn't trade my education for the world."



What is UtahFutures?

UtahFutures.org is Utah's one-stop shop for students to make education and career plans online. Students manage their plan to be college and career ready using UtahFutures.org in middle school and beyond. Online access makes it easy for parents to get involved.

Discover Interests and Aptitudes

Online assessments help students explore interests, work values, personality traits, learning styles, leadership strengths, talents and more.

Why should I use it?

UtahFutures helps students prepare for at least one year of postsecondary education. Users get clear information about requirements, earning power and job availability for thousands of careers. Find out about postsecondary education in Utah and all over the country. Learn about prerequisites, course offerings, and program requirements. Discover financial aid and scholarship opportunities.

How to Get Started

Increase your efficiency and improve your education and career planning. Here are two ways to get started:

1. **Log into www.UtahFutures.org with your State Student Identification Number (SSID) to begin building your academic and career portfolio.**
2. **Use the 'Browse UtahFutures.org' link on the home page.**

Investigate What to Study

Take a Practice Test

Discover Career Interests

Seek Adult Education

Compare Colleges and Universities

UtahFutures.org

Review Tips for Getting and Keeping the Career

Write Your Resume

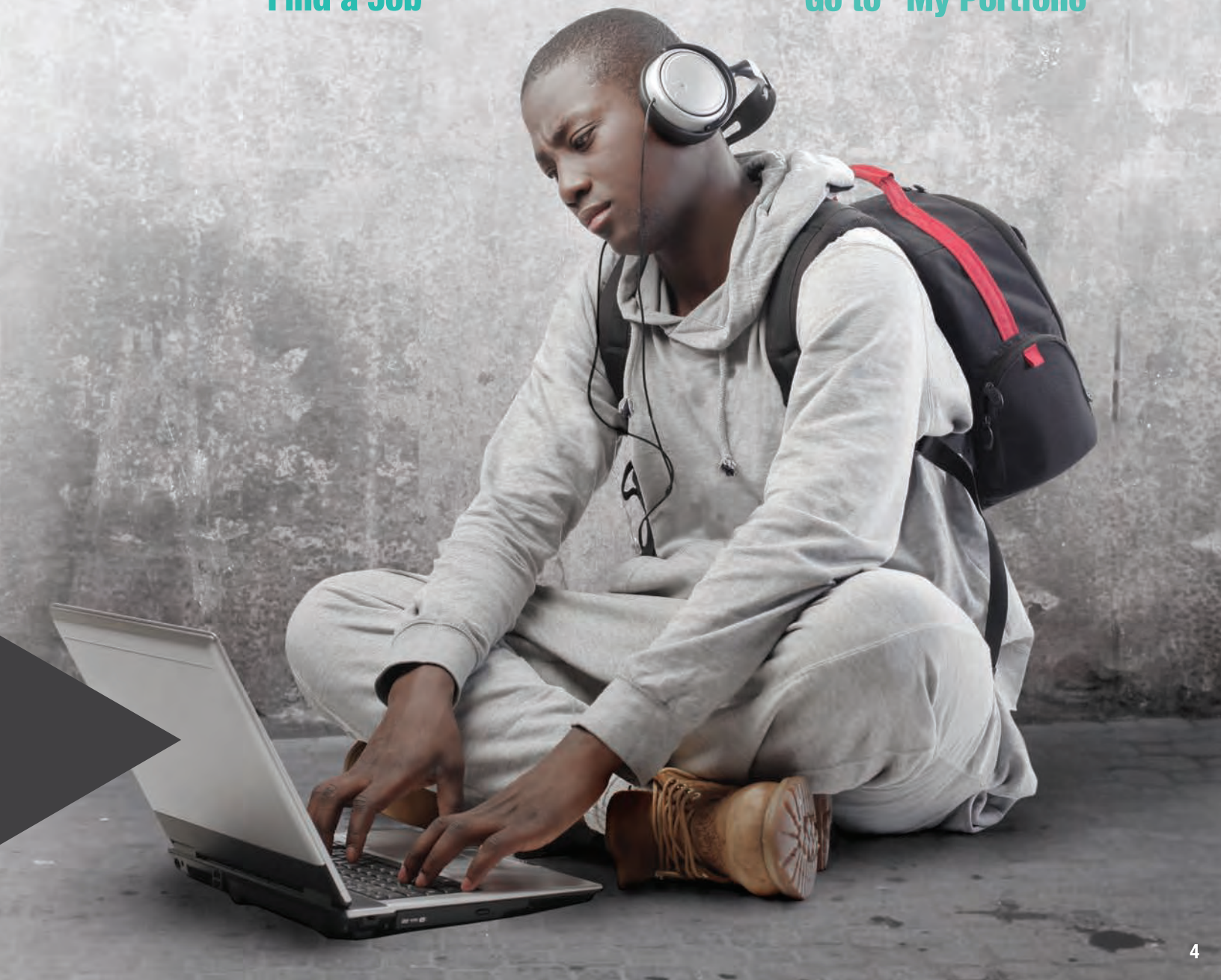
Pay for School

Match Your Lifestyle to a Career

Explore Career and Technical Education

Find a Job

Go to 'My Portfolio'



UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds

UTAH STATE OFFICE OF EDUCATION

College and Career Readiness Recommendations to High School Students

The Utah State Board of Regents and the Utah State Board of Education believe all students should have education and career goals that will prepare them to experience fulfilling lives, actively participate as educated citizens, and thrive in a particularly competitive and global marketplace. A college- and career-ready student is prepared to succeed in college and in postsecondary workforce training programs. The following are joint recommendations for students to be college- and career-ready:

To Be Ready for College and Careers, Students Should…

1 Build an Academic Foundation:

- Take challenging classes in high school to develop an understanding of different subjects and a solid academic preparation for college-level courses. See College and Career Readiness Pathway suggestions on the next page.
- Take Advanced Placement (AP), International Baccalaureate (IB), or Concurrent Enrollment (CE) classes that lead to college credit and provide direct experience in college-level studies. Select Concurrent Enrollment classes that apply to general education, a certificate, or a degree that fits your educational plans.

2 Develop Intellectual and Career Capacity:

- Select courses in high school that challenge the intellect and develop critical thinking, analysis, and problem-solving strategies.
- Practice creative problem solving, increase written and oral communication and teamwork skills and become technology proficient.
- Establish time management and study habits to prepare for the greater amount of independent work required in college.

3 Evaluate Progress for College:

- Do the very best academic work possible in every class taken from middle school through the senior year of high school.
- Speak with a counselor about your course choices; ask for advice on enhancing college readiness skills.
- Throughout the middle and high school years, use external methods (such as the EXPLORE, PLAN and ACT sequence of tests, or Accuplacer) to determine how close you are to being ready for college.
- Adjust study habits and school course choices appropriately to address weaknesses and stay on track.

4 Explore Postsecondary Options:

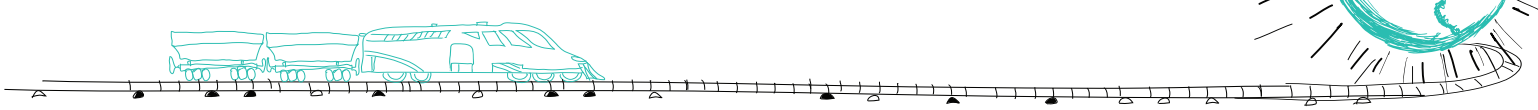
- Visit at least one college campus; take a guided tour and ask questions.
- Learn how much college costs. Submit the Free Application for Federal Student Aid (FAFSA) by the priority deadline. Ask a financial aid advisor about scholarships, grants, loans, and work study.
- Complete the steps necessary for college entry: take a college entrance exam (ACT or SAT) and submit an admission application by the priority deadline.

Need to Know Info

HIGH SCHOOL COURSE SELECTION RECOMMENDATIONS

	High School Graduation*	College and Career Readiness Pathways		Regents' Scholarship
	State Graduation Requirements (effective Fall 2011)	**1- & 2-Year Certificate and Degree Pathway**	**2-Year Transfer and 4-Year Degree Pathway**	**Course Requirements****
English/ Language Arts	4.0 credits	Concentrate on developing technical reading, writing and research skills	Concentrate on developing reading, writing and research skills	4.0 credits of English
Mathematics	3.0 credits 1.0 credit Algebra I 1.0 credit Geometry 1.0 credit Algebra II Mathematics course titles changed to Common Core Mathematics titles for 9th graders in Fall 2011	Take required Mathematics courses and focus on the application of math concepts related to the chosen career goal in your Student Education Occupation Plan (SEOP)	Take a Mathematics class in the senior year. Students interested in STEM degrees should take at least one Mathematics course beyond Algebra II	4.0 credits of progressive Mathematics At minimum a student must complete Algebra I, Geometry, Algebra II and one additional progressive course or completed the Secondary Math 1, 2, 3 and one additional progressive course
Science	3.0 credits 2.0 credits from the four science foundation areas: Earth Systems, Biological Science, Chemistry, or Physics 1.0 credit from the foundation courses or the Applied or Advanced Foundation science core list	Three credits of Science will prepare you for college. Choose foundation, applied, or advanced courses aligned with your SEOP goal	Three credits of Science will prepare you for college. Choose foundation, applied, or advanced courses aligned with your SEOP goal. Students interested in STEM degrees should take 4 credits of Science	3.0 credits of lab-based Science courses to include one each of Biology, Chemistry and Physics
Social Science/ Social Studies	3.0 credits 1.0 credit U.S. History 0.5 credit Geography 0.5 credit World Civilization 0.5 credit U.S. Government and Citizenship 0.5 credit General Financial Literacy	Select Social Studies classes that provide a strong academic foundation but also enable you to explore a variety of career paths	Select Social Studies classes that provide the strong academic foundation but also enable you to explore a variety of career paths	3.5 credits of Social Science
Directed Coursework	3.0 credits 1.5 credits Fine Arts 1.0 credit Career and Technical Education 0.5 credit Computer Tech	Choose electives that concentrate on a pathway that meets your high school graduation requirements and provides depth (two or more courses) in an area of interest	Choose directed coursework associated with your career path. CTE and fine arts courses allow you to explore these areas. Take a challenging computer technology course to prepare for college-level projects	
Physical Education/ Health	2.0 credits	Build a foundation for a healthy lifestyle that is key to college and career success	Build a foundation for a healthy lifestyle that is key to college and career success	
Required Electives	6.0 credits	Select electives that focus on your SEOP goal and chosen Pathway	Take challenging courses through the senior year	
World Languages			Recommend 2.0 years of the same World Language, other than English, in a progressive manner during grades 6-12	Require 2.0 credits of the same World Language, other than English, taken in a progressive manner during grades 9-12
District Requirements	Varies by District	Meet your district's requirements for graduation	Meet your district's requirements for graduation	Meet your district's requirements for graduation

** For more information on Utah High School Graduation Requirements, visit http://schools.utah.gov/curr/gradinfo/*
*** For list of courses that satisfy Regents' Scholarship requirements, see http://www.higheredutah.org/scholarship_info/regents-scholarship/*
See UtahFutures.org and college and university websites for additional financial aid and scholarship information.



College Terms Intro:

Accuplacer – The purpose of ACCUPLACER tests is to provide you with useful information about your academic skills in math, English, and reading. The results of the assessment, in conjunction with your academic background, goals, and interests, are used by academic advisors to determine your course selection. You cannot "pass" or "fail" the placement tests, but it is very important that you do your very best on these tests so that you will have an accurate measure of your academic skills.

American College Testing Program (ACT) – A four-part examination designed to measure a student's scholastic development. The test covers English, mathematics, social studies, and natural sciences. Many colleges require students to take this test or the SAT and submit their test scores when they apply for admission. It is recommended that students take the ACT or the SAT during their junior year in high school and then again as a senior.

Admissions & Scholarship Index – Admissions and scholarship decisions can be based on an index of GPA and ACT scores at some of our institutions of higher education. The score may also be used for placement. For more information please contact the institution of your choice to determine if this is applicable.

Advanced Placement Program (AP) – A service of the College Board that provides high schools with course descriptions in college subjects and Advanced Placement Examinations in those subjects. High schools teach the courses and give the examinations to interested students. Those who pass the exams are eligible for advanced placement, college credit, or both.

Applied Technology College (ATC) – A college that prepares technically-skilled workers in specific occupations that generally do not require an associate or more advanced degree. ATC students can earn certificates that prepare them directly for employment in a few months to a little more than a year. Most ATC programs admit all who apply. High school students enroll tuition-free and receive high school credit while qualifying for technical skills.

Applied Associate's Degree (A.A.S.) – Two-year programs that provide broader knowledge in fields ranging from Biomanufacturing and Computer Information Systems to Dental Hygiene and Digital Media. The in-depth knowledge and skills acquired in an Associate of Applied Science (A.A.S.) degree prepare students for employment in a career track with advancement opportunities.

Bachelor's Degree (B.A., B.S.) – Four-year programs that provide in-depth, specialized knowledge in a major or field of study. Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degrees prepare students either for employment in fields from Accounting to Theatre, or for further studies.

Career Assessment Inventory (CAI) – An assessment test given to students to direct them toward occupations that may be of interest. In the Assessment Link component of UtahFutures.org, a list of occupations of interest can be generated from the student's CAI scores.

Certificate – Generally one-year programs that lead directly to entry level employment in a specific occupation such as aviation pilot, diesel mechanic, or respiratory therapist.

College and Career Plan (SEOP) – Individual student planning consists of school counselors coordinating ongoing systemic activities designed to help individual students establish personal goals and develop future plans. School counselors coordinate activities that help all students plan, monitor and manage their own learning as well as meet competencies in the areas of academic/learning development, life career development, multicultural/global citizen development and personal/social development.

Community College – A two-year college serves the residents of a local or regional area. Most of these colleges admit all or most of the students who apply. Some programs, such as nursing, may be more selective. Students receive an associate degree after two years of successful full-time study. Additionally, many technical programs of study are taught at these colleges. Many students who enter general education programs (equivalent to the first two years of a baccalaureate degree program) transfer to a four-year college or university.

Concurrent Enrollment (CE) – The concurrent enrollment program makes college courses available to eligible high school students during their junior and senior years. Students earn both high school credit and regular college credit which is recorded on a college transcript.

Credit Hour – A unit used to measure the amount of school work a student has enrolled for or completed. In a credit hour system, each course is assigned a specific number of credit hours. This number is usually based on the number of classroom meetings per week. Thus a course that meets for one hour on Monday, Wednesday, and Friday is a three credit hour course.

Doctorate Degree – Provides further training in a more specialized area, in occupations similar to master's or professional degrees.

Expected Family Contribution (EFC) – The amount a student and his or her family are expected to pay toward the cost of attendance. It is calculated from the financial information provided by the student and his or her family, including the student's spouse, if applicable.

Federal Work-Study Program – A federally funded part-time employment program for undergraduate and graduate students. Eligibility is based on financial need. The earnings help students meet a portion of their educational expenses. The federal government subsidizes a portion of the student's salary. This makes it cheaper for employers to hire students who have demonstrated financial need.

FERPA – The Family Educational Rights and Privacy Act is a federal privacy law that gives parents certain protections with regard to their children's education records, such as report cards, transcripts, disciplinary records, contact and family information, and class schedules. Parents, have the right to review their child's education records and to request changes under limited circumstances. To protect a child's privacy, the law generally requires schools to ask for written consent before disclosing their personally identifiable information to individuals other than the child.

When a student turns 18 years old or enters a postsecondary institution at any age, all rights afforded to the parents under FERPA transfer to the student ("eligible student"). However, FERPA provides ways in which a school may—but is not required to—share information from an eligible student's education records with parents, without the student's consent.

Don't Get Lost in Translation

Financial Aid – Money awarded to students to help them pay for education. Aid is given as loans, grants, scholarships, or work-study. Some forms of financial aid are required to be repaid after graduation.

Financial Need – The difference between the cost of attendance and the student's expected family contribution.

FAFSA – The Free Application for Federal Student Aid is a free financial aid application form used to determine eligibility for need-based federal financial aid. Applications are accepted after January 1. Early application is strongly encouraged. Students should apply during their senior year. Visit www.FAFSA.gov.

Grant – A form of financial aid that does not have to be repaid or earned by working. Grants are usually based on financial need; however, academic merit may also be considered.

Master's or Professional Degree – Programs offered at a postgraduate level, usually after earning a bachelor's degree or relevant work experience. Master's degrees prepare students for occupations that include education, engineering, or business.

Merit-based – Financial aid that is dependent on academic, artistic, or athletic merit. This type of aid does not require demonstration of financial need.

Need-based – Financial aid that is dependent on demonstration of financial need. Most sources of financial aid that are provided by the government are need-based.

New Century Scholarship – The New Century Scholarship encourages students to accelerate their education by earning an Associate's degree in high school from an institution within the Utah System of Higher Education. The scholarship may be used at a four-year public college or university within the Utah System of Higher Education, as well as at Brigham Young University-Provo and Westminster College. For detailed information, please visit www.higheredutah.org and click on "Scholarships."

Open Admissions – The college admissions policy of admitting virtually all applicants with high school diplomas or their equivalent. Conventional academic qualifications, such as high school subjects taken, high school grades, and admissions test scores are not used to limit enrollment, however can affect placement.

Pell-Grant – Money awarded directly to students by the federal government. Only undergraduate students may receive federal Pell Grants. To apply for a federal Pell Grant and other federal financial aid, fill out the Free Application for Federal Student Aid (FAFSA) at www.FAFSA.gov.

PSAT – The Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT) is a program cosponsored by the College Board and National Merit Scholarship Corporation (NMSC). It's a standardized test that provides first-hand practice for the SAT. It also gives you a chance to enter NMSC scholarship programs and gain access to college and career planning tools.

Regents' Scholarship – The Regents' Scholarship encourages Utah high school students to prepare for college academically and financially by taking a core course of study and saving for college. The scholarship may be used at any public college or university in the Utah System of Higher Education, as well as at Brigham Young University-Provo, LDS Business College, and Westminster College. For detailed information, please visit www.higheredutah.org and click on "Scholarships".

Rolling Admissions – An admissions procedure by which the college evaluates applicants on a first-come, first-served basis. Applicants are screened as soon as they submit all application materials. The college may consider applications on a weekly or monthly schedule. Applicants receive a notice of the decision a short time after application.

Scholarship – A form of financial aid that does not have to be repaid or earned through employment. Scholarship usually refers to an award based on academic merit; however, scholarships are also awarded for performing community service, leadership, talent, etc. Financial need may also be required. The UtahFutures.org Scholarship Search component includes descriptions of many hundreds of financial assistance sources.

Scholastic Aptitude Test (SAT) – The SAT is a globally recognized college admission test that lets you show colleges what you know and how well you can apply that knowledge. It tests your knowledge of reading, writing and math — subjects that are taught every day in high school classrooms. Most students take the SAT during their junior or senior year of high school, colleges and universities require students to take this test or the ACT prior to applying for admission.

Semester – An academic calendar period of about 18 weeks that makes up half of the usual academic year for schools that use this calendar system.

Subsidized Loan – A need-based loan, such as a Direct Subsidized Stafford. The federal government pays the interest on subsidized loans during the borrower's in-school, grace, and deferment periods.

Transcript – An official copy of a student's educational record.

Transfer Associate's Degree (A.A., A.S.) – Two-year programs that provide the academic foundation for transfer to a four-year bachelor's degree program. Associate's of Arts (A.A.) and Associate's of Science (A.S.) programs cover the curriculum taught in the first two years of a four-year program of study.

Tuition – The charge for attending a college or university class.

University – An institution of higher learning that offers both undergraduate (associate's and bachelor's) and graduate (master's and doctoral) programs. Universities vary considerably in programs offered and in size. Compared to colleges, universities are usually larger, offer more courses and majors, and have more research facilities. Universities may be divided into a number of "colleges," such as the College of Education or the College of Business. Each college has several departments, and each department may offer more than one major.

UtahFutures.org – A one-stop shop for people to explore and organize training, education and career information.

Dream Factories,

Facts at a Glance

Institutions	Fall 2011 Enrollment	Educational Offerings: Certificates	AAS	AS/AA	BS/BA	Masters	PhD/ Prof.
Brigham Young University www.byu.edu 801-422-5000	29,878				●	●	●
Dixie State College of Utah www.dixie.edu 435-652-7590	9,086	●	●	●	●		
LDS Business College www.ldsbc.edu 801-524-8145	2,000	●	●	●			
Salt Lake Community College www.slcc.edu 801-957-4111	33,167	●	●	●			
Snow College www.snow.edu 1-800-848-3399	4,368	●	●	●			
Southern Utah University www.suu.edu 435-586-7700	7,750	●	●	●	●	●	
University of Utah www.utah.edu 801-581-7200	31,600				●	●	●
Utah College of Applied Technology www.ucat.edu	41,492 (a)	●					
Utah State University www.usu.edu 800-488-8108	28,994	●	●	●	●	●	●
Utah State University-College of Eastern Utah www.eastern.usu.edu 800-336-2381	2,324	●	●	●	●	●	●
Utah Valley University www.uvu.edu 801-863-4636	33,395	●	●	●	●	●	
Weber State University www.weber.edu 801-626-6050	25,483	●	●	●	●	●	
Westminster College www.westminstercollege.edu 801-832-2200 800-748-4753	3,000	●			●	●	

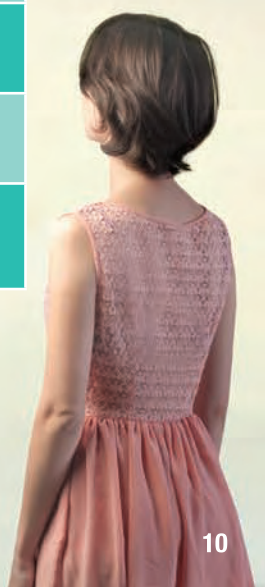
(a) Enrollment figure for UCAT is for full year due to open-entry/open-exit enrollment

Close to Home

Fall Admission Deadline/App Fee	Scholarship Application Deadline	12-13 Tuition & Fees for 1 year (based on 15 credit hours per semester)	Avg Annual On-Campus Housing	Avg On-Campus Meal Plan Cost for 1 year (19 meals/wk)	Financial Aid Priority Deadline
Priority *(freshmen only)* 12/1 Regular 2/1 $35	February 1	$4,710 LDS $9,420 Non-LDS	$3,309	$2,450	May 1
Open $35	March 1	$4,089 Resident $11,721 Non-Resident	$1,900	$2,500	March 1
10 days prior to semester $35	March 1	$3,060 LDS $6,120 Non-LDS	N/A	N/A	July 1
August 17 (Credit programs only) $40	March 1	$3,170 Resident $10,012 Non-Resident $1,470 Apprenticeship	N/A	N/A	April 15
Open $30	February 1	$3,086 Resident $10,230 Non-Resident	$1,900	$1,800	June 1
May 1 $45	Priority Dec 1 February 1	$5,576 Resident $16,984 Non-Resident	$3,200	$3,580	July 1
Priority 12/1 Regular 4/1 $45	February 1	$6,763 Resident $21,389 Non-Resident	$3,396	$3,303	April 1
Year-Round	Year-Round	Utah HS Students $0 Adults $1.70/clock hr Fees may apply	N/A	N/A	Year-Round
April 1 $40	Priority Dec 1	$5,931 Resident $17,077 Non-Resident	$2,500	$3,250	March 15
Open $25	March 1	$3,070 Resident $5,691 Non-Resident	$2,000	$1,900	March 1
August 15 $35	First Priority February 1	$4,288 Resident $11,630 Non-Resident	N/A	N/A	May 1
Open $30	Priority: January 14 Transfer Students: March 1	$4,761 Resident $12,858 Non-Resident	$3,200	$2,633	March 1
Rolling $50	Priority 3/1 Exemplary Achievement Award 2/15	$28,210 Average Freshmen Aid = $23,700	$4,546	$3,344	April 15

CONFESSIONS OF AN ARCHITECT

"Since I was a little kid, I always liked to draw. And throughout school, my notebooks were covered with sketches. With a love for art and science, I decided to go to school to become an architect. Some days when I'm drawing a preliminary sketch in front of a client, I still can't believe I get to essentially draw for a living."



College & University *Spotlights*

Want a large, flat-screen TV? Y or N

If you said yes, you're in luck. A college graduate's earnings will get you that flat screen TV two times faster than a non-college grad.

Brigham Young University

Brigham Young University seeks to develop students of faith, intellect and character who have the skills and the desire to continue learning and to serve others throughout their lives. Established in 1875, the university provides an outstanding education in an atmosphere consistent with the ideals and principles of its sponsor, The Church of Jesus Christ of Latter-day Saints. Recognized for its strong academic programs, BYU is known for its intellectually minded and internationally experienced student body, world-class teaching and Division I athletic teams.

Take a Tour
We'll arrange a personal tour for you—contact us one to two weeks in advance to schedule a visit at 801-422-4431.

How to Apply
Submit an admission application at BeSmart.com
Deadline: Priority *(freshmen only)* - December 1, Final - February 1.
Telephone: 801-422-2507

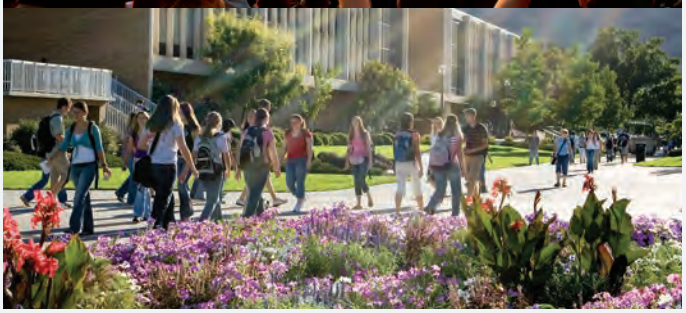
Tuition and Fees *(2 Semesters)*
$4,710 *(LDS)*
$9,420 *(Non-LDS)*

Financial Aid
Direct link to application: www.fafsa.ed.gov
Deadline: May 1st
Telephone: 801-422-4104

Get in Touch
Visit www.b4byu.com or call 801-422-5000

Fun Fact
Nearly 70 percent of BYU students speak a second language.

Mascot
Cosmo the Cougar



Dixie State College

As the fastest growing school in Utah, Dixie State College is an open enrollment institution, providing small class sizes with passionate faculty and staff members who strive to make the student experience memorable. DSC offers more than 30 baccalaureate degree programs, along with associate degree and certificate programs which meet the needs of students, the community and the state. With the lowest tuition in the state for four-year institutions, DSC provides an affordable educational opportunity in the picturesque red rocks of St. George.

Take a Tour
Tours are offered Monday through Friday, and Saturdays, by appointment. Call today 435-652-7590.

How to Apply
Submit an admission application at http://explore.dixie.edu
Deadline: None
Telephone: 435-652-7590

Tuition and Fees *(2 Semesters)*
$4,089 *(Resident)*
$11,721 *(Non-Resident)*

Financial Aid
Direct link to application: www.dixie.edu/financial
Deadline: None – Apply as soon as possible
Telephone: 435-652-7575

Get in Touch
Visit www.dixie.edu or call 435-652-7590

Fun Fact
300+ days of sunshine and average temperature 70°!

Mascot
Red Storm/Big Dee

LDS Business College

LDS Business College specializes in training students for the job market. Graduates have a high job placement rate—most find jobs within six months of graduation. Students learn in a personalized setting with an average of 24 students per class. Learning is enhanced by a rich, spiritual environment, weekly devotionals, and Institute of Religion courses. Temple Square, Gateway and City Creek Malls, and major entertainment and sporting events are within walking distance of campus. The College's 2,000 students come from every state and more than 70 countries worldwide.

Take a Tour
Campus tours are offered Monday through Friday, at 10:00 a.m. and 3:00 p.m. or by appointment.
Call 801-524-8159 or email tours@ldsbc.edu to schedule your personal tour.

How to Apply
Submit an admission application at BeSmart.com
Deadline: 10 days before class begins
Telephone: 801-524-8145

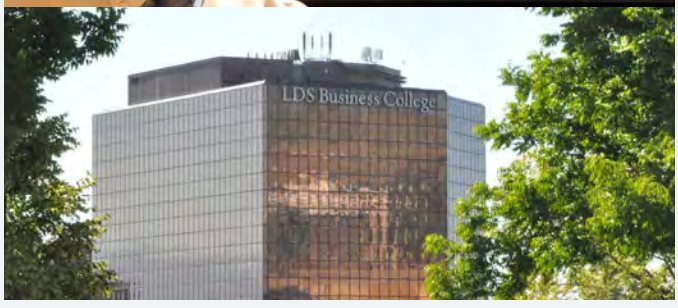
Tuition and Fees *(2 Semesters)*
$3,060 *(LDS)*
$6,120 *(Non-LDS)*

Financial Aid
Direct link to application: www.fafsa.gov
Deadline: Rolling
Telephone: 801-524-8111

Get in Touch
Visit ldsbc.edu or call 801-524-8145

Fun Fact
The College's transfer and integrated studies degrees are accepted at universities throughout the country.

Mascot
Lion



Salt Lake Community College

As Utah's most diverse institution of higher education, SLCC is an open access, comprehensive community college. Offering a full range of academic programs and economic development opportunities, the College specializes in career and technical education as well as general education for transfer to 4-year universities. There is strong emphasis on small class sizes with support for each student. The College preserves its personal feel by maintaining a student to faculty ratio of 20:1. SLCC combines high value and affordability with quality education. Scholarships and financial aid for students who qualify provides student access. The College ranks 4th in the nation in the number of associate degrees awarded.

Take a Tour
We offer campus tours year round and are glad to schedule an individual campus visit to answer your questions. For more details, please call 801-957-4543.

How to Apply
Submit an admission application at www.slcc.edu
Deadline: August 17
Telephone: 801-957-4543

Tuition and Fees *(2 Semesters)*
$3,170 *(Resident)*
$10,012 *(Non-Resident)*
$1,470 *(Apprenticeship)*

Financial Aid
Direct link to application:
http://www.slcc.edu/financialaid/index.asp
Deadline: April 15
Telephone: 801-957-4410

Get in Touch
Visit www.slcc.edu or call 801-957-4111

Fun Fact
Salt Lake Community College has 13 campuses or sites and SLCC Online for convenience and access.

Mascot
Bruin

Snow College

Snow College is the state's premier rural, residential two-year college. It provides traditional college-age students with the opportunity for a higher education experience in a small and personalized campus setting. In addition to providing general education courses, the college provides career and technical education, primarily at its Richfield campus.

Take a Tour
Tours are offered Monday through Friday by appointment. Call today 800-848-3399 or visit www.snow.edu/welcome/visit.html.

How to Apply
Submit an admission application at www.snow.edu. Just click the application link.
Deadline: Open Admission
Telephone: 800-848-3399
Email: snowcollege@snow.edu

Tuition and Fees *(2 Semesters)*
$3,086 *(Resident)*
$10,230 *(Non-Resident)*

Financial Aid
Direct link to application: www.snow.edu/finaid
Deadline: June 1
Telephone: 435-283-7130

Get in Touch
Visit www.snow.edu or call 800-848-3399

Fun Fact
Snow has a direct partnership with Julliard School of Music, Theatre, and Dance and is an All-Steinway School.

Mascot
Badger

SNOW COLLEGE

Southern Utah University

As the state's designated liberal arts and sciences university, Southern Utah University (SUU) provides a broad-based, engaged college experience for students of high academic achievement, stressing experiential, integrative and personalized learning in a residential setting. The University serves the entire state while maintaining varied programs to meet unique regional needs and interests.

Take a Tour
Tours are offered Monday through Friday. Call us at 435-586-7741 or visit www.suu.edu/campustour.

How to Apply
Submit an application for admission at www.suu.edu/belong
Deadline: May 1
Telephone: 435-586-7740
Email: adminfo@suu.edu

Tuition and Fees *(2 Semesters)*
$5,576 *(Resident)*
$16,984 *(Non-Resident)*

Financial Aid
Direct link to application: http://www.suu.edu/ss/financial/FinancialAidForms.html
Deadline: July 1
Telephone: 435-586-7735

Get in Touch
Visit www.suu.edu or call 435-586-7700

Fun Fact
SUU graduates enjoy a 90% or higher acceptance rate into law, medical, dental, veterinary, physician's assistant, optometry and physical therapy schools.

Mascot
Thunderbirds

SUU SOUTHERN UTAH UNIVERSITY

University of Utah

The University of Utah, located in Salt Lake City in the foothills of the Wasatch Range, is the flagship institution of higher learning in Utah. Founded in 1850, it serves more than 31,000 students from across the United States and the world. With more than 72 major subjects at the undergraduate level and more than 90 major fields of study at the graduate level, including law and medicine, the university prepares students to live and compete in the global workplace. The University of Utah is proud member of the Pac-12 Athletic Conference.

Take a Tour
Visit www.getconnected.utah.edu or
call 801-581-8761 or 800-685-8856.

How to Apply
Submit an admission application at
admissions.utah.edu/apply
Deadline: Priority December 1, Regular April 1
Telephone: 801-581-7281

Tuition and Fees *(2 Semesters)*
$6,016 *(Resident)*
$18,971 *(Non-Resident)*

Financial Aid
Direct link to application: financialaid.utah.edu
Deadline: December 1 *(Honors and Presidential) and*
February 1 *(Leadership and Diversity)*
Telephone: 801-581-6211

Get in Touch
Visit www.utah.edu or call 801-581-7200

Fun Fact
Our student body comes from all 29 Utah counties, all 50 states, and more than 111 foreign countries.

Mascot
Swoop

THE UNIVERSITY OF UTAH

Utah College of Applied Technology

UCAT is Utah's system of eight regional "applied technology colleges" (ATCs). The ATCs offer 291 accredited certificates preparing students for a variety of technical fields. In as little as 3-24 months you will gain the skills you need to become employed in a great job. Many programs also articulate to associate degrees at other colleges and universities. High school students attend tuition-free and adults pay just $1.70 per hour. Financial aid is available to those who qualify. You can enroll anytime and classes are taught in a self-paced, hands-on environment.

Bridgerland ATC (Logan/Brigham City)
Visit www.batc.edu • Call 435-753-6780

Davis ATC (Kaysville)
Visit www.datc.edu • Call 877-815-DATC (3282)

Dixie ATC (St. George)
Visit www.dxatc.edu • Call 435-674-8400

Mountainland ATC (Lehi/Orem/Sp.Fork)
Visit www.mlatc.edu • Call 801-753-MATC (6282)

Ogden-Weber ATC (Ogden)
Visit www.owatc.edu • Call 801-627-8300

Southwest ATC (Cedar City/Kanab)
Visit www.swatc.edu • Call 435-586-2899

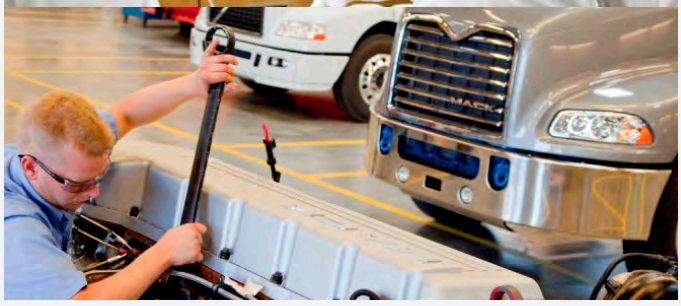
Tooele ATC (Tooele)
Visit www.tatc.edu • Call 435-248-1800

Uintah Basin ATC (Roosevelt/Vernal)
Visit www.ubatc.edu • Call 435-722-6900

UCAT Statewide
Visit www.ucat.edu • Call 801-955-2170

Fun Fact
Nearly 1,000 local employer representatives advise UCAT's 291 certificate programs, ensuring that students get the skills they need to go to work.

UTAH COLLEGE of APPLIED TECHNOLOGY



Utah State University

What is an Aggie? There have been over 180,000 graduates from USU which means there are 180,000 different definitions of an Aggie. At Utah State University, you'll be pushed to be better, to go further, to participate and to lead. USU offers the complete package: renowned faculty, outstanding students, undergraduate research, Division 1 NCAA Athletics, all at the largest residential campus in the state. It's more than a Logan campus; USU is a statewide system with five campuses from Brigham City to Blanding. It's big-school opportunities with a small-school feel and it's all for a great value. USU is a top-tier research institution, and Aggies have more Carnegie Professors of the Year than anyone in Utah. Of the many Aggie definitions, they're all made of experiences: late nights studying, hands-on learning, early mornings across the Quad, and even riding down Old Main Hill. Come be an Aggie!

Take a Tour
Visit www.usu.edu/campustour or call 800-488-8108

How to Apply
Submit an admission application at
www.usu.edu/admissions/applyonline
Deadline: April 1 (fall semester), October 1
(spring semester), April 1 (summer semester)
Telephone: 800-488-8108 or 435-797-1079
Email: admit@usu.edu

Tuition and Fees *(2 Semesters – 12 credits)*
$5,212 *(Resident)*
$15,006 *(Non-Resident)*

Financial Aid
Direct link to application:www.usu.edu/finaid/applying
Deadline:July 1 (fall semester), November 1
(spring semester), April 1 (summer semester)
Telephone: 435-797-0173

Get in Touch
Visit www.usu.edu or call 800-488-8108

Fun Fact
USU offers more than 168 undergraduate degrees and 143 graduate degrees.

Mascot
Big Blue the Aggie Bull

Utah State University-College of Eastern Utah

USU Eastern is ranked 3rd in the nation for success in helping students graduate or transfer into four-year universities. It is a comprehensive regional college (community college offerings plus selected baccalaureate and graduate degrees) and a part of nationally ranked Utah State University. USU Eastern offers the lowest tuition in the state with a proven track record of helping students transition from underprepared to prepared and to upper-division readiness.
With campuses in Price and Blanding, the USU Eastern side of the state is the least crowded. That gives students the space they need to discover the very best in themselves -- because the side that matters the most at USU Eastern, is what happens on the inside.

Take a Tour
Visit www.tours.ceu.edu or call 1-800-336-CEU1

How to Apply
Submit an admission application at www.apply.ceu.edu
Deadline: Open Enrollment
Telephone: 800-336-2381 ext. 5226 or 435-613-5226
Email: admissions@ceu.edu

Tuition and Fees *(2 Semesters)*
$3,070 *(Resident)*
$5,691 *(Non-Resident)*

Financial Aid
Direct link to application: www.fafsa.gov
Deadline: There is no deadline
Telephone: 435-613-5323

Get in Touch
Visit www.eastern.usu.edu or call 800-336-2381

Fun Fact
USU Eastern is home of a world-class dinosaur museum with skeletal mounts discovered right in Eastern Utah.

Mascot
Golden Eagle

Utah Valley University

As a teaching university dedicated to student success, Utah Valley University offers professional certificates and diplomas, more than 120 associate and baccalaureate degrees and a targeted number of master's degrees for a rapidly increasing number of students with diverse interests and backgrounds. Located in Orem, Utah, between the Wasatch Mountains and Utah Lake, UVU is what the prestigious Carnegie Foundation calls a "community engaged" institution. This means two things: First, UVU students prepare for professional life through "engaged learning," or the integration of academic life and hands-on learning. Second, UVU has a long-standing commitment to serving the needs of the local community.

Take a Tour
Visit www.uvu.edu/futurestudents or call 801-863-8811

How to Apply
Submit an admission application at
www.uvu.edu/admissions
Deadline: August 1
Telephone: 801-863-4636
Email: admissions@uvu.edu

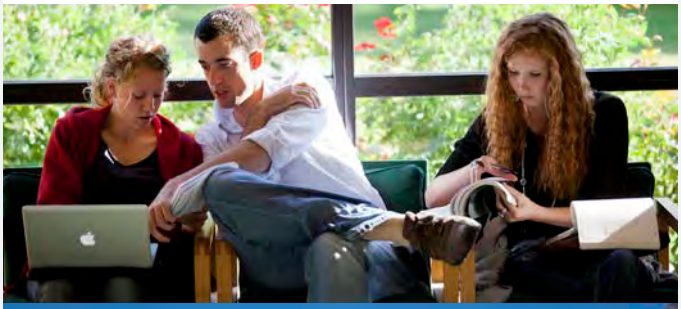
Tuition and Fees *(2 Semesters)*
$4,288 *(Resident)*
$11,630 *(Non-Resident)*

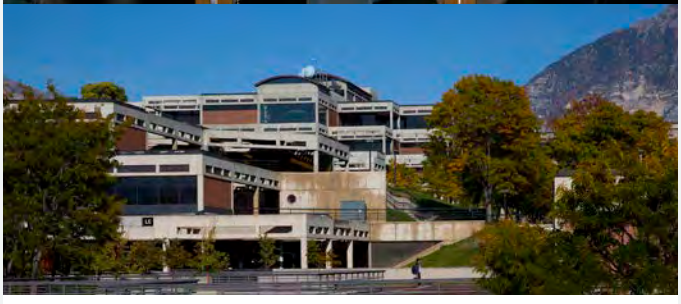
Financial Aid
Direct link to application:
http://www.uvu.edu/financialaid/apply/
Deadline: (This date varies depending on the type of aid)
Telephone: 801-863-8442

Get in Touch
Visit www.uvu.edu or call 801-863-8811

Fun Fact
Built with students in mind, UVU's campus offers indoor walkways between each of the main buildings, a favorite feature during cold winter months.

Mascot
Willy the Wolverine





Weber State University

Weber State University offers a variety of two- and four-year degrees, and multiple graduate programs. A leader in undergraduate education, WSU provides a small-class environment, where students work closely with faculty and participate in undergraduate research and community service opportunities. Outside the classroom, students take part in more than 175 clubs, cheer on 16 NCAA teams, and enjoy cultural and recreational offerings. Combining low tuition with more than $90 million in scholarships and financial aid, WSU is one of the most affordable universities in the West.

Take a Tour
Visit www.getintoweber.com and click "Visit Campus."
Call 801-626-6050 or email admissions@weber.edu.

How to Apply
Submit an admission application
at www.getintoweber.com
Deadline: Open
Telephone: 801-626-6050
Email: admissions@weber.edu

Tuition and Fees *(2 Semesters)*
$4,761 *(Resident)*
$12,858 *(Non-Resident)*

Financial Aid
Direct link to application: www.fafsa.gov
Deadline: March 1
Telephone: 801-626-7569

Get in Touch
Visit www.getintoweber.com or call 801-626-6050

Fun Fact
WSU offers more than 250 undergraduate programs, including the Bachelor of Integrated Studies program, which allows you to create a degree as unique as you.

Mascot
Waldo the Widcat

Westminster College

Westminster is a nationally recognized, comprehensive liberal arts college. With a broad array of graduate and undergraduate programs, Westminster is distinguished by its unique environment for learning. Westminster prepares students for success through active and engaged learning, real-world experiences, and its vibrant campus community. With a beautiful campus located in the Sugar House neighborhood, classes are never more than a five minute walk away. Westminster's unique location, adjacent to the Rocky Mountains and the dynamic city of Salt Lake, further enriches the college experience.

Take a Tour
Visit www.westminstercollege.edu/visit
or call 801-832-2200 or 800-748-4753

How to Apply
Submit an admission application at
www.westminstercollege.edu/apply
Deadline: Rolling Admissions
Telephone: 801-832-2200

Tuition and Fees *(2 Semesters)*
$27,182
($23,700 Average Freshman Aid)

Financial Aid
Direct link to application:
www.westminstercollege.edu/aid
Deadline: Rolling
Telephone: 801-832-2500

Get in Touch
Visit www.westminstercollege.edu/admissions
or call 801-832-2200 or 800-748-4753

Fun Fact
More than 97% of freshmen in 2011-2012 received some form of financial aid, and the average financial aid award totaled $23,700.

Mascot
Griffin

WESTMINSTER

A BIOTECH ENGINEER PAYS IT FORWARD

"I knew the field of biotechnology was growing—rapidly. To me, that means opportunity and job security. Now that I'm out of school, I'm making enough to cover my expenses, enjoy a comfortable lifestyle, and even treat my mom to something fun now and then. It feels great."

College creates smiles. T or F

Utah Educational Savings Plan®

Helping Utah Families Save for College

The Utah Educational Savings Plan (UESP) is Utah's official nonprofit 529 college savings program. Dedicated to helping Utah families save for future college expenses, UESP plays a vital role in making it possible for Utah students to achieve a higher education.

When you save for college with UESP, you may benefit from tax-free earnings and a Utah state income tax credit. In addition, UESP requires no minimum deposits or balances, so you can save a little or a lot, according to your schedule.

Higher education can open the door to more job opportunities and better pay.

Visit uesp.org or call 800.418.2551 to open an account today!

Important Legal Notice

The Utah Educational Savings Plan (UESP) is a Section 529 plan administered and managed by the Utah State Board of Regents and the Utah Higher Education Assistance Authority (UHEAA).

Read the Program Description for more information and consider all investment objectives, risks, charges, and expenses before investing. Call 800.418.2551 for a copy of the Program Description or visit uesp.org.

Investments are not guaranteed by UESP, the Utah State Board of Regents, UHEAA, or any other state or federal agency. However, Federal Deposit Insurance Corporation (FDIC) insurance is provided for the FDIC-insured savings account. Please read the Program Description to learn about the FDIC-insured savings account. Your investment could lose value.

Non-Utah taxpayers and residents: You should determine whether the state in which you or your beneficiary pay taxes or live offers a 529 plan that provides state tax or other benefits not otherwise available to you by investing in UESP. You should consider such state tax treatment and benefits, if any, before investing in UESP.

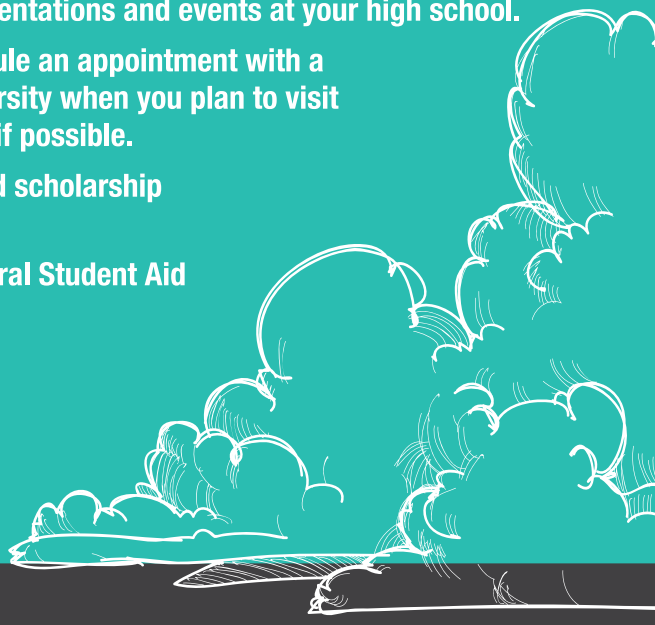
Paying for College is Possible

True. Evidence shows that a college education increases one's sense of life satisfaction or overall happiness.

Getting a college education is an investment that will pay back for a lifetime, so don't let finances stand in your way. There are many resources available to help you afford higher education, and the first step is to become informed.

Here are a few suggestions that will help as you explore your options:

- Pay attention to the financial literacy course you take during your junior or senior year in high school.
- Take advantage of your high school counseling center's resources.
- Actively listen and take part in college presentations and events at your high school.
- Visit the college(s) that interest you. Schedule an appointment with a financial aid advisor at the college or university when you plan to visit and have a parent or guardian go with you if possible.
- Explore the wide variety of financial aid and scholarship information at UtahFutures.org.
- Be sure to file the Free Application for Federal Student Aid at www.FAFSA.gov when you are a senior!



What's Available?

Financial aid is generally available in one of the following types:

Grants – money given to those who qualify based upon financial need, no need for repayment.
Scholarships – money given for education, based on merit, need, and or talent, no need for repayment.
Work-study – money given to a qualified individual in exchange for work.
Loans – money loaned at a favorable rate but must be repaid.

www.stepuputah.com/financial-aid

more info

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: Utah State Board of Regents

FROM: Commissioner David L. Buhler

SUBJECT: UCAP Life Sciences Cluster Acceleration Strategy

Background

Utah is well positioned to be a national leader in the rapidly growing life sciences industry. To ensure its leading role, Utah must accelerate the development of its life sciences cluster. The role of higher education in developing and sustaining a supportive ecosystem to the life sciences cluster is essential because it provides leadership that drives innovation and it educates a workforce to meet the needs and opportunities of the industry. The engagement of Utah's higher education community on behalf of the life sciences industry was through the Utah Cluster Acceleration Partnership (UCAP), which is a collaborative initiative with oversight from the Governor's Office of Economic Development, the Department of Workforce Services, and the Utah System of Higher Education (USHE).

The attached *UCAP Life Sciences Cluster Acceleration Strategy* is a plan of how industry, higher education and other governmental agencies can best position and ensure Utah's life sciences industry for future growth and success. Westminster College and the University of Utah served as this project's co-conveners. The plan will guide institutions of higher education in their mission to be drivers of economic growth in life sciences. The comprehensive cluster acceleration strategy addresses particular needs which higher education can meet; these include improving the alignment of education to the economic needs of the cluster and enhancing university and industry collaboration in applied research. Program development is already underway to fill a particularly acute education gap in regulatory and quality affairs. The assessment of life science talent is found on pages 15 -19 of the attached strategy.

Implementation of the strategy is being led by a committee co-chaired by Jeff Nelson, CEO of Nelson Laboratories, and Dr. Tom Parks, Vice President for Research at the University of Utah. The committee is made up of representatives of the Governor's Office of Economic Development, the Utah System of Higher Education, the Department of Workforce Services, the USTAR Initiative, and other industry and academic partners.

The Life Sciences Cluster Acceleration Strategy is the fourth cluster acceleration strategy developed under the UCAP model. Previous strategies addressed similar topics the energy, digital media, and the aerospace and defense economic clusters.

Commissioner's Recommendation

This item is for informational purposes only; no action required.

David L. Buhler
Commissioner of Higher Education

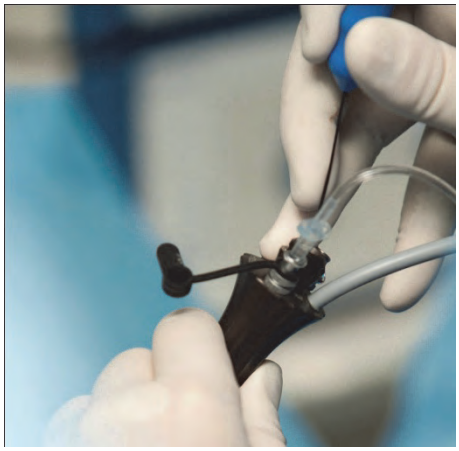
DLB/CKM/JAC
Attachment

ACCELERATING UTAH'S LIFE SCIENCES INDUSTRY

Utah Cluster Acceleration Partnership Summer 2012

Contents

About This Report



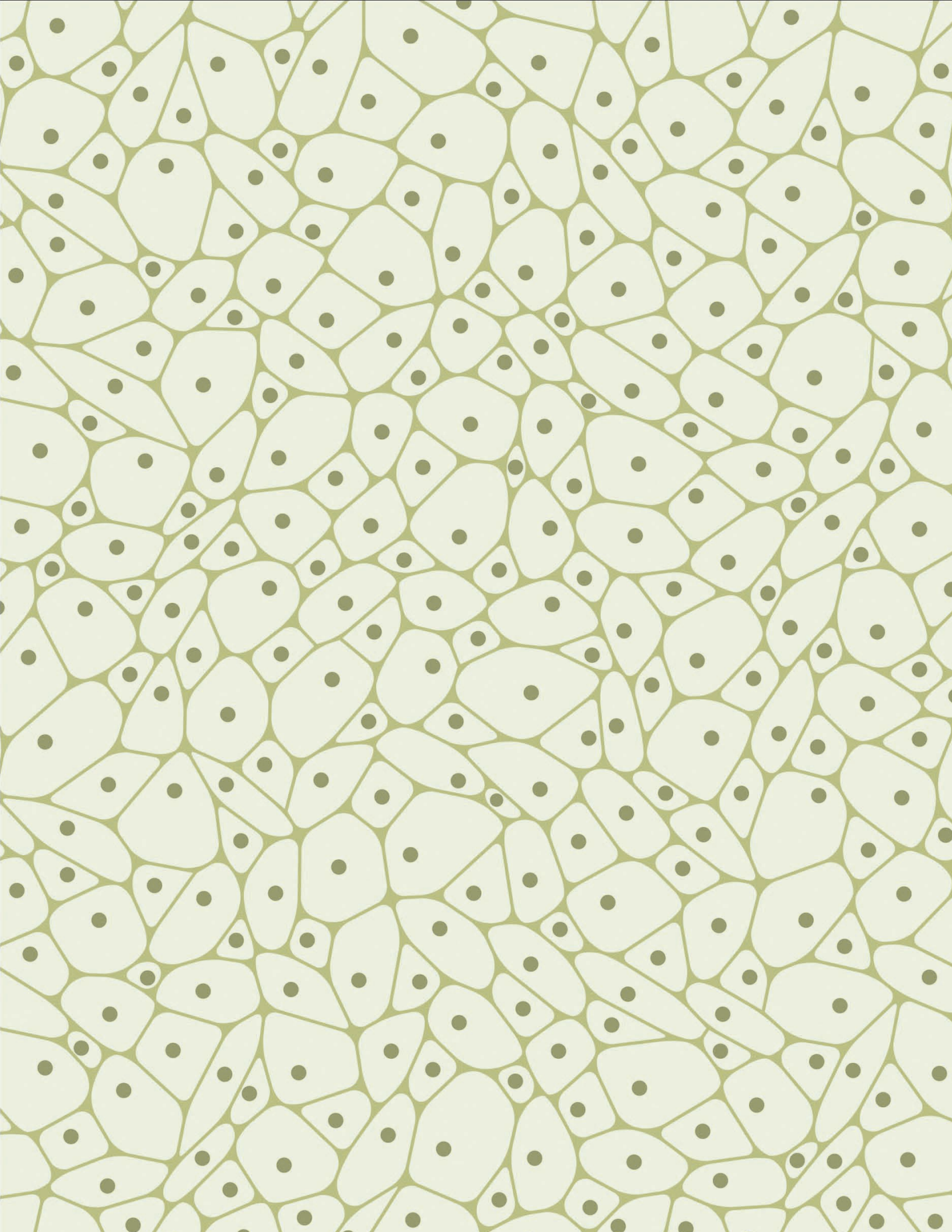
This report presents specific strategies designed to accelerate and support the growth and expansion of Utah's life sciences industry and to ensure that Utah develops and maintains the talent needed to sustain continued growth of this industry.

This strategy was developed with guidance and input from a project steering committee and a strategic review committee that included representatives of Utah's life-science companies, research universities, community colleges, state government, and business and economic development organizations. Every effort was made to obtain inputs in as many ways as possible from the state's life sciences community, including one-on-one interviews, surveys, and focus group discussions.

This Utah Cluster Acceleration Partnership project is sponsored by the Utah System of Higher Education, the Utah Department of Workforce Services, and the Utah Governor's Office of Economic Development. Westminster College along with the University of Utah serves as the convening institutions.

The Battelle Technology Partnership Practice (TPP) was engaged to analyze Utah's life sciences industry sector and research and development base, identify any gaps in the state's life-science infrastructure, and facilitate the development of strategies and actions. TPP is the consulting arm of Battelle, the world's largest, nonprofit independent research and development organization. For more information on TPP, please contact Mitch Horowitz, Vice President and Managing Director, at horowitzm@battelle.org.

For more information on this and other Utah Cluster Acceleration Partnership projects, please contact the Utah System of Higher Education.



Executive Summary

This report is based on findings derived from extensive inputs from industry, university and broader education, and economic development leadership in the life sciences, and a detailed quantitative assessment of the life sciences industry in Utah, focusing on core technology and broader talent, innovation and research position of the state. It provides a Life Sciences Cluster Acceleration Strategy, setting out a detailed plan of action to guide this fast growing industry in Utah.

The major findings of the assessment are summarized below.

- **Utah's life sciences industry grew rapidly from 2001 to 2010, outpacing a growing national sector.** Employment in Utah's life sciences industry grew by 25.8 percent from 2001 to 2010, which included a 9.2 percent increase in jobs from 2007 through 2010, the period from the economic peak in 2007 through the recession years and the first full year of the recovery (2010). At the national level, growth in life sciences employment was 8.4 percent from 2001 to 2010, but essentially flat during the period 2007 through 2010.
- **Utah is specialized in its industry concentration compared to the nation and outpacing national growth in all four life sciences industry subsectors.** A comparison of the life sciences industry in Utah to that of the nation using standard national industry classifications reveals that across four major subsectors—Medical Devices and Equipment; Drugs and Pharmaceuticals; Research, Testing, and Medical Labs; and Biomedical Distribution—Utah is specialized with at least 20 percent higher level of industry concentration than is found at the national level for that subsector. In addition, each of the major subsectors of the life sciences industry is growing faster in Utah.[1]
- **Utah's life sciences industry is a source of high-wage jobs, paying average annual wages that are more than 50 percent greater than that for the overall private sector.** The average wage for jobs in the life sciences stands at $59,480, 53 percent above the private sector average of $38,932.
- **The life sciences industry has a significant impact on the Utah economy.** In 2010 the Utah life sciences industry cluster contributed $14.6 billion in economic output to the state, supported more than 63,000 jobs with workers earning $3.5 billion in personal income (includes direct, indirect, and induced impacts).

[1] It is important to note that natural products and dietary supplements companies do not have a stand-alone industry classification in the standard industry classification system, and are typically found within the Drugs and Pharmaceuticals and Biomedical Wholesale Trade subsectors.

- **Line of sight analysis of core competencies to market opportunities suggests many opportunities in Utah for growth in the life sciences industry cluster in the years ahead.** A detailed quantitative and qualitative analysis by Battelle led to the identification of 17 life-science core competencies in Utah based on analyses of patents, publications, major research centers, detailed industry strengths, venture-backed companies, and insights gained from more than 70 interviews with key researchers and administrators from Utah universities and industry CEOs. Matching life sciences research strengths with Utah's existing industry strengths suggests four areas that appear to offer the best opportunity for growth in Utah's life sciences industry cluster:
    - Novel medical devices
    - Molecular diagnostics and personalized medicine
    - Molecular medicine; drug discovery, development, and delivery
    - Natural products and dietary supplements.

It is clear from the qualitative analysis noted above that Utah has a strong base on which to continue to build its life sciences industry cluster. However, to realize the opportunities in the areas suggested above, Utah will need to maintain a competitive position in the life sciences and address any gaps in its life-science infrastructure. To be a leader in the life sciences, Utah must ensure that the state has:

- A robust life-science R&D infrastructure committed to engaging with locally-based life-science companies and facilitating commercialization of life-science discoveries
- A significant pool of talent in life sciences disciplines
- Capital markets able to support life-science companies through all stages of development
- A supportive business climate.

Results of a detailed quantitative assessment of life-science performance indicators across these key growth factors, along with findings generated from more than 70 interviews with CEOs of life science companies, life science entrepreneurs, bioscience companies, bioscience entrepreneurs, university leaders, university tech transfer staffs, economic development organizations, community college staff, and representatives of the venture capital community, indicate that in order to significantly accelerate the growth of Utah's life sciences industry cluster, the following four issues must be addressed.

1. **Utah must put in place a comprehensive approach to advancing talent development in life sciences disciplines.** This effort must work at each level of the talent pipeline from K–12 to post-secondary education to workforce development; it must create linkages across the life sciences industry cluster through promotion of activities associated with science, technology, engineering, and math ("STEM") education; career pathways; internships; and employer-guided curriculum and certificates, among other actions.

2. **Actions must be undertaken to address the capital needs of life-science companies.** This need extends across all stages of life-science firm development from proof-of-concept to seed funding to more formal rounds of venture capital investment.
3. **Utah should better leverage its university research base by encouraging and facilitating industry/university collaboration.** Such collaboration is needed not only to move research discoveries into the marketplace, but also to help Utah's life-science companies move up the value chain so that they are producing higher value-added products and services.
4. **Utah should undertake an advocacy campaign to promote the state as a center for the life sciences and to take a leadership role on federal policy reform.** These efforts need to raise the profile of Utah in the life sciences industry by making the state a destination for life-science business executives as well as address the image of Utah as a diverse and welcoming place. The success of these efforts depends upon having the resources in place to leverage the growing presence of life sciences in Utah. There is also a large need to engage, as a state, in the national policy debates surrounding FDA regulatory reform. Utah Technology Council is well positioned to lead the effort to join forces with other states in the national policy debates surrounding federal regulatory reform. Without a dedicated effort to monitor and help influence national policy and align state efforts, Utah will remain a silent voice.

Across these four strategic priorities to accelerate the growth of Utah's life sciences industry cluster, 17 specific actions were identified as set out in the chart below:

Develop, Retain and Attract Bioscience Talent	• Engage industry to identify specific education and training needs and provide input to develop and enhance curricula • Develop and implement life sciences career pathways • Expand outreach programs to inform and encourage students to consider careers in the life sciences • Promote and fund efforts to improve STEM education • Develop and implement a C-level talent attraction initiative • Grow the number of post-secondary internships in the life sciences
Ensure Access to Capital at All Stages of Firm Development	• Support commercialization and proof-of-concept projects • Promote the availablility of venture capital for life sciences industry in Utah across all stages of venture investment • Sustain the Life Science Tax Credit
Significantly Increase University/Industry Collaborations	• Foster greater industry and university collaboration in applied research • Promote the economic development mission of university technology transfer and commercialization • Foster greater industry and university interactions and partnering
Advocate for Utah's Life Science Industry	• Continue efforts to attract national and international life science conferences to Utah and maintain Utah's presence at key national life sciences conferences held outside of the state • Continue efforts to project an image of Utah as a diverse and welcoming state • Promote active outreach marketing of Utah in the life sciences • Ensure the capacity within state government to advance the interests and address the needs of the life sciences • Advocate for Utah's life sciences industry

Letter of Conveyance

As members of the Life Sciences Acceleration Strategy and Steering Committees, we express our support for the recommended actions and strategies that are outlined in this report.

Utah's life sciences industry employs nearly 23,000 workers and produced $9.6 billion in economic output in 2010. This diverse industry, with strengths in medical devices, research and testing, pharmaceuticals, and natural products and dietary supplements, has been and continues to be a key driver of Utah's economy. Employment in Utah's life sciences industry grew 26 percent between 2001 and 2010, including continued job growth during the recent recession. This has well outpaced overall Utah private sector industry growth. And the average wages for jobs in the life sciences stands at $59,480, well above the private sector average of $38,932.

In light of the importance of the life sciences industry cluster to Utah's economy, it is critical to ensure its continued growth and development as part of the Governor's goal to accelerate job growth in Utah.

Members of the Life Sciences Cluster Acceleration Strategy Steering Committee

University of Utah – Co-convening Institution

Westminster College – Co-convening Institution

Special recognition and appreciation to Westminster College and the University of Utah for their support of this effort.

UCAP Oversight Committee

Spencer Eccles, Executive Director, Governor's Office of Economic Development

Kristen Cox, Executive Director, Department of Workforce Services

William Sederburg, Commissioner of Higher Education, Utah System of Higher Education

Life Sciences Industry

Jeff Nelson, Nelson Labs, Chair

Lawrence Hill, Watson Labs

Andrew Laver, PPL Capital Advisors

Richard Nelson, Utah Technology Council

Pratap Khanwilkar, Ignition Key

Judy Young, Utah Technology Council

Public Sector

Beth Colosimo, Economic Development Corporation of Utah

Tami Goetz, Governor's Office of Economic Development

Ted McAleer, USTAR

Lynn Purdin, Department of Workforce Services

Rachael Stewart, Department of Workforce Services

Suzanne Winters, USTAR

Education

Tom Parks, University of Utah

Michael Basis, Westminster College

Cameron Martin, Utah System of Higher Education

Jeff Aird, Utah System of Higher Education

David Clark, Utah State University (former life science CEO)

Ned Weinshenker, Utah State University (former life science CEO)

Lynn Heinlein, Westminster College

Michael Keene, Westminster College

Battelle Project Team Leaders

Marianne Clarke

Mitchell Horowitz

Utah Life Sciences Industry Cluster Acceleration Strategy Review Committee

In addition to the steering committee, the following leaders provided critical insight to the final set of strategies and actions included in this strategy.

Dennis Briscoe, Wescor

Craig Caldwell, Salt Lake Community College

Mary Jane Chase, Westminster College

Skip Domenick, Aplion Medical

Jeff Edwards, Economic Development Corporation of Utah

Mike Feldman, Wasatch Breakthrough

Ping Fong, Biomedical Management Resources

Ashok Khandkar, BloXr Corp.

Richard Koehn, SentrX Animal Care, Inc.

Robert Lippert, Serial Entrepreneur (former President and CEO of Zars Inc.)

Rick Mandahl, UNIconnect

Tim Miller, Echelon Biosciences

Michael Paul, Lineagen, Inc.

Kirk Ririe, Idaho Technologies

Tamee Roberts, Utah Fund of Funds

Florian Salzbacher, University of Utah

Clifton Sanders, Salt Lake Community College

Janice Sugiyama, Utah Valley University

Tom Thatcher, Thatcher Pharmaceutical

Kimball Thomson, MD4

D. Clark Turner, Aribex

Cindy Walters, Haemonetics

Layne Webb, Edwards Lifesciences

Walt Murray, Master Control

Introduction

The Utah Cluster Acceleration Partnership (UCAP) is an initiative focused on increasing the economic impact of Utah's critical industry clusters and the contribution made by the various institutions of higher education.

Utah's higher education institutions are strong drivers of economic development. In addition to educating a highly-skilled workforce, they conduct world-class research and development (R&D) that often leads to new discoveries that can be developed into new products and even whole new industries. The Utah Cluster Acceleration Partnership, a collaborative effort of the Utah Department of Workforce Services (DWS), the Utah System of Higher Education (USHE), and the Governor's Office of Economic Development (GOED), was created to find ways to best leverage Utah's universities and colleges to help grow the state's leading industry clusters.

This acceleration strategy focuses on Utah's life sciences industry cluster, and recommends a set of actions to accelerate the sector's growth. It was developed under the leadership of the University of Utah and Westminster College, with technical support provided by Battelle's Technology Partnership Practice. Substantial guidance and input was also provided from a project steering committee that included representatives from USHE and its member colleges and universities; Utah life sciences industry executives and the life-science industry's trade association Utah Technology Council; state government; and economic and workforce development organizations.

Every effort was made to obtain inputs in as many ways as possible from the state's life sciences community, with close coordination with the Utah Technology Council, colleges and universities, and state government officials. Battelle conducted approximately 70 interviews and presented the input from the interviews along with findings from various analyses at the MD4 Utah Summit[2] that was held in October 2011. The project steering committee met three times to review findings and develop a proposed set of strategies and actions. In addition, a life sciences industry cluster acceleration strategy review committee composed of Utah's life sciences industry leaders reviewed preliminary recommendations and provided input incorporated in this document.

The Battelle project team collected and analyzed data on Utah's life sciences research and industry base; assessed the state's competitive position in life sciences development; and interviewed academic, research, business, and civic leaders to develop an understanding of Utah's existing life sciences research strengths and

[2] For more information see the MD4 website at http://md4utah.org/about-us

capabilities and to gather input on the types of investments that need to be made to enable Utah's life sciences industry cluster to be a key driver of Utah's future economy.

This report

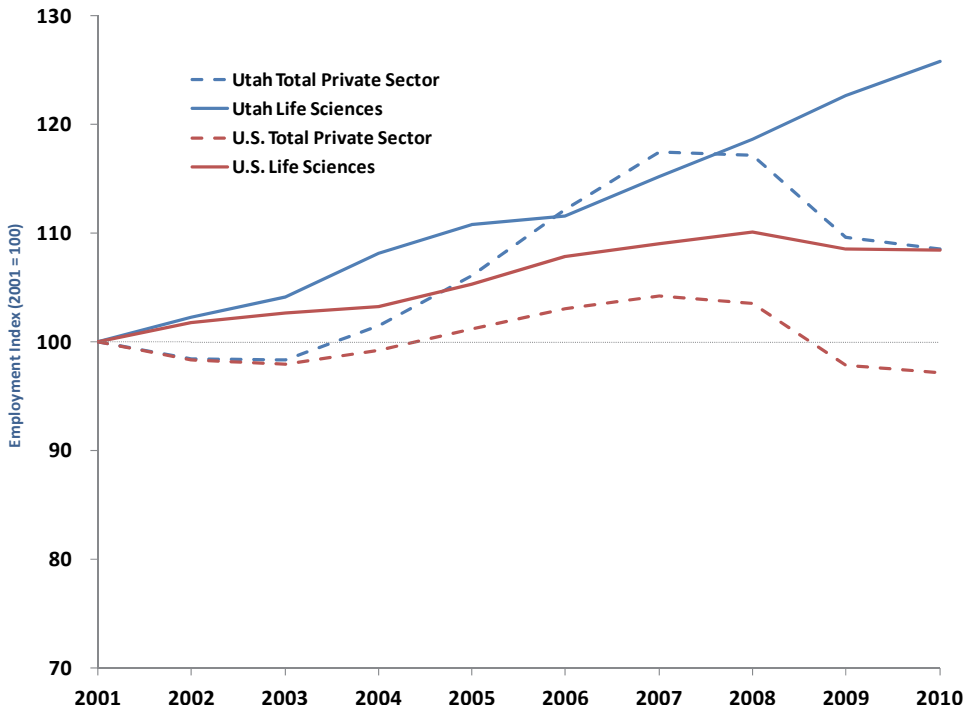
- Examines Utah's life sciences industry cluster and its contributions to Utah's economy;
- Assesses Utah's life-science R&D base and identifies specific technology areas that appear to offer the greatest opportunity for growth in Utah;
- Reviews Utah's competitive position in the life sciences and identifies gaps in policies and programs that need to be addressed if Utah is to continue to grow its life sciences industry cluster;
- Presents a set of strategies and actions for addressing gaps and capitalizing on opportunities; and
- Outlines an implementation plan to promote and sustain growth in Utah's life sciences industry cluster.

Utah's Life Sciences Industry Cluster

Utah's life sciences industry cluster is vibrant and growing rapidly.

Utah's life sciences industry grew rapidly from 2001 to 2010, outpacing a fast-growing national sector. As set out in Figure 1, Utah's life sciences industry, using standard national industry classifications, is defined as including four major subsectors—Medical Devices and Equipment; Drugs and Pharmaceuticals; Research, Testing, and Medical Labs; and Biomedical Distribution employed 22,983 workers in 2010. Natural products and dietary supplement companies, which do not have a stand-alone industry classification in the standard national industry classification system, are found across these subsectors, especially Drugs and Pharmaceuticals and Biomedical Distribution.

Figure 1: Utah Life-Science Employment Trends, 2001–2010



Employment in Utah's life sciences industry grew by 25.8 percent from 2001 to 2010. This includes a 9.2 percent increase in jobs from 2007 through 2010, the period from the economic peak in 2007 through the recession years and the first full year of the recovery (2010). At the national level, life-science employment grew by 8.4 percent from 2001 to 2010 and was essentially flat over the recent 3-year period (-0.5 percent).

Utah has experienced rapid, significant job growth across all four major life sciences subsectors over the decade. Employment growth was driven by a 61 percent increase in employment in Research, Testing, and Medical Labs and a 47 percent increase in Biomedical Distribution since 2001. Utah's Drugs and Pharmaceutical subsector grew an impressive 23 percent, given that this sector contracted by 0.7 percent nationally. Employment in the Medical Device and Equipment subsector grew more slowly at nearly 6 percent, but grew nonetheless while the national device subsector was flat.

Utah has a specialization in all four life sciences subsectors, based on the state's concentration of employment being at least 20 percent higher than is found at the national level for that subsector.[1] Utah's medical device industry is nearly three times as concentrated as the U.S. See Table 1.

Table 1: Utah Life Sciences Industry, Summary Employment Position and Recent Trends, 2010

Life Science Industry & Major Subsectors	UT Employment, 2010	UT Location Quotient, 2010	Employment Change, 2001-07 (Previous Business Cycle)		Employment Change, 2007-10 (Current Business Cycle)		Employment Change, 2001-10 (Full Period)	
			Utah	U.S.	Utah	U.S.	Utah	U.S.
Total Life Sciences	**22,983**	**1.82**	**15.2%**	**9.0%**	**9.2%**	**-0.5%**	**25.8%**	**8.4%**
Medical Devices & Equipment	8,741	2.97	0.1%	-0.1%	5.4%	0.1%	5.5%	0.0%
Research, Testing, & Medical Labs	5,857	1.43	28.4%	15.4%	25.1%	6.1%	60.7%	22.5%
Drugs & Pharmaceuticals	4,702	1.89	19.3%	5.0%	3.0%	-5.4%	22.9%	-0.7%
Biomedical Distribution	3,683	1.19	39.4%	14.4%	5.1%	-5.1%	46.5%	8.6%

Source: Battelle analysis of Bureau of Labor Statistics, QCEW data; enhanced file from IMPLAN.

Utah's life sciences industry is a source of high-wage jobs paying average annual wages more than 50 percent greater compared to the overall private sector. The average annual wage of a Utah worker employed by a life-science company was $59,480 in 2010, compared to an annual average wage of about $39,000 for the overall private sector. It is also the case, however, that life sciences industry wages are lower in Utah than nationally. The average wage of life-science employees at the national level was approximately $86,000, almost $27,000 higher than in Utah. This may be due, in part, to the fact that Utah's biomedical industry has a lower value added per worker ($106,379) than is found nationally ($120,313). Value added is the difference in output less the costs of inputs. It should be noted that all of Utah's technology-based industry clusters have a lower value added than their industry has at the national level. A lower value added suggests that Utah's companies are not focused on more complex, higher-value products. This also suggests that there is an opportunity for Utah to help its companies move up the value chain and to focus on attracting higher value-added operations.

Table 2: Average Annual Wages, Utah and U.S., 2010

Industry	Avg. Annual Wages		UT Share of U.S. Avg.
	UT 2010	U.S. 2010	
Management of Companies and Enterprises	$ 78,043	$ 98,215	79%
Biomedical Distribution	**$ 76,902**	**$ 88,191**	**87%**
Mining, Quarrying, and Oil and Gas Extraction	$ 70,053	$ 90,397	77%
Professional, Scientific, and Technical Services	$ 59,691	$ 77,313	77%
Total Life Sciences	**$ 59,480**	**$ 86,211**	**69%**
Research, Testing, & Medical Laboratories	**$ 57,142**	**$ 84,305**	**68%**
Medical Devices & Equipment	**$ 55,744**	**$ 73,591**	**76%**
Drugs & Pharmaceuticals	**$ 55,694**	**$ 101,830**	**55%**
Wholesale Trade	$ 54,489	$ 63,628	86%
Finance and Insurance	$ 54,145	$ 84,516	64%
Information	$ 52,447	$ 74,382	71%
Manufacturing	$ 49,491	$ 57,511	86%
Construction	$ 42,077	$ 49,588	85%
Transportation and Warehousing	$ 40,982	$ 44,198	93%
Total Private Sector	**$ 38,932**	**$ 46,451**	**84%**
Health Care and Social Assistance	$ 37,556	$ 43,732	86%
Agriculture, Forestry, Fishing and Hunting	$ 27,110	$ 26,626	102%
Retail Trade	$ 25,982	$ 26,655	97%

Source: Battelle analysis of Bureau of Labor Statistics, QCEW data; enhanced file from IMPLAN.

A number of specific life sciences industries in Utah are both specialized and growing. They include:

- Pharmaceutical Preparation Manufacturing
- Medical Laboratories
- Drugs Wholesalers
- Irradiation Apparatus Manufacturing
- Medicinal and Botanical Manufacturing
- Dental Equipment and Supplies Manufacturing.

Industries that are growing but in which Utah is not yet specialized include: Life Sciences Commercial Research and Development; Medical, Dental, and Hospital Equipment and Supplies Wholesalers; Surgical Appliance and Supplies Manufacturing; Electromedical and Electrotherapeutic Apparatus Manufacturing; and Analytical Lab Instrument Manufacturing.

Economic Impact of Utah's Life Sciences Industry Cluster

The Utah life sciences industry cluster has a large economic footprint in the state and is a key contributor to the economy. The cluster had estimated revenues of $9.6 billion[2] and employed 22,983 workers earning an estimated $1.8 billion in personal income in 2010 (see Table 3). The cluster generated an additional $2.8 billion in output through *Indirect Impacts*—its purchases of goods and services from other companies and organizations in the region, and $2.1 billion in output through *Induced Impacts*—local spending by Utah residents employed in or impacted by the sector.

Taken all together, in 2010 the Utah life sciences industry cluster contributed $14.6 billion in economic output to the state, supported more than 63,000 jobs with workers earning $3.5 billion in personal income (includes direct, indirect, and induced impacts). Every job created in Utah's life sciences sector created an additional 2.77 jobs in the economy.

Table 3: Economic Impacts of the Utah Life Sciences Industry Cluster, 2010 ($ in Millions)

Impact Type	Employment	Personal Income	Value Added	Output
Direct Effect	22,983	$1,762	$2,976	$9,612
Indirect Impacts	21,078	$1,033	$1,558	$2,831
Induced Impacts	19,532	$671	$1,250	$2,131
Total Impact	**63,592**	**$3,467**	**$5,785**	**$14,574**
Impact Multiplier	2.77	1.97	1.94	1.52

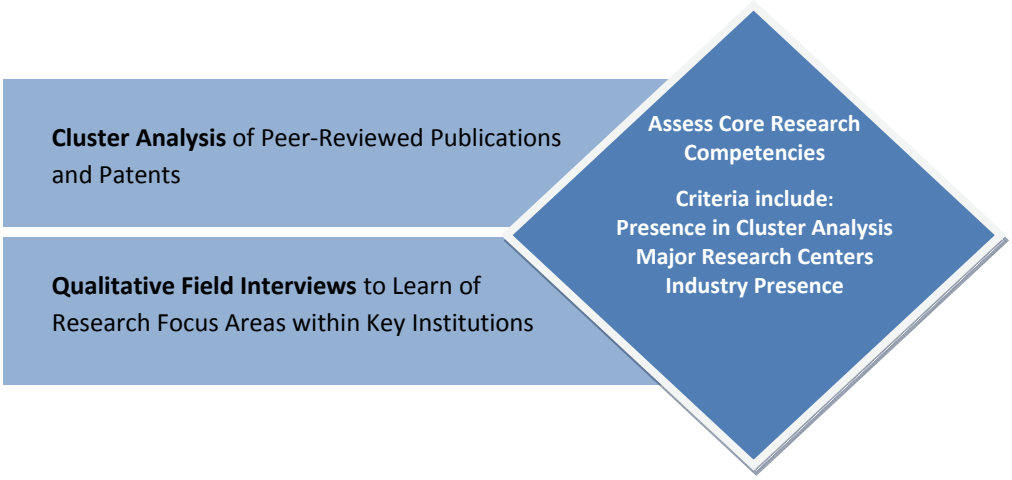
Source: Battelle analysis of Utah IMPLAN Input/Output model.

Utah's Life Sciences Opportunity Areas

As life sciences research leads to more and more discoveries that offer opportunities for market applications, increasing numbers of regions, states, and countries are targeting the life sciences as a potential growth sector. The key to succeeding in life sciences development lies in identifying, within the overall life sciences industry cluster, targeted strategic areas in which a state has comparative advantages on which to build. A key factor in determining these comparative advantages is to identify the core competencies found in a state's industry and university base. Research core competencies are those fields with a critical mass of ongoing activity along with some measure of excellence. No single source of information is sufficient to identify research core competencies. Rather, various integrated and complementary analyses are required to identify areas of focus that may contribute or lead to a state's future growth in the life sciences.

Using both quantitative and qualitative methods, Battelle has developed a methodology for assessing the core competencies of research institutions and industry (Figure 2). Battelle's quantitative assessment involves a unique cluster analysis of publications and patents that was used to identify Utah's life-science core competencies. Battelle identified 17 life-science core competencies in Utah based on analyses of patents, publications, presence of major research centers, presence of industry strength, and presence of venture-

Figure 2: Process for Core Competency Identification



backed companies and insights gained from more than 70 interviews with key researchers and administrators from Utah universities and industry CEOs.

Utah's 17 life-science core competencies can be grouped into four major innovation themes:

- Medical Devices
- Disease Research and Pharmaceuticals
- Basic Biotechnology Research
- Natural Products.

Matching these areas of life-science research strengths with Utah's existing industry strengths suggests four areas that appear to offer the best opportunity for growing Utah's life sciences industry cluster. (See Figure 3) They are:

- Novel medical devices
- Molecular diagnostics and personalized medicine
- Molecular medicine; drug discovery, development and delivery
- Natural products and dietary supplements.

Figure 3: Line of Sight from Innovation Themes to Detailed Industry Strengths to Possible Growth Opportunities for the Future

Innovation Themes	Detailed Industry Strengths	Possible Growth Opportunities for the Future
LIFE SCIENCE		
Medical Device Disease Research, Drugs and Pharmaceutical Basic Biological Research Natural Products	▪ Pharmaceutical Preparation Manufacturing ▪ Medical Laboratories ▪ Drugs Wholesalers ▪ Irradiation Apparatus Manufacturing ▪ Dental Laboratories ▪ Medicinal and Botanical Manufacturing ▪ Electromedical and Electrotherapeutic Apparatus Manufacturing ▪ Life science Commercial Research & Development ▪ Medical, Dental and Hospital Equipment & Supplies Wholesalers ▪ Surgical Appliance and Supplies Manufacturing ▪ Surgical and Medical Instrument Manufacturing ▪ Dental Equipment and Supplies Manufacturing	Novel medical devices Molecular diagnostics and personalized medicine Molecular medicine, drug discovery, development and delivery Natural products and dietary supplements

Each technology area is discussed below.

Novel Medical Devices

A medical device is a product involved in diagnosis, therapy, or surgery for medical purposes. It involves a wide range of products from imaging to monitoring to implants to surgical instruments and equipment. A major revolution is taking place in advanced medical devices involving the introduction of advanced technologies to improve tools for diagnosis and treatment and the development of biological substitutes to restore, maintain, and improve tissue, bone, and organ condition. Some of the leading technologies being adapted for use in innovative medical treatments and diagnostics include microelectronics, imaging, nanotechnology-related biosensors, robotics, and biopolymer materials.

HOW IT BUILDS ON UTAH STRENGTHS

Utah has a broad medical device industry including strong specializations in Surgical and Medical Instruments, Dental Equipment, and Irradiation Apparatus, and emerging strengths with growing employment in Electromedical and Electrotherapeutic Devices, and Surgical Appliance and Supplies Manufacturing. Utah is home to a growing number of global medical device companies including

- Bard Access Systems, a division of CR Bard located in Salt Lake City, a market leader in vascular access devices
- BD Medical, a global medical technology company that manufactures medical supplies, devices, lab equipment, and diagnostics products.
- Edwards Life Science, a global leader in the science of heart valves and hemodynamic monitoring.
- Merit Medical Systems, founded in 1987, a worldwide company engaged in the development, manufacture, and distribution of proprietary disposable medical devices.

Utah also has a number of emerging medical device companies. Among the firms that received venture financing between 2006 and the first quarter of 2011 were:

- Amedica Corporation, for developing orthopedic devices
- Catheter Connections, Inc., for developing medical infusion accessory products
- Coherex Medical, for developing medical devices for addressing structural heart diseases
- Control Medical Technology, for developing aspirator devices where fluids are aspired through small devices
- Health Line International, for developing vascular access and infusion therapy products
- Vital Access Corporation, for developing surgical and interventional technologies for vascular access
- White Pine Medical, with a focus on cardiovascular, orthopedics and neurostimulation devices
- WorldHeart Corporation, for developing heart assist pumps
- Moxtec, Inc. for manufacturing oxygen analyzers and monitors.

A wide number of Innovation Themes are found that are relevant to Medical Devices including:

- Surgical Instruments, Equipment and Devices
- Musculoskeletal Implants and Devices
- Cardiovascular and Pulmonary Conditions
- Medical Imaging
- Transplantation and Stem Cell Applications
- Ophthalmology
- Ion Channel Research.

Utah also stands out in the number of publications fields in which it is strong that relate to medical devices. These include: Biomaterials, Transplantation, Cardiac and Cardiovascular Systems, Imaging Sciences, Biophysics, Biomedical Engineering, Orthopedics and Neuroimaging.

Among the many university research centers and focus areas found in Medical Devices are:

- **University of Utah Cardiovascular Research and Training Institute**, which is focused on electrophysiology seeking to understand how both normal and diseased hearts generate electrical signals and how these signals modulate contraction. Such knowledge provides a basis for more effective treatment of arrhythmias and other disease states that effect ion movement across heart cell membranes.
- **University of Utah Bioengineering Department,** which brings an active focus on cardiovascular devices, neural engineering and through its Utah BioDesign, the advancement of novel devices through close collaborations with surgeons and other clinicians.
- **University of Utah Scientific Computing and Imaging Institute,** which is a renowned center of excellence with a core focus on biomedicine applications to address new image analysis techniques, visualization of complex and rich scientific data, advancement of computational and numerical methods for scientific computing and development of scientific software environments. SCI is home to the NIH funded Center for Integrative Biomedical Computing (CIBC), which is dedicated to producing open-source software tools for biomedical image-based modeling, biomedical simulation and estimation, and the visualization of biomedical data.
- **University of Utah Nano Institute,** which has faculty working on biomedical device innovation to improve the performance of implants and promote functional regeneration of tissue, along with work on polymer innovations for gene therapy and enhanced delivery of therapeutics.
- **Brigham Young University,** with has a focused effort on Compliant Mechanisms, which can advance novel biomedical devices through the use of microelectromechanical and nanoelectromechanical systems.

Molecular Diagnostics and Personalized Medicine

The growing knowledge of genomic and proteomic data linked to specific disease states or predisposition is fueling the rise of molecular diagnostics. Molecular diagnostics is not only a new tool for medical diagnosis; it is a gateway to personalized medicine. As we move forward in the second decade of the 21st century, the promise of personalized medicine remains largely ahead of us. Molecular diagnostics are integrally linked with the personalized medicine approach of pharmacogenomics, which considers how genetic variations or differences in gene expression affect the ways in which people respond to drugs. In fact, these personalized medicine approaches to understanding of how genetic variations affect reactions to different drugs can enable diagnostic tests to be established that can guide doctors to make more informed and cost-effective medication decisions for their patients.

HOW IT BUILDS ON UTAH STRENGTHS

Utah stands out in the strength of its medical testing laboratories, with 3,237 jobs in 2010, an increase of 91 percent since 2001. This industry has been growing more rapidly in Utah than nationally. Employment in this industry is 127 percent more concentrated in Utah than it is nationally. Of particular note for Utah is the presence of ARUP Laboratories, one of the nation's leading clinical and anatomic pathology reference laboratories. ARUP Laboratories was created in 1984 by the University of Utah School of Medicine's Department of Pathology, and has established itself as a role model for bridging the gap between academic medicine and successful business enterprise. Not only does ARUP Laboratories process more than 30,000–35,000 specimens of blood, fluid, and tissue samples each day, it has become a world leader in laboratory research and development having developed more than 400 clinical laboratory tests and improving and validating more than 200 others, while at the same time having an extensive publications track record in peer-reviewed journals.

While in vitro diagnostics does not stand out as a specific industry in Utah, the state is home to Myriad Genetics, one of the nation's leading molecular diagnostic companies with a broad number of diagnostic procedures related to cancer detection and treatment. Emerging diagnostic companies found in Utah include Sorenson Genomics, focused on verifying human identity and relatedness and Lineagen, with a diagnostic on the market for autism and ongoing scientific programs in the areas of multiple sclerosis (MS) and chronic obstructive pulmonary disease (COPD).

Utah also has a number of emerging biopharmaceutical companies advancing new diagnostics and testing products and services. Among the firms that received venture financing between 2006 and the first quarter of 2011 were:

- Numira Biosciences, LLC, a specialty contract research organization focused on analysis of tissue samples for disease progression, drug efficacy and drug side effects.
- Lineagen, Inc., focused on molecular diagnostics for autism.
- Axial Biotechnology, focused on the use of genetics and minimally invasive fusion-less devices to diagnosis human spine diseases.

- BioMicro Systems, Inc., developing micro fluid analysis technologies for genomics, proteomics, and diagnostics research.
- Sera Prognostics, providing diagnostics to predict and manage pregnancy complications.

Genomics and biologics stand out as distinct Innovation Themes based on the cluster analysis of patents and publications. Utah also stands out in a number of fields closely associated with molecular diagnostics, including Medical Laboratory Technology and Biochemistry and Molecular Biology

Among university research centers and focus areas there are several of note in the area of molecular diagnostics and personalized medicine. They include:

- The University of Utah's Nano Institute, which is focused on the development of nano-based diagnostics and therapeutics through the application of nanobiosensors for early disease detection, chromatography, and immunoassay applications.
- The Huntsman Cancer Institute, which is closely tied to the Department of Human Genetics at the University of Utah noted for its model systems work in genetics research involving C. elegans, drosophila, mice, and zebra fish.
- The NIH funded University of Utah Center for Clinical and Translational Science, a collaboration with Intermountain Healthcare, University Health Care, Utah Department of Health and the Salt Lake City Veteran's Administration. The Center is building on the university's strengths in genetics and bioinformatics to bring promising bench science into practice.
- Brigham Young University, which has faculty research ongoing in molecular diagnostics including development of lab-on-a-chip tools to detect and quantify clinically relevant biomolecules and development of new bioarrays for tissue analysis using mass spectroscopy in collaboration with the La Jolla Institute for Molecular Medicine (LJIMM).

A unique and well-established asset that will support the development of molecular diagnostics and personalized medicine in Utah is the Utah Population Database (UPDB), a resource that includes vast amounts of population-based information obtained by linking extensive data from genealogies, medical and cancer records, health care utilization histories, and demographic information. Large genealogies contained in UPDB are based on records from the founding pioneer families who settled Utah and their descendants. Through linkage with all birth certificates and other population data, the UPDB has extended the coverage of the genealogy information to the present. At its deepest, the UPDB has data on families that go back 12 generations. Combining genealogies with medical and vital records creates unparalleled synergies that have grown through record linkages to all University of Utah Health Care and Intermountain Healthcare medical records. UPDB now provides data to support over 125 active research projects. UPDB is the largest and most comprehensive genealogic and medical research database in the world, and a powerful tool for epidemiological, public health and health outcomes research. Two important objectives are to associate a biospecimen bank with UPDB and to connect UPDB records to environmental exposures in order to greatly expand its capacity for analysis on genetic and gene-environment studies in support of personalized health care.

Molecular Medicine; Drug Discovery, Development, and Delivery

With the recent advances in genomics and biotechnology, a new era of molecular medicine is revolutionizing the development of drugs from the traditional trial and error approach to a more predictive and systematic use of detailed information about the operations of cells and molecules to pursue more focused interventions on disease processes. In particular, the use of advances in genomics and proteomics combined with improved disease model systems and computerized or "in silico" high throughput screening is transforming our understanding of the structure and function of genes and proteins and leading to improved ability to identify new potential targets of intervention for diseases. An important use of "in silico" drug development is assisting in the pharmacological study of drugs to improve drug design for absorption, distribution, metabolism, excretion, and toxicity.

Drug delivery is also being advanced through the use of polymer-based drug delivery systems and nanotechnology. Advances in polymer science have led to the development of several novel drug-delivery systems, including biodegradable polymers that can degrade into non-toxic forms in the body, highly absorbent and responsive hydrogels that can be used as biosensors as well as in wound healing and tissue scaffolding, and novel supramolecular structures able to deliver biologics.

Often involved in novel polymers, but also useful in other materials for drug delivery, are advances in nanomaterials. Nanomaterials have a number of functions in drug delivery such as encapsulation to protect the drug and prevent it from reacting with non-targeted tissues during transport, and as functional drug carriers in targeted delivery systems. Nano-sized particles have higher rates of diffusion and solubility, the ability to penetrate the blood-brain barrier, lower immune rejection rates, better digestibility, and more precise timed release and thus increased efficacy. The key value of nanotechnology in drug delivery is the potential to make drugs more effective at lower doses, at minimal or no toxicity, and help convert drug candidates that are otherwise poorly soluble in water into viable products.

HOW IT BUILDS ON UTAH STRENGTHS

Utah's biopharmaceutical sector, including Pharmaceutical Preparation Manufacturing and Medicinal and Botanical Manufacturing is specialized and growing. Employment in Life Sciences Commercial R&D, though not yet specialized, grew by 34 percent between 2001 and 2010. The state's employment in Pharmaceutical Preparation manufacturing grew by nearly 26 percent; employment in Medicinal and Botanical Manufacturing grew by 8 percent during this time period. Utah also has a number of emerging biopharmaceutical companies that are advancing new therapeutics.

On the research side, a wide number of Innovation Themes in disease research, drug-related basic research, and pharmaceutical development are found in Utah. Based on an analysis of the content of patents and publications, we identified the following areas:

- Neurosciences
- Cancer
- Drug Development and Delivery

- Infectious Diseases, Pathogens and Immunology
- Diabetes
- Molecular Genetics and Cell Biology.

Utah also has major research centers that support the development of this area.

- The University of Utah College Pharmacy is one of the top National Institutes of Health funded colleges of pharmacy, nationally recognized in medicinal chemistry, pharmaceutics and pharmaceutical chemistry spanning drug discovery, evaluation, delivery and outcomes research.
- The Huntsman Cancer Institute is a National Cancer Institute-designated Cancer Center noted for its contributions in identifying the genetic mutations responsible for inherited susceptibility to a number of cancers, including neurofibromatosis, colon cancer, breast cancer, and melanoma. It also has an active experimental therapeutics research thrust and is building capacity for early phase clinical trials.
- The University of Utah Molecular Medicine Program is an interdisciplinary effort to support and train physician researchers, who are critical to advancing novel treatments for a variety of human diseases and conditions, including cardiovascular and diabetes/metabolism. It is closely aligned with the clinical departments at the University of Utah, the Department of Human Genetics and the Utah CTSA. It also organizes the core faculty to support the MD-PhD program, Summer Medical Research Program, Howard Hughes Medical Institute med-to-grad PhD track, and other NIH-funded training programs.
- Brigham Young University's Cancer Research Center involves 17 faculty members from across the Colleges of Physical and Mathematical Sciences, Life Sciences, Health and Human Performance, and Engineering and Technology, who are working on cancer-related drug and diagnostic discovery, cancer biochemistry, cancer genetics, cancer immunology, and cancer epidemiology and bioinformatics. Among its most active programs are screening for anti-cancer molecules, use of DNA microwires for cancer detection, and genetic processes involved in cell division.
- Other biomedical research under way at BYU includes research into genetic risk factors for Alzheimer's disease; research into targeting AMP-activated protein kinase for prevention and treatment of type 2 diabetes; and Research into HIV treatment to address reservoirs or sites where HIV escapes intervention by drugs or the immune system.

Natural Products and Dietary Supplements

According to the Dietary Supplement Health and Education Act of 1994, a dietary or nutritional supplement is any product that contains one or more dietary ingredients such as a vitamin, mineral, herb or other botanical, amino acid, or other ingredient used to supplement the diet. Dietary supplements come in a variety of forms: traditional tablets, capsules, and powders, as well as drinks and energy bars. Popular supplements include vitamins D and E; minerals like calcium and iron; herbs such as echinacea and garlic; and specialty products like glucosamine, probiotics, and fish oils. Dietary supplements are not food additives (such as

saccharin) or drugs. It is estimated by the NIH Office of Dietary Supplements (ODS) that Americans spend about $25 billion a year on dietary supplements and at least 50,000 products are available that contain dietary supplements.

There is an active effort at the National Institutes of Health to investigate the potential roles of dietary supplements in promoting health and reducing the risk of chronic disease. Much of this work is done in concert with other NIH institutes and centers. ODS also engages its federal partners in activities to fill essential needs that would not otherwise be addressed. In 2010, 89 NIH-supported projects focused on the health impacts of dietary supplements for conditions such as age-related disease, anti-cancer activity, bone health, inflammatory disease prevention, asthma, cardiovascular disease, heart failure, sickle cell disease, malaria, maternal and child health, obesity, and diabetes, among other health conditions.

HOW IT BUILDS ON UTAH STRENGTHS

Utah is already a leading center for the nutritional supplements industry. A detailed listing compiled by the Utah Technology Council identified more than 100 natural products and dietary supplement companies in Utah. It is estimated that these companies account for 20 percent to 30 percent of the entire U.S. market. In the North American Industry Classification System there is no specific industry classification that fully encompasses the natural products and dietary supplement companies. Some of these companies are classified as Medicinal and Botanical Manufacturers. This industry is 3.3 times more specialized in Utah than the nation and grew by 8 percent from 2001 to 2010, reaching 760 jobs in 2010. Other companies are classified as Pharmaceutical Preparation Manufacturers, which is 105 percent more concentrated than the nation and grew a robust 25.6 percent from 2001 to 2010, and reached 3,892 jobs in 2010.

The nutritional supplement and functional foods area stands out as a distinct Innovation Theme based on the cluster analysis of patents and publications activities. The types of activities include research on the use of supplements to treat diseases, chemical analysis of nutritional content, probiotics, and impacts of fiber intake on weight reduction, and improved content of cheese production.

In scholarly activity, Utah stands out in nutrition and dietetics with 117 publications from 2005 to 2009, which represents 1.2 percent of all U.S. publications. Particularly impressive is that Utah is 174 percent higher in the level of citations per publication, a measure of quality of publications, than the national average.

A key new university resource in the area of nutritional supplements and functional foods is Utah State University's Center for Advanced Nutrition, supported by USTAR. The Center includes a newly constructed 110,000 sq ft building at the USU Innovation Campus with state-of-the-art metabolic kitchen and research facilities in which clinical research can be conducted in collaboration with industry. Currently the Center works with food and natural product companies in and outside the state of Utah to help them better substantiate claims and identify new health-related properties for their products. Among the key research efforts under way at the Center are research to identify plant or animal compounds with health benefits that can fight obesity, type II diabetes and cardiovascular disease, research into gut biology and ways to control the appetite for dietary fat, and research on the neurological and biological impacts of fatty food consumption and exercise on the brain as a determining factor for type II diabetes and obesity.

Competitive Assessment of Utah's Life Sciences Industry Cluster

It is clear from the above discussion that Utah has a strong base on which to continue to build its life sciences industry cluster. Indeed the state is well positioned to capitalize on rapidly expanding markets for personalized medicine, new medical devices, nutritional supplements, and biopharmaceuticals. But realizing the opportunities described above will require that Utah maintain a competitive position in the life sciences and address any existing gaps in its life-science infrastructure.

To be a leader in the life sciences, Utah must ensure that the state has:

- A robust life-science R&D infrastructure committed to engaging with locally-based life-science companies and facilitating commercialization of life-science discoveries
- A significant pool of talent in the life sciences disciplines
- Available capital able to support life-science companies through all stages of development
- A supportive business climate.

Research and Commercialization Infrastructure

To become a major life sciences center, a state must have a strong, world-class higher-education presence, with leading-edge researchers and clinicians in the medical, life, and biological sciences. The hallmarks of a respected life sciences center today are medical centers and teaching hospitals, multidisciplinary centers, and modern facilities, well-equipped for state-of-the-art research.

Life-science research programs can flourish only if they have world-class researchers and access to an excellent physical infrastructure. This infrastructure includes state-of-the-art laboratory facilities and equipment, telecommunications capacities, computer systems and software, and the buildings to house all of these elements. It also includes the creative use of land and other holdings in support of the R&D enterprise.

Having a robust life-science R&D enterprise is but one step to success. The research community must be committed to commercializing research discoveries and must have at their disposal a support infrastructure to enable them to successfully develop and introduce new products or services and start-up new businesses.

The strengths of Utah's research universities in the life sciences disciplines are considered a major competitive advantage by Utah's life sciences industry. Academic R&D in life sciences disciplines increased by 66 percent between 2001 and 2009, growing to $280 million. While this growth is impressive, the rate slightly lagged growth in academic life-science R&D at the national level. Utah performed very well, however, in terms of NIH funding, considered the gold standard of life-science R&D. The value of Utah's NIH awards increased 25 percent between 2005 and 2010, much faster than at the national level, which grew only 5 percent. This increase in NIH awards suggests that Utah researchers are performing at a very high level.

As stated above, having a cutting-edge life-science research enterprise is only the first step; leveraging that base for economic development requires translating research discoveries into commercial products and services. Utah universities have a history of spinning off life-science companies based on university-developed

technologies. Myriad Genetics, Watson Pharmaceuticals, Coherex, Lineagen, and Sera Prognostics are examples of Utah life-science companies that were developed based on university discoveries. The universities also have taken steps in the past five years to restructure their technology transfer and commercialization activities, and to encourage and support faculty seeking to commercialize their research findings.

These initiatives, while positive, need to be expanded and applied comprehensively for Utah to assume a leadership role in life sciences. There are still opportunities to further the linkages between university research and industry development. The majority of life-science business leaders interviewed reported that they did not often collaborate with Utah universities. Among those that did collaborate, there were frequent comments on the need to address difficulties encountered in trying to negotiate licensing agreements and/or putting sponsored research contracts in place.

Talent

Ensuring the availability of an educated, skilled workforce is pivotal to developing and sustaining a robust life sciences industry cluster over the long term. Those states and regions that effectively address life-science workforce needs will be in a stronger position to grow and develop their life sciences industry clusters. Across occupations and careers in the life sciences, the skills required extend beyond high school, even for production- and technician-level workers. Nearly all careers in the life sciences disciplines require post-secondary education that combines scientific principles and applied laboratory techniques. High school programs related to career development in the life sciences disciplines are best viewed as a first step in a structured pathway to life-science careers, based on industry standards and closely aligned with post-secondary education offerings.

Factors Driving Life-Science Workforce Needs

- Fast pace of innovation drives new skill development in the life science—stronger emphasis on technology skills along with life science knowledge
- Critical skill shortages can emerge quickly and pose major impediments to industry growth in niche areas
- Breadth of life science—involving research, manufacturing, and services—drives broad workforce skill demands
- Post-secondary education for life science positions, even in more production-oriented activities, is important
- Specific cross-cutting occupational skills are needed in good laboratory and manufacturing practices

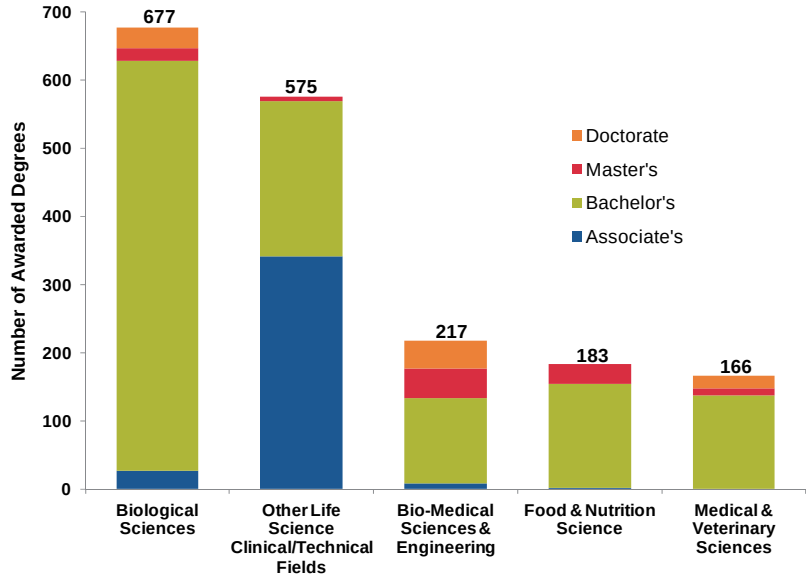
Nationally, states have become very aggressive in addressing the talent needs of the life-science sector. Across the board, states are implementing new program offerings at all levels of education, including K–12, community college, undergraduate, and graduate; new programs combining business with life sciences education; and new types of degree offerings to address the need for people with expertise in regulatory affairs and clinical trials. New life sciences and biomedical institutes have been formed, some of which are multi-institutional; and specialized science and technology high schools and biotechnology magnet programs have been instituted. States are working with the life sciences industry to develop career pathways, offering programs to equip teachers with life-science skills and knowledge, and encouraging existing workers to retrain for careers in the life sciences.

Utah has been making considerable gains in terms of bioscience-related college degrees awarded. From 2003 to 2009, the number of bioscience-related college graduates in Utah increased from 1,225 to 1,818, a gain of 48 percent. By comparison, the number of bioscience-related college graduates in the U.S. increased by

43 percent. As a percentage of all college graduates, Utah now equals the U.S. average of 4.8 percent of all college graduates obtaining degrees in bioscience-related fields.

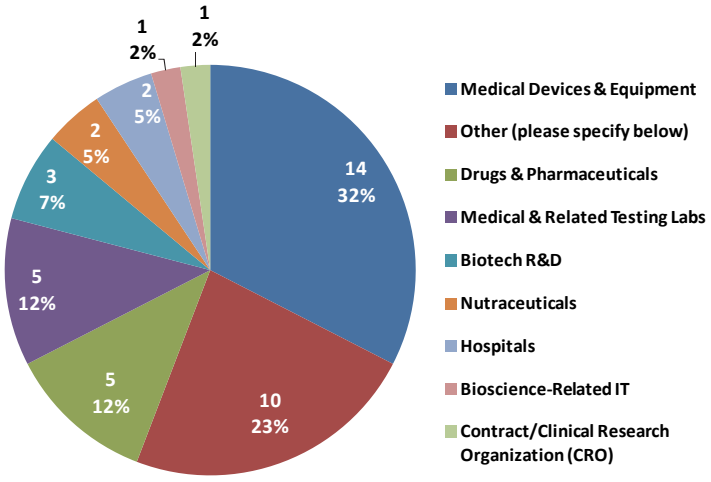
Utah generates a broad mix of bioscience-related graduates. Biological sciences and clinical/technical fields accounted for the largest number of degrees in this area. Still, there were sizable numbers of degrees awarded in bioengineering, food and nutrition sciences, and medical/veterinary sciences. Further analysis revealed that the share by level of degree—associate, bachelor's, master's, and doctorate—was largely in line with the overall U.S. with a slightly higher focus on bachelor's degrees and lower emphasis on master's degrees in Utah compared to the U.S.

Figure 4: Bioscience-related Degrees in Utah by Broad Category and Level, 2009



On a general level, Utah life-science employers report that Utah's workforce is a major advantage. It is well-educated, has an excellent work ethic; by and large employers are able to find the talent they need. But specific positions, particularly in the regulatory affairs and quality control areas, are difficult to fill locally, and it can be difficult to recruit experienced life-science workers to relocate to Utah, because Utah's life sciences industry cluster is still small and because of the image that they have of Utah. Given the importance of on-going regulatory changes governing this industry, having access to talent and skills in this area is critical to the growth of the sector.

Figure 5: Respondents by Industry (Note: first figure is number of companies, second is share of industries)



To better understand the workforce needs of Utah's life-science companies, Battelle conducted a web-based workforce survey to collect data on recent workforce trends, skill requirements, expectations, issues, and challenges. Forty-three companies and institutions responded to the survey. About one-third of the respondents were medical device companies. The respondents reported employing more than 6,000 workers, about a 1,000 of which had been hired in the past year.

Looking forward, the number of vacancies and expected hires in the year ahead is substantial, together exceeding over 1,000 positions. This is consistent with findings from the Utah Technology Council that there are thousands of high skilled job openings—or what UTC terms "hot jobs"—in Utah across life sciences and information technology companies.

Table 4: Current and Future Life Science Workforce

Occupations/Major Job Functions	Current & Future UT Life Science Workforce			
	Existing	Recent New Hires	Current Vacancies	Expected New Hires
Utah Totals*	**6,090**	**1,043**	**215**	**831**
Research Scientist	183	31	9	25
Research Technician	245	34	9	**48**
Medical/Clinical Lab Technician	**1,030**	**72**	**27**	**52**
Clinical Trial Coordinator	104	14	2	14
Health/Bio Informatics	69	13	6	3
Engineering-Product Development or Research	144	18	4	35
Engineering-Process Development	109	19	**17**	25
Engineering Technician	80	10	2	28
Quality Assurance/Control/Validation	263	50	14	**43**
Manufacturing and Production	**1,043**	**195**	**25**	**414**
Technical Support	**1,234**	**393**	**62**	22
Marketing and Sales	**894**	**88**	**17**	**76**
Regulatory Affairs	79	9	2	17
Other	**613**	**97**	**19**	29

New Hires = since August 1, 2010
Expected New Hires = in the next 2 years including filling any current vacancies
Figures in Red Shading represent the Top 5 responses from each workforce category.

The largest current occupational groups are also projected to see the largest near-term hiring particularly in Production and in Marketing/Sales.

Relative to their current levels, some strength is expected for hiring in the following job categories:

- Manufacturing/Production
- Engineering Technician
- Engineering – Product R&D
- Regulatory Affairs
- Research Technician.

The respondents were asked to rank each occupation on a scale of 1 to 5 in terms of the difficulty of finding qualified candidates. The positions most difficult to fill were regulatory affairs, quality assurance, clinical trials coordinator, engineering-process development, and health bio-informatics. Firms indicated that they do not have much difficulty filling research technician, manufacturing, and product and technical support positions. The majority of firms recruit nationally as well as locally for most occupations, although recruitment for technician positions is more likely to be done within Utah.

It is clear that the vast majority of life-science jobs in Utah require post-secondary education, with a high percentage of positions requiring at least a Bachelor's degree. See Table 5.

Table 5: Educational Requirements by Occupation

Occupation/Major Job Function	No Diploma	High School/GED	Vocational Training/Certificate	Two-year/ Associate's Degree	Bachelor's Degree	Master's Degree	Ph.D.	Share of Responses Bachelor's or Higher
1. Research Scientist	0	0	0	2	6	**14**	**23**	96%
2. Research Technician	0	2	3	**12**	**19**	5	1	60%
3. Medical/Clinical Lab Technician	0	2	3	**12**	**9**	1	1	39%
4. Clinical Trial Coordinator	1	0	0	3	**9**	**10**	5	86%
5. Health/Bio Informatics	0	0	0	2	**8**	**8**	4	91%
6. Engineering-Product Development or Research	0	0	0	2	**18**	**14**	1	94%
7. Engineering-Process Development	0	0	0	2	**22**	**8**	2	94%
8. Engineering Technician	0	2	4	**14**	**10**	4	1	43%
9. Quality Assurance/Control/Validation	0	2	**6**	5	**24**	3	1	68%
10. Manufacturing and Production	3	**12**	3	6	**11**	3	1	38%
11. Technical Support (e.g., Logistics, Documentation, etc.)	0	**10**	5	9	**12**	1	1	37%
12. Marketing and Sales	0	1	0	**8**	**23**	7	1	78%
13. Regulatory Affairs	0	1	1	4	**19**	**9**	2	83%
14. Other	0	**4**	3	**4**	**8**	3	3	56%

It is also clear that most employers in the life sciences fields are looking to hire people with some work experience, preferably in a related field. See Table 6.

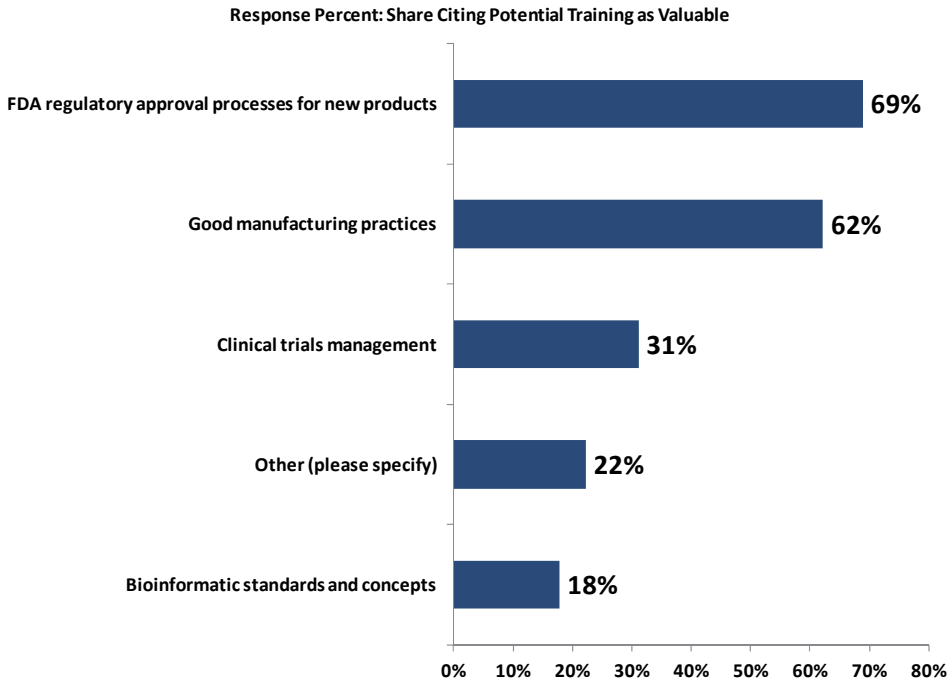
Table 6: Requirements for Work Experience

Occupation/Major Job Function	Education Only - Would hire directly out of school	Education plus some work experience	Education plus experience in a related field	Education plus experience in this occupation/technical area
1. Research Scientist	3	10	**13**	**23**
2. Research Technician	8	**18**	**11**	4
3. Medical/Clinical Lab Technician	**8**	**11**	**8**	2
4. Clinical Trial Coordinator	0	**7**	**9**	5
5. Health/Bio Informatics	0	**4**	**9**	3
6. Engineering-Product Development or Research	3	**8**	**16**	**8**
7. Engineering-Process Development	3	**9**	**13**	6
8. Engineering Technician	6	**12**	**10**	2
9. Quality Assurance/Control/Validation	3	**13**	**18**	6
10. Manufacturing and Production	10	**14**	**11**	2
11. Technical Support (e.g., Logistics, Documentation, etc.)	7	**19**	**9**	3
12. Marketing and Sales	5	**11**	**13**	**11**
13. Regulatory Affairs	3	6	**15**	**11**
14. Other	4	**6**	**9**	3

Note: Top 2 response counts for each occupation are shaded in red

The survey responses confirmed that the areas of greatest need for training were in the areas of Regulatory Policy and Good Manufacturing Practices, as set out in Figure 6. Additional topics that were suggested for training in an open ended question included SBIR Management, International Regulatory Policy, Six Sigma, and Lean Manufacturing.

Figure 6: Perceived Value of Potential Training



It is clear that as Utah's life sciences industry cluster continues to grow, demand for skilled workers will increase accordingly. This translates to a real opportunity for Utah's life-science companies to work in partnership with the state's educational system and industry organizations to identify workforce needs and to develop programs that address them.

Capital

Most people realize that the discovery of new knowledge resulting in the development of new technologies is a very expensive process running, in some cases, into millions of dollars. What many people do not realize is that the costs associated with developing and taking a technology product or service to market are also very substantial. Major costs incurred after the research has been completed include the cost of assessing the market to determine the competition, the likely market, and the price points for competitive advantage; developing a prototype; preparing a marketing and sales plan; and scaling up for manufacturing. Finally, actual product distribution, sales, and marketing must be undertaken. These activities require the availability of sufficient capital to finance business growth and economic development.

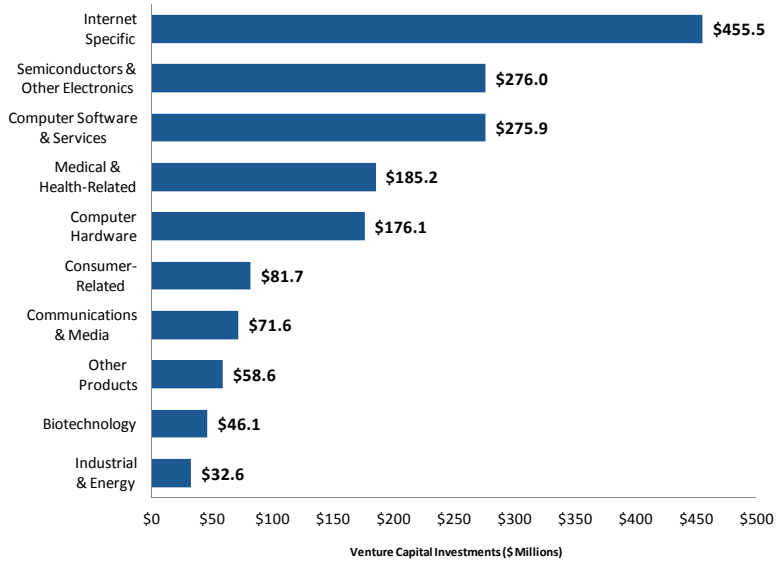
While these needs apply to all technology-based companies, many life-science companies, particularly those involved in biomedicine, need to access larger amounts of capital for longer time periods to cover the time needed to complete clinical trials and obtain regulatory approvals before products can be introduced into the market.

Yet, few sources of funding bridge the gap between the points at which (1) a discovery has been identified and demonstrated and (2) a business case has been validated and venture or other debt capital can be obtained. It

is also difficult to obtain seed and early-stage investment because venture funds, as they have become larger, tend to make larger, later-stage investments. As a result, angel investors have also moved downstream (further away from pre-seed and seed investments), making more post-seed and later-stage investments than previously. This trend has been exacerbated during the recession which has caused venture firms to invest primarily in their portfolio companies who do not have other options for accessing capital. So, in addition to the difficulty of obtaining translational research and pre-commercialization funding, firms are facing a gap at the start-up phase, as well.

Venture capital funds invested approximately $1.7 billion in Utah-based companies between 2006 and the 2nd Quarter of 2011. But the majority of these funds were invested in Utah's information technology and electronics firms. Only 14 percent of total venture capital investments were invested in life-science companies during this time period. See Figure 7 below.

Figure 7: Venture Capital Investments in Utah Companies, 2006–2nd Q 2011



Source: Battelle calculations – based on Thomson Reuters VentureXpert data.

A closer look at the investment by stage suggests that investments in ventures in the life sciences disciplines are not only a small share of total venture investments in Utah, but also are particularly lagging at the seed and early stage. Overall Utah leads the nation in its level of seed and early stage venture capital investments as shown in Table 7. However, in life sciences investments, Utah lags behind the U.S. average.

Table 7: Venture Capital Investments by Stage for Utah and the U.S., 2004–Q2 2011

Stage	Share of All Life Sciences Investments		Share of All Industry Investments	
	UT	U.S.	UT	U.S.
Seed	6.6%	7.2%	4.2%	3.1%
Early Stage	16.7%	19.7%	15.6%	11.8%
Expansion	32.6%	24.4%	24.8%	23.1%
Later Stage	21.6%	32.8%	30.0%	23.8%
Acquisition	6.5%	7.7%	14.6%	24.2%
Public Market	15.1%	6.5%	10.3%	11.2%
Other	0.8%	1.8%	0.6%	2.9%

Source: Battelle calculations – based on Thomson Reuters VentureXpert data.

A majority of the life-science entrepreneurs and CEOs of start-up companies reported that it is very difficult to obtain venture capital in Utah. There are few locally-based venture funds, particularly funds available for investment in life-science companies, and it is difficult to attract capital from out-of-state without a local partner. Utah has several angel investor groups including Salt Lake Life Science Angels, Park City Angels, and Utah Angels. With the exception of Salt Lake Life Science Angels, Utah's angel investors are investing in Utah's information technology and digital media companies, but they are less of a source for life-science companies, particularly given the large capital requirements and long timeline for the development of biomedical products.

Supportive Business Climate

Technology-based companies, like any business, consider a variety of factors when deciding where to locate a facility. They consider costs, availability and quality of the workforce, transportation infrastructure, real estate markets, the regulatory environment, and quality of life factors. Life-science companies need a regulatory environment that encourages and supports the growth and development of their industry and tax policies that recognize the long development cycle required to bring new life-science discoveries to the market. Responsiveness by state and local governments to regulatory, permitting, and other requirements can significantly impact where life science firms stay, grow, or expand.

Utah's business climate is a key strength that has resulted in economic growth in recent years. In 2010, Forbes Magazine ranked Utah as the number one state for doing business in the U.S. CEOs interviewed for this project reported that the state is very business friendly and that they are able to access local- and state-level policymakers. Utah's geographic location and transportation infrastructure were also cited as major advantages. Utah is a central location to major western cities and states, with a one- to two-day access to half the nation's population. It has multiple modes of transportation and distribution that are easily accessible.

With its location on the Canada/Mexico corridor, Utah is an excellent location for product distribution. Salt Lake City airport offers service to more than 100 cities and numerous international locations. Utah has lower costs, and companies reported no difficulties in terms of finding facilities. Utah is recognized as having a good business climate and an excellent quality of life, with many recreational and cultural amenities. All of these factors make Utah an attractive location for life-science companies.

Critical Issues to Address

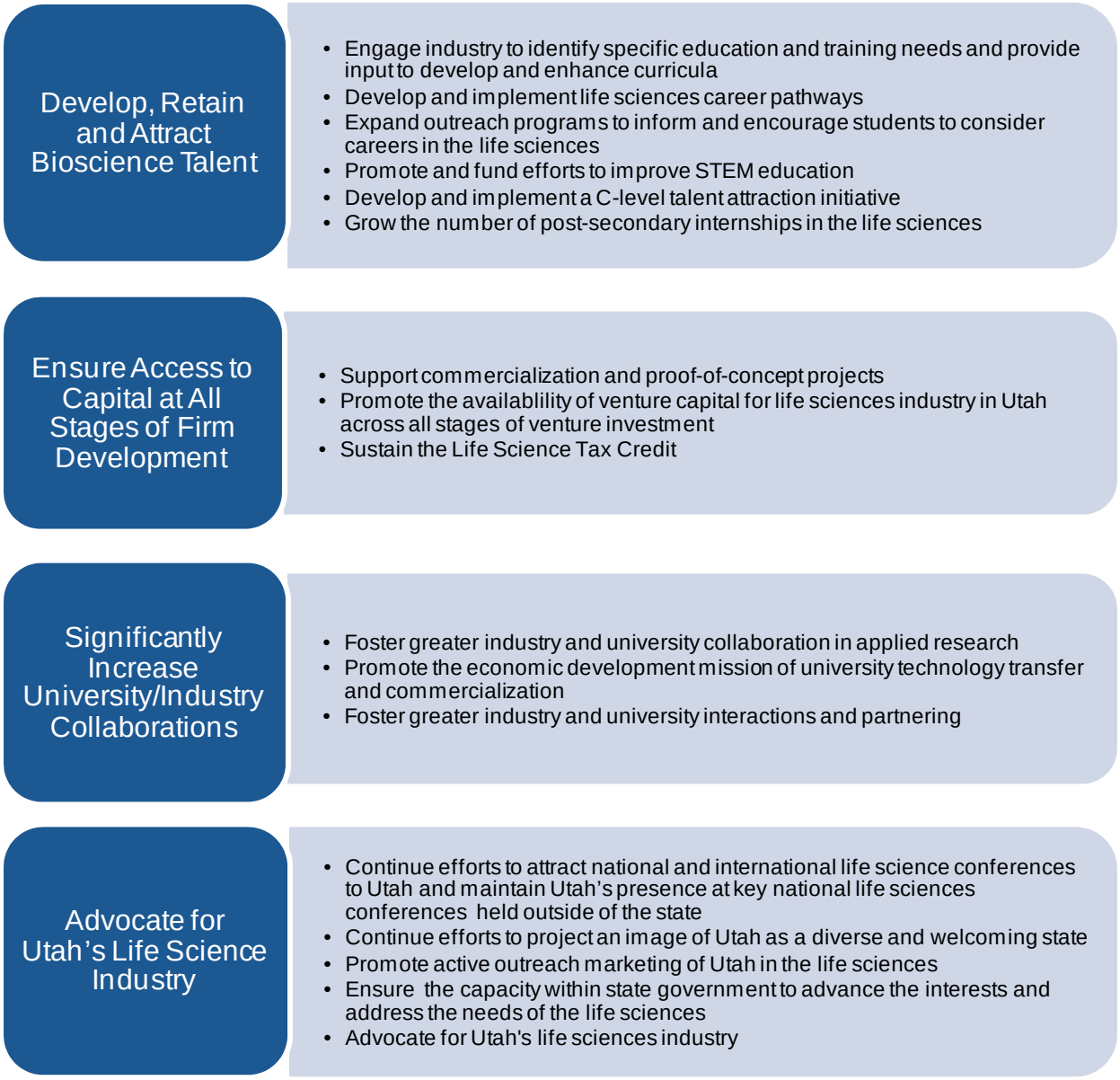
In order to significantly accelerate the growth of Utah's life sciences industry cluster, the following issues must be addressed:

1. **Utah must put in place a comprehensive approach to advancing talent development in the life sciences disciplines.** This effort must work at each level of the talent pipeline from K–12 to post-secondary education to workforce development, seeking out ways to create linkages through promoting STEM education, career pathways, internships, and employer guided curriculum and certificates, among other actions.
2. **Actions must be undertaken to address life-science companies' capital needs.** For Utah, the need is across all stages of life-science firm development from proof-of-concept to seed funding to more formal rounds of venture capital investment.
3. **Utah should better leverage its university research base by maximizing industry/university collaboration.** Such collaboration is needed not only to move research discoveries into the marketplace but also to help Utah's life-science companies move up the value chain so that they are producing higher value-added products and services.
4. **Utah should undertake a branding and marketing campaign to promote the state as a center for the life sciences.** These efforts need to raise the profile of Utah in the life sciences by making the state a destination for life-science business executives as well as address the image of Utah as a diverse and welcoming place. The success of these efforts depends upon having the staffing and resources in place to leverage the growing presence of life sciences in Utah.

Acceleration Strategies and Actions

Four strategies are proposed to accelerate the development of Utah's life sciences industry cluster. The four strategies and the specific actions to achieve them are shown in Figure 8.

Figure 8: Utah Life Sciences Acceleration Strategies and Actions



Develop Retain and Attract Life-Science Talent

RECOMMENDATION #1: ENGAGE INDUSTRY TO IDENTIFY SPECIFIC EDUCATION AND TRAINING NEEDS AND PROVIDE INPUT TO DEVELOP AND ENHANCE CURRICULA.

In Utah, as elsewhere, life-science business executives indicate that they have difficulty finding qualified candidates across a range of occupations. This suggests that the state's educational institutions do not have sufficient information on the skills that are needed or the demand for different types of education and training programs. In addition, resources are limited to initiate new course and degree offerings.

Utah will need both a long-term and short-term strategy to address the educational gap. Over the long term, Utah needs a bioscience workforce effort that has the resources to work alongside education and training providers to help create the programs, curriculum, instructional labs, and teacher professional development that respond to the specific needs of the life sciences industry. This effort should leverage industry data available through targeted industry surveys and regularly collected data by the department of workforce services. It should also seek to streamline the process of customized training and industry feedback to educational institutions.

In the short-term, it is important for Utah's post-secondary institutions to work with Utah's bioscience industry to remedy urgent educational needs in quality regulatory affairs, quality assurance, clinical trials coordination, engineering-process development and health bio-informatics. Educational institutions should explore expanding or developing partnerships with industry associations and societies (e.g., UTC, Intermountain Biomedical Association, MD4, American Society of Quality Salt Lake City, or the Regulatory Affairs Professionals Society). The focus of this effort should include post-secondary students, but also targeted continuing education for current industry employees.

RECOMMENDATION #2: DEVELOP AND IMPLEMENT LIFE SCIENCES CAREER PATHWAYS.

Despite the presence of many educational programs in Utah, life-science business executives report that they have difficulty filling some positions locally; demand for skilled workers will only increase as the industry grows. It is recommended that Utah develop a coordinated and systematic statewide approach to developing life sciences career pathways and workforce development in the life sciences disciplines. A preliminary life-science career pathway is included in the Appendix. This should build upon current program articulations for biotechnology and associated life-science degree programs across high schools, community colleges and 4-year degree colleges. Existing programs may need to be expanded or new programs established to meet any gaps identified in the career pathway. The development of the career pathways should be done in conjunction with partners such as UtahFutures.org or the Utah Career and Technical Education Career Pathways project to create greater student and advisor visibility and to improve integration into current state projects.

A variety of programs in Utah designed to educate students for careers in the life sciences industry offer a base to grow and expand additional career pathway programs in the life sciences. Salt Lake Community College (SLCC) has a Biotechnology Program that provides the knowledge and skills needed to operate in a life-

science laboratory environment. Students can receive an Associate of Applied Science or Associate of Science degree in Biotechnology. Students receiving the latter can transfer to Utah Valley University's 4-year BS in Biotechnology program. To make it easier for students to complete the 4-year program, UVU faculty members teach classes on the SLCC campus. Classes are also offered at the UVU campus. UVU's biotechnology program has been in place since 2007.

SLCC and the Granite Technical Institute offer a biomanufacturing program that train college and high school students respectively. The core focus of the college program is on quality systems and regulations that pertain to the biotechnology industry. The high school program emphasizes training in quality systems and regulation as they apply to the medical device industry and analytical testing (safety and ingredient characterization) for dietary supplements and natural products. What stands out in this biomanufacturing program is that high school students in the program have an articulated pathway to complete a certificate, diploma, or Associate of Applied Sciences degree. With the criticality of the regulatory hurdle for industry growth, stackable certificate and degree programs should be developed and articulated with all Utah higher education institutions.

The Utah State University Center for Integrated Biosystems offers intensive training programs in biotechnology and bioprocessing, as well as a five-day summer academy for high school students, a symposium for 7th to 12th grade science teachers, and tours for high school classes.

BioInnovations Gateway (BiG) is a unique program that seeks to incubate life-science companies while training the next generation of life-science workers. It includes a 25,000 square-foot facility located on the property of Granite Technical Institute (GTI) that is equipped with a wet lab, a rapid prototyping lab, a computer-assisted design lab and a clean room. GTI's biomanufacturing program is aligned with SLCC's biomanufacturing program and provides instruction for high school students, who spend part of the day at their home school and part of the day at BiG participating in industry-sponsored internships. BiG also functions as a business incubator, providing space and support for up to 7 start-up life-science companies. The companies are encouraged to use students, both high school and community college students, to work with them. This not only provides the students with hands-on experience but builds their entrepreneurial skills by exposing them to the process of starting a business.

Another program at BiG is BioInnovate in which student teams undertake design projects for private companies. Essentially, BioInnovate is a student-run product development enterprise, operating like a private contract research organization. Through the program, students in GTI's biomanufacturing program learn to operate in a GMP environment. Another innovative effort that focuses on educational opportunities for college students to work on advancing new medical product prototypes is BioDesign at the University of Utah, in which bioengineering students work with clinical partners from the medical school to develop and commercialize biomedical products and related technologies.

RECOMMENDATION #3: EXPAND OUTREACH PROGRAMS TO INFORM AND ENCOURAGE STUDENTS TO CONSIDER CAREERS IN THE LIFE SCIENCES.

The first step in filling the life-science talent pipeline is to interest students in science, math, and engineering and inform them about possible careers in the life sciences disciplines. Experiential learning and career awareness programs, which can range from field trips, summer camps, workshops and internships, are designed to accomplish this. Such programs are widespread across the country. A study prepared by Battelle in 2009 found that every state had one or more experiential learning and outreach programs in the sciences and the majority of states had programs focused on biosciences.[3] While the programs were numerous, most were grant-funded and, as a result, often come and go as grants end at one institution and begin at another. Many outreach programs, such as summer camps, reach only a small number of students on an annual basis; many focus on servicing high-achieving students with an already-established interest in science or math.

A similar situation exists in Utah. Individual institutions, including museums, colleges, and universities, offer science outreach programs, but many of these programs struggle to maintain funding and are able to reach only a small number of students and their parents. Weber State University is particularly active in terms of outreach activities. Its Museum of Natural Science offers Science Saturdays that allow families to participate in hands-on activities. Science in the Parks is offered in downtown Ogden in order to reach a larger number of people, including more disadvantaged students. The college also has a seminar series, S4, which is designed to interest high school and junior high school students in science. The University initiated Science Moms, a pilot program that showed mothers activities they could do at home with their children. Despite a high level of interest in these and other programs, funding has been cut during the last several years due to pressures on the University's overall budget. Other colleges and universities offer similar programs.

In Salt Lake City, The Leonardo offers a contemporary, hands on science, art, and culture center to provide students and the broader community a unique, interactive approach to fusing science, art, and culture. Through immersive exhibits, real-life labs, and community workshops, students get a hands-on experience to advance their interests in science and technology. Dr. Mario Capecchi, a Nobel Laureate from the University of Utah, serves as the senior advisor at The Leonardo involved in reviewing the programming and exhibits in The Leonardo. In this capacity and along with his staff, he provides advice on The Leonardo's plans through periodic meetings, generates ideas and suggestions on concepts and intellectual resources to fulfill the mission, and works closely with The Leonardo to bring real science from the labs at the University of Utah to the community.

Another important initiative is Utahfutures.org, a one-stop career information system for students, parents, and school counselors, as well as for those already in the workforce. It features assessments to help identify a student's interests and aptitudes, career exploration and planning tools, education and training options, and the ability to create a personalized online portfolio to store information generated by a student in their career exploration efforts, among other features. Outreach programs should be supported and marketed. Life-science companies can help by both providing financial support but also by encouraging employees to participate in such efforts. Consideration should be given to creating a program, specifically focused on the life sciences and ways should be explored to make such activities available to a larger number of students. Finally, stronger

relationships should be forged between secondary and post-secondary partners that result in stronger and more effective outreach programs that are sustained over the long-term.

RECOMMENDATION #4: PROMOTE AND FUND EFFORTS TO IMPROVE STEM EDUCATION

A prerequisite to filling the life-science talent pipeline is to make sure students are well prepared in science, technology, engineering, and math (STEM) to enable them to pursue degrees that would allow them to become life-science workers. Life-science company executives expressed their concerns in interviews about the quality of Utah's science and math education at the K–12 level both in terms of finding future workers but also because it impacts a firm's ability to attract highly skilled workers who may be unwilling to relocate to Utah if they think there are deficiencies in public education.

An analysis conducted by the Utah Foundation examined Utah's performance on National Assessment of Educational Progress (NAEP) math, science, and reading tests from 1992 to 2009.[4] They found that:

- Utah is underperforming compared to states with similar demographics in terms of its math, science and reading scores. When compared to a number of peer states, Utah most often ranks last in these tests.
- In addition to persistently low peer-state rankings over the past two decades, Utah's national ranking on these exams has fallen significantly.
- Utah's math scores have increased over the years, but other states' scores have risen faster, resulting in a lower ranking for Utah. Reading scores have been flat for Utah during this period. Utah's science scores are higher than the national average, but at the bottom of peer states.

Utah has in place a number of efforts to improve STEM education. The **Utah Science and Mathematics Education Consortium** is a coalition of the science deans from all the colleges and universities in the state, teamed with representatives from public education and industry. The goal of this group is to promote programmatic cooperation among the state's institutions of higher education, as well as to develop a better dialog between higher education and K-12 schools.

The **Center for Science and Mathematics Education** (CSME) was established in fall, 2009 at the University of Utah within the College of Science and the College of Education. The mission of CSME is to facilitate, coordinate, and implement collaboration between the two Colleges as well as with Utah school districts. The Center was created to address the need for employees with highly developed mathematics science and engineering knowledge and skills, as well as, to satisfy the critical need for more qualified teachers of mathematics and science.

Weber State's **Center for Science and Math Education**, as described above, offers a large number of outreach programs designed to interest students in math and science. Utah State University is in the process of creating a **STEM Education Center** which will conduct R&D on STEM education, offer professional development opportunities for STEM teachers, and perform outreach activities aimed at interesting students in STEM.

The **Utah Education Network** has created a **STEM** (Science, Technology, Engineering, and Mathematics) **website**, which connects students, teachers, counselors, parents and others to the many programs, opportunities, and services available to students who wish to participate in math and science programs. Many opportunities are embedded in the State's colleges and universities. Others are offered by the network of museums, libraries, and similar organizations that provide programs that complement formal studies in math, science, and engineering.

The Utah Technology Council (UTC) has been particularly active in advancing STEM programs and policies in Utah. Through the efforts of UTC staff and member companies, strong industry support has been mobilized to advance major STEM initiatives in Utah, including enhancing the state's graduation requirements in math and science, establishing Utah's Engineering Initiative and support for funding of these and other STEM initiatives. What is needed going forward is a coordinating effort to maximize the reach and effectiveness of ongoing STEM activities. It is particularly important to create a single place where input and guidance from industry can be shared across programs, and industry awareness and engagement can be promoted. It is also important to have a statewide, sustained outreach and marketing effort of the state's many STEM related programs to students and their parents. This is especially important for the emerging efforts to educate and train students in career opportunities in the life sciences.

At the same time, these efforts in STEM education are critical to advancing the attractiveness of Utah in recruiting high skilled life-science workers and their families to the state. A particular concern expressed in the industry interviews is that as K–12 education in Utah is slipping, Utah becomes less competitive for attracting life-science workers, especially compared to other fast growing life sciences hubs, such as Maryland and North Carolina.

RECOMMENDATION #5: DEVELOP AND IMPLEMENT A C-LEVEL TALENT ATTRACTION INITIATIVE.

To maintain a vibrant and dynamic life sciences industry cluster, Utah should develop an initiative for the attraction of C-level life-science talent to Utah. The infusion of external industry leadership provides new blood and fresh thinking to local problems. This strategy may build upon the success of the BioDevice and BioPharma research talent attraction strategies of the Utah Science Technology and Research (USTAR) initiative. Key participants would include the Economic Development Corporation of Utah and the Governor's Office of Economic Development.

Other states and regions have been active in this area. For instance, in the early 1990s, when Maryland was first advancing the development of a commercial biotechnology industry, that state used grant programs to assist both existing companies expanding in the state for the relocation expenses of senior management as well as emerging biotechnology companies needing to strengthen their management teams. More recently, the Pittsburgh Life Sciences Greenhouse has operated an Executive-in-Residence program since 2002 that has assisted nearly 300 emerging companies with accessing proven C-level leadership. This Executive-in-Residence program provides executive talent to help form companies; subject matter experts to guide companies; executives to run companies; and program managers and directors to help companies grow.

RECOMMENDATION #6: GROW THE NUMBER OF POST-SECONDARY INTERNSHIPS IN THE LIFE SCIENCES.

Internships for college students offer essential skill-specific job training and mentors that can ease the transition into the work world. A 2010 survey of the 884 industry members of the National Association of Colleges and Employers revealed that of those who have an internship or co-op programs, more than 50 percent of interns accept full-time employment with the company for which they interned.[3]

Utah higher education institutions are eager to advance internships for their students, but are reporting difficulties in finding companies willing to take students as interns. The Utah System of Higher Education along with industry representatives should seek to identify the barriers to creating life-science internships. An incentive fund should be established to reduce the cost of creation and participation in life-science student internships. Other states have effectively used incentives to scale up internships. Ohio's Third Frontier Program has an internship program that reimburses up to 50 percent of the intern's wages, or no more than $3,000 for a 12-month period. Ohio targets its internships to a set of high-growth technology industries such as biosciences, information technology, instruments and controls, advanced materials, and advanced energy, among others. Since 2002, more than 3,000 students have participated. More recently, Nebraska enacted InternNE internship grants providing a 40 percent match, up to $3,500 per internship, for up to 10 interns per year (5 at a single location). Up to $1.5 million is allocated for the statewide Nebraska program and it is targeted to a certain set of eligible businesses.

The identification of best practices in internship models and development of strategies to grow internship opportunities should be a key component of the STEM education activities described in recommendation #4.

[3] See web site for National Association of Colleges and Employers

Ensure Access to Capital at All Stage of Life-Science Firm Development

RECOMMENDATION #7: SUPPORT COMMERCIALIZATION AND PROOF-OF-CONCEPT PROJECTS.

Proof-of-concept (PoC)/commercialization funding refers to funds needed to do the additional prototype development, clinical research, and testing and development needed to prove that a technology has commercial potential. Such funding is usually provided in the form of a grant that does not require any repayment. Such funding is often needed to commercialize university-owned as well as industry-owned IP at the highest value—and sometimes to license it at all—as such technology usually is at an early stage of development and requires additional studies, sometimes involving animal trials, or in the case of engineering discoveries, a working prototype, before it can be shown to have commercial value. It also is often necessary to surround the original discovery with additional patents and protections. Such activities are almost never fundable through conventional peer-reviewed federal programs and, if they are to take place at all, must be separately funded under a different set of criteria focused mainly on economic development. Companies seeking to develop a product or process also often require funding for PoC activities.

Thirty-three states reported offering PoC funding in 2008. About half of these programs fund university principal investorgators and/or for-profit companies. Ten or slightly less than a third of the programs fund university principal investigators only in an active university/industry partnership, and eight fund for-profit companies only in an active industry/university partnership. Seven programs provide funding to university technology transfer programs.

One of the longest standing efforts by the Georgia Research Alliance demonstrates the potential impact these proof-of-concept centers can have. Since its launch in 2002, the results of GRA's VentureLab program have been outstanding. A total of $19 million of state funds have been used since 2002, resulting in the formation of 108 active companies, $460 million of additional funds attracted, and over 500 jobs created.

In 2010, USTAR used funding obtained through the American Recovery and Reconstruction Act (stimulus funds) to support PoC projects at Utah universities. In 2011, GOED administers a Technology Commercialization Innovation Program, which provides matching grants of $40,000 that can be used to support commercialization activities. The grants are awarded on a competitive basis to university researchers and/or companies that have licensed technology from a Utah university that they plan to commercialize.

From discussions with biosciences industry, Battelle learned that the size of the TCIP grants limit the program's usefulness for life-science companies given the resources required to develop and test new products. It is recommended that the state consider expanding this program to allow for follow-on and/or larger awards.

RECOMMENDATION #8: PROMOTE THE AVAILABILITY OF VENTURE CAPITAL FOR LIFE SCIENCES INDUSTRY IN UTAH ACROSS ALL STAGES OF VENTURE INVESTMENT.

From Battelle's interviews with life-science entrepreneurs and CEOs of start-up companies, it was reported that it is very difficult to obtain formal venture capital in Utah. There are few locally-based venture funds, particularly funds available for investment in life-science companies, and it is difficult to attract capital from out-of-state without a local partner.

In the past, the Utah Fund of Funds has had a strong track record of success in attracting qualified venture capital funds to consider investments in Utah-based companies. The Fund has invested $120 million in 28 venture funds, 7 of which are Utah-based. The Fund uses an innovative contingency tax credit mechanism to raise capital, and given its strong performance over the years, no tax credits have been used—so there has been no cost to state government. As reported in its 2010 annual report, 42 Utah companies have received $277 million of venture investments from venture capital funds involved in the Utah Fund of Funds program. These investments have created an estimated 1,200 new Utah jobs and have had a multiplier impact of an additional 4,100 Utah jobs. The average salary of these jobs created stands at $71,000, nearly twice the Utah average.

The Utah Fund of Funds is currently considering ways to advance additional investments in qualified venture capital funds to support new and emerging technology companies in Utah. These efforts are strongly needed and should be encouraged. The guidance from the life sciences industry interviews is that strong consideration should be given to attracting qualified venture funds that target life sciences companies.

A particular need in Utah that would be difficult for the Utah Fund of Funds to address is for seed capital funding of life sciences ventures. As noted earlier, Utah lags behind the U.S. average for seed and early stage investments in life sciences, though not in overall venture capital. This is not surprising since new start-up ventures in the life sciences stand quite distinct from other technology areas, such as information technology, in its product development process, regulatory requirements, and integration with existing life-science companies and the health care delivery system. Many states and regions have put in place dedicated life-science seed funds (e.g., Pennsylvania's regional Life Sciences Greenhouse Seed Funds, Indiana's BioCrossroads' Life-Science Seed Fund, and the BioGenerator Seed Fund in St. Louis).

To ensure a pipeline of such high-growth potential emerging technology companies, it is critical for Utah to have in place one or more seed funds that can move a business from concept to launch. Seed funds make equity or near-equity investments in early-stage companies, usually up to approximately $2 million. A number of states have used state dollars to create such investment funds. The Oklahoma Seed Capital Fund (OSCF), for example, is a state-appropriated investment fund that makes concept, seed and start-up equity investments in Oklahoma businesses. The fund makes concept investments, typically in the range of $50,000 to $200,000 and seed investments, typically less than $500,000. Co-investors are required for both types of financing. The funds can be used to develop intellectual property, complete market assessments, implement business operations, and recruit key members of the management team. The OSCF is administered by i2E, Oklahoma's statewide technology commercialization organization. In addition to making investments, i2E

provides comprehensive in-depth support to entrepreneurs, including helping them to become investment grade.

Utah has a constitutional prohibition against investing directly in a private company. A constitutional change would likely be required to allow the state to create a publicly-funded seed fund. This is a change that might be considered in light of Utah's desire to grow its technology clusters, and past precedent with the previous Centers of Excellence and current TCIP efforts. An alternative would be to encourage private investment in seed or venture funds or in companies directly by offering a tax incentive—but these are not as an efficient use of state resources as direct state investments since there is a transaction cost to converting tax credits to investment funds.

RECOMMENDATION #9: SUSTAIN THE LIFE SCIENCE TAX CREDIT

Tax incentives are a well tested and widely used approach for advancing life sciences industry development across the nation. In Utah, the Governor's Office of Economic Development offers three tax credits for eligible life-science and technology companies. These tax credits are aimed at life-science companies that are creating revenue producing new products or services or investors in emerging life sciences companies in the state, and so provide sources of capital to continue to grow the life-science business in Utah.

The New State Revenues Policy credit is particularly innovative in offering life-science companies generating sales from new product or service development projects to receive a refundable tax credit associated with the state revenues generated by that project for its first three years. The state revenues considered are broad-based, including corporate or partnership income tax, wage withholding tax and the state portion of sales tax. This is a powerful incentive for growing, innovative life-science companies to recoup investment for its new product development activities. It has a key feature of being performance based in rewarding those life-science companies generating sales and state revenues from successful new projects. By being refundable this credit also provides a tangible economic benefit for those emerging life-science companies that may not yet be generating an overall business profit since they can still receive a benefit from withholding tax and the state portion of sales tax generated.

The life-science investor tax credits includes a nonrefundable tax credit of up to 35 percent of the amount of investment issued over three years and a nonrefundable tax credit of up to 5 percent of the capital gains from the sale of a qualifying investment. These life-science investor tax credits are targeted to companies capitalized at under $2.5 million and having at least 50 percent of its employees in the State of Utah. By providing funding at the front end of the investment and then the resulting capital gain, this investor tax credit provides a broad-based incentive to invest.

The power of tax credits is their predictability, so that businesses and their investors can plan for its availability. It is important that Utah sustain its efforts in its life sciences and technology tax credits to maximize their effectiveness.

Significantly Increase Collaboration Between University Life Sciences Researchers and Utah Life Sciences Companies

RECOMMENDATION #10: FOSTER GREATER INDUSTRY AND UNIVERSITY COLLABORATION IN APPLIED RESEARCH.

Industry and university collaboration in applied research is a critical means for tapping the research capabilities of universities and achieving commercial success. Often industry needs university expertise to test and develop prototypes using existing company intellectual property. In other cases, industry can identify technology solutions needed to address specific market needs, but require university expertise in how to solve the technology need.

The most common and, in Battelle's experience, one of the most effective means of fostering greater university and industry interaction is to provide matching grants for research partnerships. Such programs help build relationships between academic researchers and companies and provide support for activities that may lead to investments of private capital and commercialization of new technologies.

As of 2008, 28 states had matching grant programs that provide an incentive for firms to support research projects at local research institutions.[5] It is important to note that these matching grant programs provide funding only to public universities, but are directed by the requirements set out by the industry partner providing matching support. Most of these programs solicit applications on a competitive basis and make awards to projects that are both technically sound and likely to have a positive economic development impact. All of the programs require that the company shares the cost of the research project, which is conducted by faculty and students on behalf of the company. The level of cost share can vary. Some programs vary the matching requirement based on the size of the company.

Along with a standard matching grant program for industry sponsored applied research projects at public universities, there was strong support in the industry focus group discussions to also have matching grants available to companies receiving federal Small Business Innovation Research (SBIR)/Small Business Technology Transfer Research (STTR) grants to fill the gaps in federal funding between Phase I and Phase II with university research support. This would be a natural fit for those companies receiving STTR funding, which already have in place university research and development partners. For those companies receiving more traditional SBIRs, which do not have in place explicit university research and development partners, it would be beneficial to be able to tap university resources for testing and prototype assistance in going from Phase I to Phase II.

A leading state in the use of matching funds for SBIR/STTR awards has been Kentucky, which matches both phases of the federal program: up to $100,000 for Phase 1 federal awards and up to $500,000 per year (for up to two years) for Phase 2 federal awards. The Kentucky Science and Technology Corporation, which manages the SBIR/STTR matching program, reports that 117 companies have been assisted, with a leverage of $3.4 in federal funding for every $2 in state funding. In addition, a number of out of state companies with SBIR awards have relocated to Kentucky to participate in the program.

RECOMMENDATION #11: PROMOTE THE ECONOMIC DEVELOPMENT MISSION OF UNIVERSITY TECHNOLOGY TRANSFER AND COMMERCIALIZATION.

Utah's universities place a high priority on technology transfer and commercialization. Across many performance measures of technology transfer and commercialization, Utah's universities stand out among its peers nationally. At the same time, Utah's universities have taken steps in the past five years to restructure their technology transfer and commercialization activities and to encourage and support faculty seeking to commercialize their research findings.

- The U of U reorganized its commercialization efforts in 2005 creating the position of Vice-President for Technology Venture Development who oversees the office that manages the university's intellectual property as well as all commercialization activities on campus. The U of U has spun off 132 start-up companies since 2005 and in both 2009 and 2010 was the number one university in the country in terms of spinning-off university-based start-up companies.
- USU created an Office of Commercialization and Regional Development, which brings together all of the university's commercialization activities including outreach to regional campuses. The office includes Commercial Enterprises, a one-stop shop for industry partnerships and IP development.
- BYU's Technology Transfer Office's mission is to commercialize technology and technical software developed at the university. BYU also has a separate Creative Works Office that seeks to take advantage of commercial applications in areas of instructional materials, software and creative works such as art, music and other media. BYU ranked among the top 10 universities in spinning-off university-based start-up companies in 2010.

Still, there is continued need for improvement in how Utah universities work with industry. As noted previously, companies consistently reported in interviews with the Battelle project team that it is often difficult to work with universities on sponsored research projects and to license technologies due to the terms and conditions imposed by the universities. This issue was further highlighted in the industry strategy focus group meeting held inJanuary.

This issue goes to the heart of whether Utah universities can be strong partners in working with Utah business in advancing innovation and the state's economic development. This issue is also not unique to Utah and its universities. Across the nation, there is a strong concern and focus to advance predictable and streamlined university technology transfer and commercialization processes in which industry can take ownership of intellectual property from sponsored research with universities and for licensing technologies. For instance, the University of Minnesota allows a company sponsoring research at the university to pre-pay a fee and receive an exclusive worldwide license at a set royalty rate. Similarly, the University of North Carolina has put in place the Carolina Express License, which offers a "standard" license agreement for university developed technology to ease the burden and time requirements on negotiations, involving reimbursement of patent expenses and standard royalty fees.

One approach to improve relations would be to form an industry/university panel charged with preparing a White Paper that reviews in more detail the issues surrounding the process as well as the terms and conditions involved in licensing and research contracts at Utah's public universities. The focus of this panel would be to

promote efforts to harmonize terms and conditions, with an effort towards more simplification, while also seeking to streamline the process so that it can work more at the speed of business. The panel should also establish performance benchmarks and on-going oversight to ensure the continual improvement needed to advance more business friendly contracting and licensing with universities, which is critical to enable industry-university partnerships.

RECOMMENDATION #12: FOSTER GREATER INDUSTRY AND UNIVERSITY INTERACTIONS AND PARTNERING.

Complementing the changes in policies and processes in working with existing industry is the need to raise the awareness of current university and industry research efforts and interests. Interviews with researchers and industry CEOs suggested that Utah would benefit from increased communication across disciplines and institutions, as well as between universities and industry.

Utah is fortunate to have a base of well established, globally competitive life-science companies, many of which would have the resources to more easily introduce new products or services into the market than universities through new start-ups. However, most life-science business executives indicated in interviews with the Battelle project team that they were unaware of current research that might be under way at the universities in areas of interest to their firm or of potential technologies that might be available for licensing. Similarly, university researchers would benefit from learning about specific market needs and ongoing research and development efforts by industry.

This strategy identifies four life-science strategic opportunity areas that offer the greatest potential for growing Utah's life sciences industry cluster. To capitalize on these opportunities and realize the economic development potential of developing these areas, researchers from Utah's colleges and universities, medical centers, and industry should get to know one another and begin to find ways to collaborate.

One mechanism that can be used to foster such relationships is the development of technical networks or scientific interest groups composed of industry, academia, and resource providers. Battelle recommends that Utah create technical networks focused on medical devices, drug development, personalized medicine, and nutritional supplements. Typically these efforts are housed in the life sciences industry association advancing this sector, but they can also be driven and/or supported by the state economic development cluster lead for the life sciences.

Battelle also suggests that broader technology partnering events be held to showcase university-developed IP that is available for commercialization, as well as highlight innovative industry capabilities. Ideally, this effort would involve multiple approaches. These could be in-person events that would feature presentations by faculty and industry as well as provide opportunities for one-on-one meetings between researchers and industry representatives. These meeting could also feature networking and poster sessions as well as tours of facilities to make businesses and university faculty more aware of the facilities, equipment and expertise available in Utah.

An excellent example is the Tech Tuesday networking events presented by the Technology Commercialization Office (TCO) at the University of Utah. These special events feature guest speakers, local inventors, and entrepreneurs. More of these types of engagements are needed, and typically these are activities supported by

the Utah Technology Council, the state's life sciences industry association, in partnership with the state's universities.

Another approach Battelle recommends to make companies more aware of university research activities is to create a talent bridge between university research programs and industry through access to graduate students and post-doctoral fellows through internships and fellowships. Both Connecticut and the North Carolina Biotechnology Center advance these types of collaborations.

Advocate for and Market Utah's Life-Science Assets

RECOMMENDATION #13: CONTINUE EFFORTS TO ATTRACT NATIONAL AND INTERNATIONAL CONFERENCES TO UTAH AND MAINTAIN UTAH'S PRESENCE AT KEY NATIONAL LIFE SCIENCES CONFERENCES HELD OUTSIDE OF THE STATE.

It is important that Utah raise its profile nationally in the life sciences. One excellent mechanism is the use of conferences that bring leading life-science researchers and business people to Utah to provide an opportunity to make them aware of the state's life-science assets and resources. An excellent example is the National Summit on Personalized Health Care that has been held annually for the past 4 years in Deer Valley, Utah. This conference brings together top leaders from throughout the world who are working to develop a roadmap that will develop and integrate individualized/personalized health care approaches, technologies and practices into patient care.

Conferences should be targeted that would highlight Utah's life-science technology opportunity areas. For example, given the large number of international natural products companies whose corporate headquarters are located in Utah, the state should actively seek to become a major hub for natural products conventions and conferences. This should span conferences of individual firms as well as broader industry-wide conferences involving university faculty active in this area from Utah and across the U.S. There might also be efforts to tap the growing emphasis on personal nutritional plan strategies, and Utah could host a national conference and forums on this effort.

More generally, Salt Lake City should actively pursue small and medium life-science conferences. This can include areas of focus outside of Utah's strengths to focus on topics of importance for advancing Utah's life sciences industry. For instance, Utah has had a hard time attracting persons with expertise in quality assurance and regulatory affairs in the life sciences industry; thus, Utah should actively seek and host national conferences focused on these disciplines to expose experts in these field to Utah, and partner with higher education to develop degree and certificate programs that meet the local talent need in these two areas.

Ways to advance this action would be to survey existing life-science companies and their employees to identify national trade association memberships they maintain and then launch a recruiting campaign to attract their national conferences to Utah. While it is important that this action tap the broad life sciences community in

Utah, there is a need to identify a primary contact (individual or organization) that will organize the efforts to identify, attract, host and retain life-science national/international conferences and conventions.

While Utah targets the small to mid-sized life-science conferences, it is also important that Utah maintain a presence at the larger national and global life-science conferences held outside of the state. Of particular importance is maintaining a Utah presence at the annual BIO conference, which is a key meeting place of the life sciences industry from across the globe.

RECOMMENDATION #14: CONTINUE EFFORTS TO PROJECT AN IMAGE OF UTAH AS A DIVERSE AND WELCOMING STATE.

An issue that was raised by life-science business leaders in interviews was that it is often difficult to recruit workers to Utah because of the image that many people have of Utah; that the state lacks diversity and is dominated by one culture, that of the Mormon Church. A Quality of Life survey conducted by the Utah Foundation asked Utahans about the quality of life factors that were important to them and how they rated the state on each factor. A social factor that ranked high in importance and lower in quality was whether people were accepting of differences, meaning that people highly valued this factor but felt that people were not as accepting as they would like. This is an area of concern in a state like Utah where there is a large racial majority, as well as a religious majority.

Utah's minority groups are growing, however, and the state is becoming more diverse. But while the social fabric may be changing, perceptions usually lag reality. As a result, efforts are needed to both boost tolerance and to promote Utah's image as a diverse and welcoming state. Initiatives are under way to do this. The Alliance for Unity seeks "to foster a more unified community in which all Utahans are included and valued, regardless of affiliations or differences."[18] The UTC has a campaign, "Why Utah" that includes videos that feature people from diverse backgrounds who have relocated to Utah talking about their positive experiences. Such efforts should be continued and expanded.

Among the ideas for broadening these efforts would be to work with LDS and other religious denominations to encourage their Utah-based congregations to be accepting of differences. It would also be helpful to engage non-LDS employees directly in recruiting new employees from out of state. These engagements could include opportunities to meet and greet and provide personal testimonies of day-to-day-life in Utah to dispel misconceptions. There should also be a concerted effort in company literature, websites and recruiting materials to tap into the "Why Utah" effort emphasizing Utah's natural beauty and resources (outdoor life, recreational assets, etc.), the state's strong, well-educated workforce and talent pipeline and the great urban life style of downtown SLC with easy access to the great outdoors life Utah offers.

RECOMMENDATION #15: PROMOTE ACTIVE OUTREACH MARKETING OF UTAH IN THE LIFE SCIENCES.

Utah's life-science community should work to develop a common theme that can be incorporated in state marketing materials as well as those of the various organizations that are committed to growing the state's life sciences sector. An active earned media campaign of magazine and newspaper articles and television stories should be considered following release of this strategy. Having articles appear in newspapers and magazines nationwide describing Utah's life sciences industry can play a key role in changing the state's image. The

placement of such articles, however, will require an active public relations outreach to key publications and the active development of news stories.

An internal education campaign also could be initiated to increase Utah policymakers', legislators' and residents' knowledge and understanding of the life sciences; the role the industry plays in Utah's economic future; the opportunities they provide for them and their children; and the role new discoveries and inventions will play in their lives. It will be particularly important to brief legislators so that they understand the impact that state investments in education and R&D can have on their constituents. The internal campaign should be aligned with the branding and marketing campaign, but it will require a distinct set of activities. These could include public service announcements, a life-science ambassador program to reach schools and local civic organizations, and regular monthly and quarterly events. It is also important to engage state legislators through specific forums and outreach activities involving the life-science community.

RECOMMENDATION #16: ENSURE CAPACITY WITHIN STATE GOVERNMENT TO ADVANCE THE INTERESTS AND ADDRESS THE NEEDS OF THE LIFE SCIENCES.

The life sciences industry face very distinct and challenging development issues even from other technology areas, such as information technology, in its product development process, regulatory requirements, specialized talent needs and interactions with universities and the health care delivery system. If Utah is to accelerate the growth and competitiveness of its life sciences industry cluster, it needs to recognize these specialized needs of life sciences industry development and ensure a strong voice focused solely on the life science industry within state government to best align and coordinate state development approaches.

One approach widely used by other states that are actively pursuing specific industry cluster developments is to have a dedicated life sciences industry cluster staff person within the state's economic development agency. Utah's current structure does not have a person whose sole responsibility is life sciences industry cluster development. With the dedicated focus of a life sciences industry cluster staff person, Utah would benefit from a focused resource able to work consistently and uninterrupted with the life sciences industry, while the industry will have a "go to" person to address specific issues and opportunities.

Creation of this position has the potential to align all stakeholders including GOED, USTAR, the life sciences industry association/UTC, Chambers of Commerce, higher education, and education to strengthen this significant and growing economic driver for the State of Utah.

RECOMMENDATION #17: ADVOCATE FOR UTAH'S LIFE SCIENCES INDUSTRY.

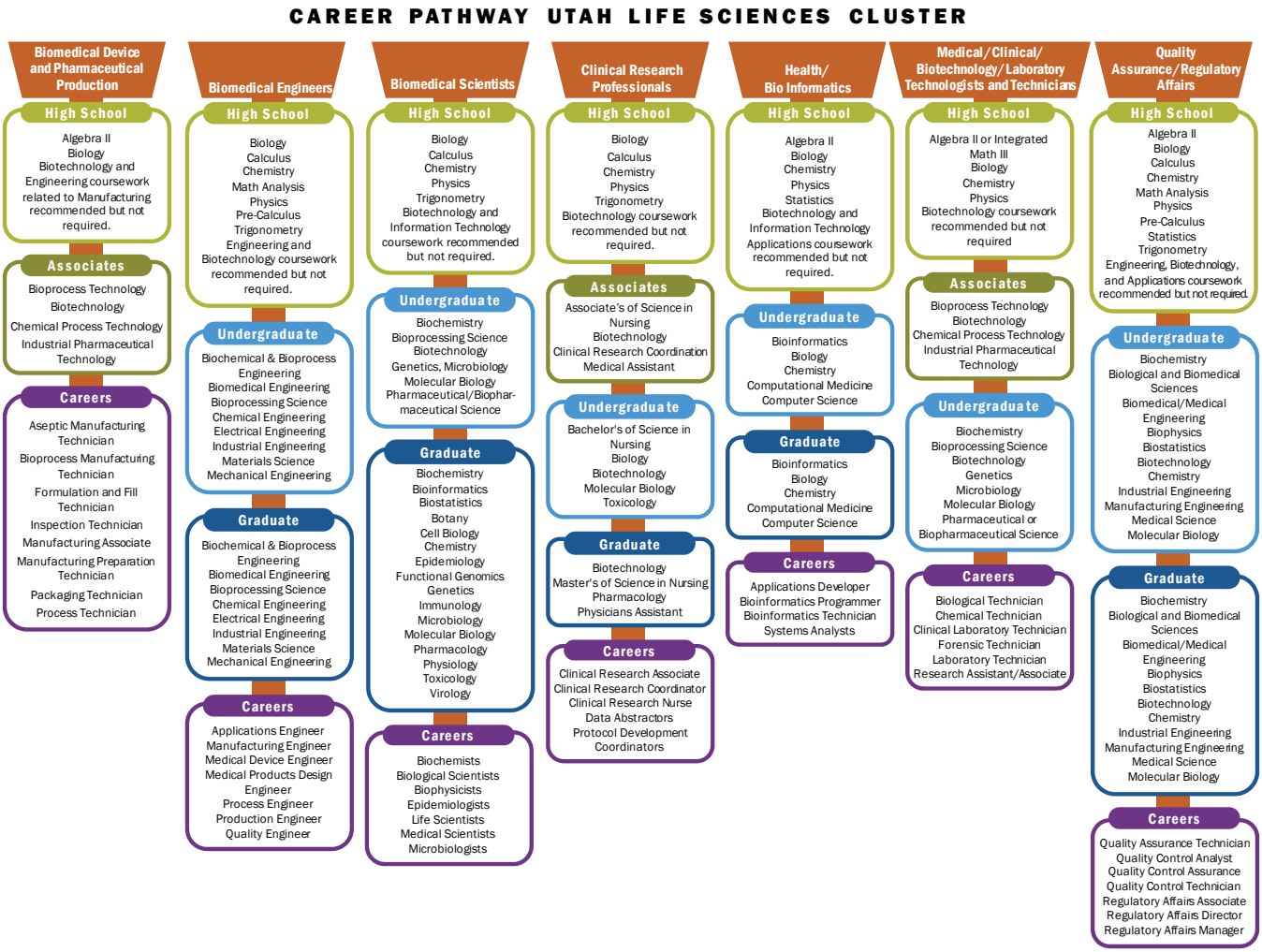
Interviews with industry business executives repeatedly emphasized the need to engage, as a state, in the national policy debates surrounding FDA regulatory reform. Specific issues currently in the current spotlight include the proposed tax on medical devices however; ever-changing national policies can have huge positive or negative impacts on this sector. Without a dedicated position to monitor and help influence national policy and align state efforts, Utah will remain a silent voice and industry may suffer.

Utah Technology Council and other industry organizations should lead the effort to join forces with other states to further emphasize the need to engage, as a state, in the national policy debates surrounding FDA

regulatory reform. Specific issues currently in the spotlight include the proposed tax on medical devices. However; any of the many changing national policies can have a huge positive or negative impact on this sector . Without a dedicated effort to monitor and help influence national policy and align state efforts, Utah will remain a silent voice.

Appendix A: Utah Life Sciences Career Pathways

The following lays out an initial set of career pathways for occupations in the life sciences, identifying the education requirements and career opportunities. It was developed by first searching for national models on career pathways from a variety of national organizations, including the American Medical Technologists (AMT); the American Society for Quality (ASQ); the Association fo Clinical Research Professionals; Bio-Link, the National Advanced Technological Education (ATE) Center of Excellence for Biotechnology and Life Sciences; the National Association of State Directors for Career Technical Education Consortium; and the North Carolina Biotechnology Center. It was further refined by comments from industry and educators. This initial depiction of life sciences career pathways is provided as a starting point for Utah to integrate linkages across its state to better develop and create link programatics offerings to workforce opportunities. As the Life Sciences UCAP is implemented, this initial set of life sciences career pathways will be enhanced and refined.



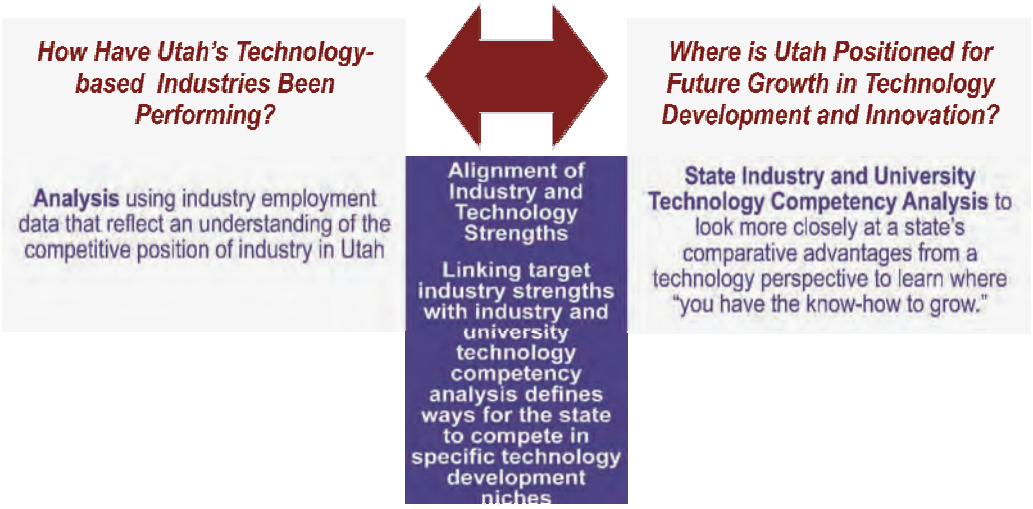
Appendix B: Detailed Life Sciences Industry Cluster Profile

Battelle examined the life sciences industry cluster in more depth to determine how it is positioned for technology-based growth. The analysis considered the alignment of two key factors:

- Detailed industry-level analysis of specific product and service focus areas found in Utah to identify the drivers of the state's life sciences industry sector. [6]
- Technology competencies found within the life sciences industry cluster**.** As mentioned earlier, technology competencies represent focused areas of "know how" where there is demonstrated critical mass in Utah.
    - The starting point for defining these technology competencies is "Innovation Themes" identified from the cluster analysis of patents and publications in Utah from 2006 through June of 2011. Battelle then validated the extent of these Innovation Themes based on both industry and scholarly activities by considering:
    - Focus of scholarly excellence in Utah based on performance of research universities in peer-reviewed publications analysis.
    - Identified research centers and major research activities found across Utah's research universities, based on Battelle's interviews and review of major grants and web sites.
    - Level of technology deployment as suggested by value-added per employee for detailed industry segments.
    - Presence of innovative, emerging technology firms, based on firms receiving venture capital funding between 2006 and 2011 (2nd quarter).

By linking core technology competencies to specific industry strengths within an overall industry cluster, it is possible to define not only where a state has demonstrated the ability to advance industry development but where it has the know-how to continue to fuel innovation and further distinct areas of growth. This approach is depicted in Figure B1 below.

Figure B-1: Alignment of Detailed Industry Strengths and the Presence of Core Technology Competencies



Findings

The life sciences industry cluster is both specialized and growing in Utah. In 2010, it stood at 22,983 jobs, which translates into an 82 percent higher employment concentration in Utah than the nation. Employment in the life sciences industry also grew a healthy 25.8 percent over the 2001 to 2010 period, which included a 9.2 percent increase in jobs from 2007 to 2010, a period which includes the deep recession years of 2008 and 2009 and the nascent recovery that began in 2010.

The life sciences industry is composed of four subsectors including Medical Devices and Equipment; Drugs and Pharmaceuticals; Research, Testing, and Medical Labs; and Biomedical Distribution. It is important to note that the life sciences industry is closely related to but not the same as healthcare industry, which provides direct clinical services. The breadth of Utah's life sciences industry cluster comes across, since all of these subsectors of the life sciences are specialized and growing rapidly in Utah.

Detailed Industry Strengths

At the detailed industry level, there are 11 industries within the life sciences industry cluster with 500 or more jobs in 2010—all are either specialized and/or growing in employment.

Six of the 11 detailed life sciences industries are both specialized and growing, including:

- **Pharmaceutical Preparation Manufacturing**, with 3,892 jobs in 2010, a 105 percent higher concentration in Utah than the nation and growing in jobs by 25.6 percent from 2001 to 2010.
- **Medical Laboratories**, with 3,237 jobs in 2010, a 127 percent higher level of concentration in Utah than the nation and growing in jobs by 91.0 percent from 2001 to 2010.
- **Drugs Wholesalers**, with 2,194 jobs in 2010, a 53 percent higher level of concentration in Utah than the nation, and increasing in jobs by 28.6 percent from 2001 to 2010.

- **Irradiation Apparatus Manufacturing**, with 1,270 jobs in 2010, a 10.7 times higher level of concentration in Utah than the U.S. and increasing in jobs by 21.9 percent from 2001 to 2010.
- **Medicinal and Botanical Manufacturing**, with 760 jobs in 2010, a 330 percent higher level of concentration than the nation, and increasing in jobs by 7.8 percent from 2001 to 2010.
- **Dental Equipment and Supplies Manufacturing**, with 684 jobs in 2010, a 394 percent higher level of concentration than the nation, and increasing in jobs by 11.6 percent from 2001 to 2010.

Four of the 11 detailed life sciences industries are growing in jobs, but not yet specialized in the concentration of industry employment in Utah.

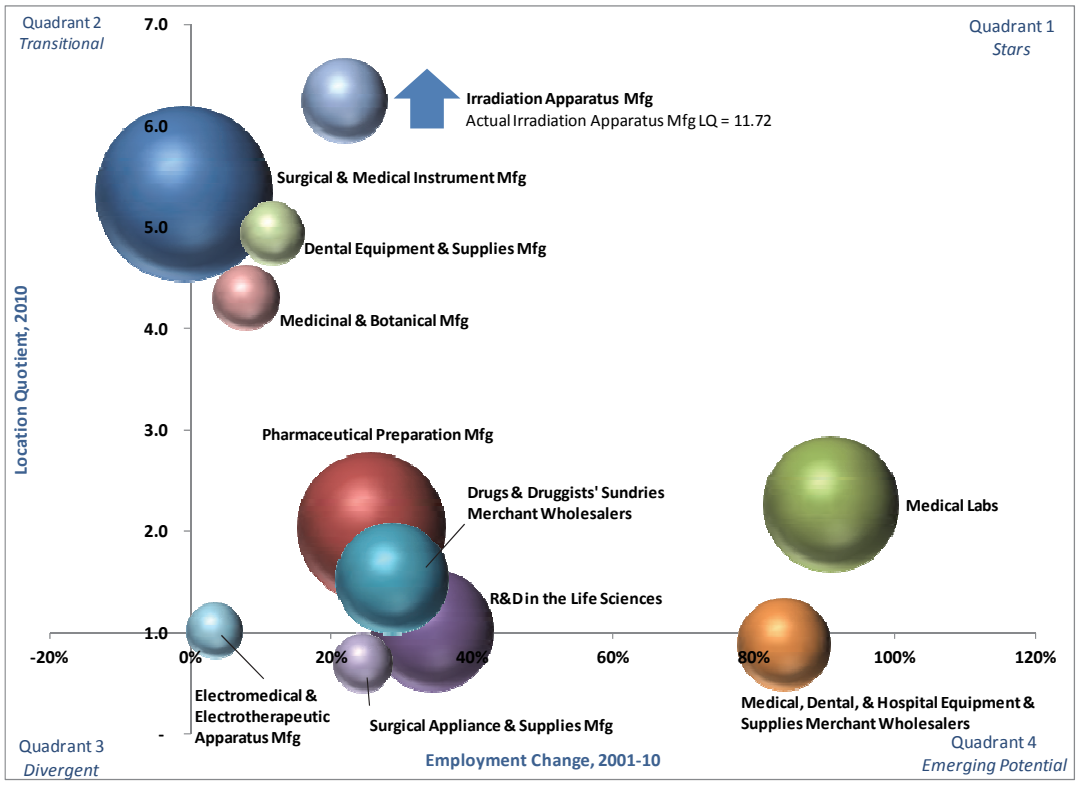
- **Life Sciences Commercial Research & Development**, with 2,620 jobs in 2010, increasing in jobs by 34.3 percent from 2001 to 2010, but only equal to the U.S. level of employment concentration.
- **Medical, Dental, and Hospital Equipment and Supplies Wholesalers**, with 1,489 jobs in 2010, increasing in employment by 84.3 percent from 2001 to 2010, but 11 percent lower in concentration than the nation.
- **Surgical Appliance and Supplies Manufacturing**, with 611 jobs in 2010, increasing in jobs by 24.4 percent from 2001 to 2010, but still 30 percent less concentrated in Utah than the nation.
- **Electromedical and Electrotherapeutic Apparatus Manufacturing**, with 540 jobs in 2010, increasing in jobs by 3.4 percent from 2001 to 2010, but only equal to the U.S. level of employment concentration.

One of the 12 detailed life sciences industries is highly specialized, but not growing in jobs:

- **Surgical and Medical Instrument Manufacturing** with 5,490 jobs in 2010, a 434 percent higher level of concentration in Utah than the nation, but a decline in jobs of 1.0 percent from 2001 to 2010.

It is important to note that natural products and dietary supplement firms fall in various industry classifications including pharmaceuticals, biomedical distribution industries, and other food and beverage categories.

Figure B-2: Detailed Utah Life Sciences Industries: Employment, Growth, & Specialization Trends, 2001–10



Note: Includes only those detailed Life Sciences industries with at least 500 jobs in Utah in 2010.

Linkage to Core Technology Competencies

The cluster analysis of patents and publications identified 17 Innovation Themes in the life sciences industry in Utah, which group into four categories:

- Medical Devices
- Disease Research, Drugs and Pharmaceutical Related
- Basic Biological Research Related
- Natural Products and Dietary Supplements.

Table B-1: Innovation Themes Within the Life Sciences Industry Cluster

Breadth of Patent and Publications Clusters Number of patent and publication records in cluster groupings from 2006 to 2011	**Presence of Institutional Research Centers and Other Specialized Strengths**	**Publications** ***High Share/High Quality:*** Greater than 1.5% of U.S. pubs and greater than 40% higher citation impact than U.S. average ***High Share Only:*** Greater than 2% of U.S. pubs ***High Quality Only:*** Greater than 50% higher citation impact than U.S. average	**Productivity** Relative level of 2009 value added per employee for detailed industry sector in Utah compared to U.S. average	**Presence of Detailed Industry Strengths** ***Current Industry Strength*:** both specialized (greater than 20% higher industry employment concentration in 2010) and growing in jobs from 2001 to 2010) ***Emerging Industry Strength*:** Growing in jobs from 2001 to 2010, but not specialized ***Specialized Industry Strength*:** Specialized, but lost jobs from 2001 to 2010	**Presence of Venture-backed Companies** Number of companies receiving venture funding from 2006 to 2011
MEDICAL DEVICE					
Surgical Instruments, Equipment and Devices: 1310 Cardiovascular & Pulmonary Diseases and Conditions: 805 Medical Imaging: 325 Musculoskeletal Implants and Devices: 268 Ion Channel Research: 165	U of U Cardiovascular Research and Training Institute (cardiac electrophysiology + vascular physiology) U of U Bioengineering Department, including focus on cardiovascular, neural engineering, and novel devices (Utah BioDesign)	***High Share/High Quality:*** Biomaterials: Imaging Sciences Cardiovascular Systems Rehabilitation ***High Share Only:*** Orthopedics Biomedical Engineering	Surgical Appliance and Supplies Manufacturing: 87% Dental Equipment and Supplies: 83% Irradiation Apparatus Manufacturing: 75% Surgical and Medical Instrument Manufacturing: 75% Electromedical and Electrotherapeutic Apparatus Manufacturing: 62%	***Current Strengths:*** Irradiation Apparatus Manufacturing Dental Equipment and Supplies Manufacturing ***Emerging Strengths:*** Surgical Appliance and Supplies Manufacturing Electromedical and Electro-therapeutic Apparatus Manufacturing ***Specialized Industries:*** Surgical and Medical Instrument Manufacturing	9 VC backed firms in Medical Devices 2 VC backed firms in Medical Imaging
DISEASE RESEARCH AND PHARMACEUTICALS					
Drug Development & Discovery: 794 Cancer Research and Treatments: 1,143 Neurosciences: 1,226 Infectious Diseases, Pathogens and Immunology: 727 Reproductive Medicine: 482 Diabetes: 294 Transplantation and Stem Cell Therapies: 226 Ophthalmology: 180	U of U College of Pharmacy among national leaders in medicinal chemistry, pharmaceutics and pharmaceutical chemistry Eccles Institute of Human Genetics Huntsman Cancer Institute, with close ties to medicinal chemistry and human genetics BYU Cancer Research Center U of U Molecular Medicine Utah State University's Center for Integrated Biosystems with focused research efforts in flu vaccine production, bioprocessing technologies and reproductive immunology.	***High Share/High Quality:*** Pharmacology Toxicology Transplantation Urology & Nephrology ***High Share Only:*** Ophthalmology Clinical Neurology Obstetrics & Gynecology Neurosciences Physiology Rheumatology ***High Quality Only:*** Geriatrics Peripheral Vascular Disease Endocrinology & Metabolism	Life sciences Commercial Research & Development: 79% Pharmaceutical Preparation Manufacturing: 57% Medicinal and Botanical Manufacturing: 57%	***Current Strengths:*** Pharmaceutical Preparation Manufacturing Drugs Wholesalers Medicinal and Botanical Manufacturing ***Emerging Strengths:*** Life Sciences Commercial Research & Development	4 VC backed firms in Medical Therapeutics

Continued on next page

BASIC BIOTECHNOLOGY RESEARCH					
Genomics and Biologics: 1,269 Molecular Genetics and Cell Biology: 386	Department of Pathology and ARUP Laboratories, a national clinical and anatomic pathology reference laboratory Huntsman Cancer Center Molecular Medicine CTSA with key focus on biomedical informatics and pilot projects	***High Share/High Quality:*** Human Genetics & Hereditary Development Biology Med Lab Tech ***High Share Only:*** Biochemistry and Molecular Biology: ***High Quality Only:*** Cell Biology:	Medical Laboratories: 88% Life sciences Commercial Research & Development: 79%	***Current Strengths:*** Medical Laboratories ***Emerging Strengths:*** Life Sciences Commercial Research & Development	5 VC backed firms in Biotechnology-related Diagnostics
NATURAL PRODUCTS AND DIETARY SUPPLEMENTS					
209	USU Applied Nutrition Research Program	***High Quality Only:*** Nutrition and Dietetics:	Medicinal and Botanical Manufacturing: 57%	***Current Strengths:*** Medicinal and Botanical Manufacturing	

Possible Opportunities for Future Growth

From interviews with industry executives and university leadership as well as ongoing input from the life sciences industry cluster acceleration strategy steering committee supported by the Utah Higher Education System, Battelle suggests several specific niches stand out for Utah in life sciences:

- Novel medical devices
- Molecular diagnostics and personalized medicine
- Molecular medicine, drug discovery, development and delivery
- Natural products and dietary supplements

Novel Medical Devices

A medical device is a product involved in diagnosis, therapy, or surgery for medical purposes. It involves a wide range of products from imaging to monitoring to implants to surgical instruments and equipment. A major revolution is taking place in advanced medical devices involving the introduction of advanced technologies to improve tools for diagnosis and treatment and the development of biological substitutes to restore, maintain, and improve tissue, bone, and organ condition. Some of the leading technologies being adapted for use in innovative medical treatments and diagnostics include microelectronics, imaging, nanotechnology-related biosensors, robotics, and biopolymer materials.

HOW IT BUILDS ON UTAH STRENGTHS

- Utah has a broad medical device industry including strong specializations in Surgical and Medical Instruments, Dental Equipment, and Irradiation Apparatus, and emerging strengths with growing employment in Electromedical and Electrotherapeutic Devices, and Surgical Apparatus and Supplies Manufacturing.
- A number of emerging Utah biomedical companies advancing new therapeutics received venture financing from 2006 through the first quarter of 2011, including:
    - Amedica Corporation, for developing orthopedic devices
    - Catheter Connections, Inc., for developing medical infusion accessory products
    - Coherex Medical, for developing medical devices for addressing structural heart diseases including closure systems that stimulate tissue in-growth and to close left atrial appendage
    - Control Medical Technology, for developing aspirator devices where fluids are aspired through small devices
    - Health Line International, for developing vascular access and infusion therapy products
    - Vital Access Corporation, for developing surgical and interventional technologies for vascular access
    - White Pine Medical, with a focus on cardiovascular, orthopedics and neurostimulation devices
    - Maxtec, Inc., for manufacturing oxygen analyzers and monitors.
- A wide number of Innovation Themes are found in Medical Devices including:
    - Surgical Instruments, Equipment and Devices
    - Musculoskeletal Implants and Devices
    - Cardiovascular and Pulmonary Conditions
    - Medical Imaging
    - Transplantation and Stem Cell Applications
    - Ophthalmology
    - Ion Channel Research

Utah stands out in a wide number of publications fields related to medical devices including: Biomaterials, Transplantation, Cardiac and Cardiovascular Systems, Imaging Sciences, Biophysics, Biomedical Engineering, Orthopedics and Neuroimaging.

Among the many university research centers and focus areas found in Medical Devices are:

- University of Utah Cardiovascular Research and Training Institute, which is focused on electrophysiology seeking to understand how both normal and diseased hearts generate electrical signals and how these signals modulate contraction. Such knowledge provides a basis for more effective treatment of arrhythmias and other disease states that affect ion movements across heart cell membranes.
- University of Utah Bioengineering Department, which brings an active focus on cardiovascular devices, neural engineering and through its Utah BioDesign the advancement of novel devices through close collaborations with surgeons and other clinicians.
- University of Utah Scientific Computing and Imaging Institute, which is a renowned center of excellence with a core focus on biomedicine applications to address new image analysis techniques, visualization of complex and rich scientific data, advancement of computational and numerical methods for scientific computing and development of scientific software environments. SCI is home to the NIH funded Center for Integrative Biomedical Computing (CIBC) which is dedicated to producing open-source software tools for biomedical image-based modeling, biomedical simulation and estimation, and the visualization of biomedical data.
- University of Utah Nano Institute, which is working on biomedical device innovation to improve the performance of implants and promote functional regeneration of tissue, along with work on polymer innovations for gene therapy and enhanced delivery of therapeutics.
- Brigham Young University, with a focused effort on Compliant Mechanisms, which can advance novel biomedical devices through the use of microelectromechanical and nanoelectromechanical systems.

Molecular Diagnostics and Personalized Medicine

The growing knowledge of genomic and proteomic data linked to specific disease states or predisposition is fueling the rise of molecular diagnostics. Molecular diagnostics is not only a new tool for medical diagnosis, it is a gateway to personalized medicine. As we near the end of the first decade of the 21st century, the promise of personalized medicine remains largely ahead of us. Molecular diagnostics are integrally linked with the personalized medicine approach of pharmacogenomics, which considers how genetic variations or differences in gene expression affect the ways in which people respond to drugs. In fact, these personalized medicine approaches to understanding of how genetic variations affect reactions to different drugs can enable diagnostic tests to be established that can guide doctors to make more informed and cost-effective medication decisions for their patients.

HOW IT BUILDS ON UTAH STRENGTHS

- Utah stands out in the strength of its medical testing laboratories, with 3,237 jobs in 2010, a specialization 127 percent higher than the national average, strong growth of 91 percent from 2001 to 2010 which well outpaces national growth for the industry.
- Of particular note for Utah is the presence of ARUP Laboratories, one of the nation's leading clinical and anatomic pathology reference laboratory. ARUP Laboratories was created in 1984 by the University of Utah School of Medicine's Department of Pathology, and has established itself as a role model for bridging the gap between academic medicine and successful business enterprise. Not only does ARUP Laboratories process more than 30,000–35,000 specimens of blood, fluid, and tissue samples are processed each day, it has become a world leader in laboratory research and development having developed more than 400 clinical laboratory tests and improving and validating more than 200 others, but having an extensive publications track record in peer-reviewed journals.
- While in vitro diagnostics does not stand out as a specific industry in Utah, the state is home to Myriad Genetics, one of the nation's leading molecular diagnostic companies with a broad number of diagnostic procedures related to cancer detection and treatment, including for breast, colorectal, melanoma, pancreatic and prostate cancers, along with risks from chemotherapy. Emerging diagnostic companies found in Utah include Sorenson Genomics, focused on verifying human identity and relatedness, and Lineagen, with a diagnostic on the market for autism and ongoing scientific programs in the areas of multiple sclerosis (MS) and chronic obstructive pulmonary disease (COPD).
- A number of emerging Utah biopharmaceutical companies advancing new diagnostics and testing products and services received venture financing from 2006 through the first quarter of 2011, including:
    - Numira Biosciences, LLC, a specialty contract research organization focused on analysis of tissue samples for disease progression, drug efficacy and drug side effects.
    - Lineagen, Inc., focused on molecular diagnostics for autism.
    - Axial Biotechnology, focused on the use of genetics and minimally invasive fusionless devices to diagnosis human spine diseases.
    - BioMicro Systems, Inc., developing micro fluid analysis technologies for genomics, proteomics and diagnostics research
    - Sera Prognostics, providing diagnostics to predict and manage pregnancy complications.
- The Corptech database of technology companies identifies medical diagnostic equipment as a strength in Utah, with 19 firms headquartered or with operating units in Utah, comprising 3 percent of all firms nationally.
- Genomics and biologics stand out as a distinct Innovation Themes based on the cluster analysis of patents and publications. The types of activities include methods for detecting genomic variations;

approaches to genotyping; microarray assays; biomarkers and molecular diagnostics; and population based gene association studies.

- Utah stands out in a number of fields closely associated with molecular diagnostics, including Medical Laboratory Technology and Biochemistry and Molecular Biology
- Among university research centers and focus areas there are several of note in this area of molecular diagnostics and personalized medicine:
    - The University of Utah's Nano Institute is focused on the development of nano-based diagnostics and therapeutics through the application of nanobiosensors for early disease detection, chromatography, and immunoassay applications.
    - The Huntsman Cancer Institute is a National Cancer Institute designated Cancer Center noted for its contributions in identifying the genetic mutations responsible for inherited susceptibility to a number of cancers, including neurofibromatosis, colon cancer, breast cancer, and melanoma. This strength of the Huntsman Cancer Institute is closely tied to the Department of Human Genetics at the University of Utah noted for its model systems work in genetics research involving C. elegans, drosphila, mice, and zebrafish.
    - The NIH funded University of Utah Center for Clinical and Translational Science, represents a collaboration with Intermountain Healthcare, University Health Care, Utah Department of Health and the Salt Lake City Veterans Administration. The Center is building on the university's strengths in genetics and bioinformatics to bring promising bench science into practice.
    - Brigham Young University, which also has faculty research ongoing in molecular diagnostics including:
        - Development of lab-on-a-chip tools to detect and quantify clinically relevant biomolecules
        - Development of new bioarrays for tissue analysis using mass spectroscopy in collaboration with the La Jolla Institute for Molecular Medicine (LJIMM).
    - Utah Population Database of The Church of Jesus Chris of Latter-Day Saints (the Mormon Church) is a rich source of genealogical records on more than 7 million people. UPDB is composed of an extensive set of family histories. It has been linked to the state's cancer registry, inpatient discharge data for all hospitals in Utah and medical records from the enterprise data warehouses of the University of Utah Hospitals and Clinics and from Intermountain Health System, including ICD9 diagnoses, pharmacy data, medical imaging, radiology and pathology reports. So it offers a very powerful tool for epidemiological, public health and health outcomes research. One continued area of development is to associate a biospecimen bank with UPDB to enable it to become an even more valuable resource for genomic analysis.

Molecular Medicine; Drug Discovery, Development and Delivery

With the recent advances in genomics and biotechnology, a new era of molecular medicine is revolutionizing the development of drugs from the traditional trial and error approach to a more predictive and systematic use of detailed information about the operations of cells and molecules to pursue more focused interventions on disease processes. In particular, the use of advances in genomics and proteomics combined with improved disease model systems and computerized or "in silico" high throughput screening is transforming our understanding of the structure and function of genes and proteins and leading to improved ability to identify new potential targets of intervention for diseases. An important use of in silico drug development is assisting in the pharmacological study of drugs to improve drug design for absorption, distribution, metabolism, excretion, and toxicity.

Drug delivery is also being advanced through the use of polymer-based drug delivery systems and nanotechnology. Advances in polymer science have led to the development of several novel drug-delivery systems, including biodegradable polymers that can degrade into non-toxic forms in the body, highly absorbent and responsive hydrogels that can be used as biosensors as well as in wound healing and tissue scaffolding, and novel supramolecular structures able to deliver biologics. Often involved in novel polymers, but also useful in other materials for drug delivery, are advances in nanomaterials. Nanomaterials have a number of functions in drug delivery such as encapsulation to protect the drug and prevent it from reacting with non-targeted tissues during transport, and as functional drug carriers in targeted delivery systems. Nanosized particles have higher rates of diffusion and solubility, the ability to penetrate the blood-brain barrier, lower immune rejection rates, better digestibility, and more precise timed release and thus increased efficacy. The key value of nanotechnology in drug delivery is the potential to make drugs more effective at lower doses, at minimal or no toxicity, and help convert drug candidates that otherwise are poorly soluble in water into viable products.

HOW IT BUILDS ON UTAH STRENGTHS

- In industry development, Utah has performed well across industries comprising the biopharmaceutical sector, including Pharmaceutical preparation manufacturing, Medicinal and botanical manufacturing, and Life-science Commercial R&D.
- A number of emerging Utah biopharmaceutical companies advancing new therapeutics received venture financing from 2006 through the first quarter of 2011, including:
    - Cognetix, focused on pain pharmaceuticals
    - Inflabloc Pharmaceuticals, developing anti-inflammatory therapeutics
    - Prolexys Pharmaceuticals, focusing on cancer and cardiovascular conditions
    - MediProPharma, focusing on central nervous system drugs
    - Q Therapeutics, focusing on central nervous system drugs based on glial progenitor stem cell therapeutics

- A wide number of Innovation Themes emerge in disease research, drug-related basic research and pharmaceutical development found in Utah, based on an analysis of the content of patents and publications, including:
    - Neurosciences
    - Cancer
    - Drug Development and Delivery
    - Infectious Diseases, Pathogens and Immunology
    - Diabetes
    - Molecular Genetics and Cell Biology.
- In scholarly activity Utah stands out in a number of fields based peer-reviewed publications and related citations over the 2005 to 2009 period including: Pharmacology/Pharmacy, Organic Chemistry, Genetics & Heredity Toxicology Biochemistry and Molecular Biology, Neurosciences, Medicinal Chemistry, Cell Biology, Endocrinology and Metabolism
- The University of Utah, as the state's academic medical center, has a number of specific research centers and colleges that stand out in their excellence:
    - The University of Utah College of Pharmacy is one of the top National Institutes of Health funded colleges of pharmacy, nationally recognized in medicinal chemistry, pharmaceutics and pharmaceutical chemistry spanning drug discovery, evaluation, delivery and outcomes research.
    - The Huntsman Cancer Institute is a National Cancer Institute designated Cancer Center noted for its contributions in identifying the genetic mutations responsible for inherited susceptibility to a number of cancers, including neurofibromatosis, colon cancer, breast cancer and melanoma. It also has an active experimental therapeutics research thrust and is building capacity for early phase clinical trials.
    - The University of Utah Molecular Medicine Program is an interdisciplinary effort to support and train physician researchers, who are critical to advancing novel treatments for a variety of human diseases and conditions, including cardiovascular and diabetes/metabolism. It is closely aligned with the clinical departments at the University of Utah, the Department of Human Genetics and the Utah CTSA. It also organizes the core faculty to support the MD-PhD program, Summer Medical Research Program, Howard Hughes Medical Institute med-to-grad PhD track and other NIH funded training programs.
- Brigham Young University also has active biopharmaceutical-related research efforts underway including:
    - The BYU Cancer Research Center involving 17 faculty from across the Colleges of Physical and Mathematical Sciences, Life Sciences, Health and Human Performance, and Engineering and Technology, working on cancer-related drug and diagnostic discovery, cancer biochemistry, cancer genetics, cancer immunology and cancer epidemiology and

bioinformatics. Among its most active programs are screening for anti-cancer molecules, use of DNA microwires for cancer detection and genetic processes involved in cell division.

- Other biomedical research underway at BYU includes: Research into genetic risk factors for Alzheimer's disease; Research into targeting AMP-activated protein kinase for prevention and treatment of type 2 diabetes; and Research into HIV treatment to address reservoirs or sites where HIV escapes intervention by drugs or the immune system.

Natural Products and Dietary Supplements

According to the Dietary Supplement Health and Education Act of 1994, a dietary or nutritional supplement is any product that contains one or more dietary ingredients such as a vitamin, mineral, herb or other botanical, amino acid, or other ingredient used to supplement the diet. Dietary supplements come in a variety of forms: traditional tablets, capsules, and powders, as well as drinks and energy bars. Popular supplements include vitamins D and E; minerals like calcium and iron; herbs such as echinacea and garlic; and specialty products like glucosamine, probiotics, and fish oils. Dietary supplements are not food additives (such as saccharin) or drugs. It is estimated by the NIH Office of Dietary Supplements that Americans spend about $25 billion a year on dietary supplements and at least 50,000 products are available that contain dietary supplements.

There is an active effort at the National Institutes of Health to investigate the potential roles of dietary supplements in promoting health and reducing the risk of chronic disease. Much of this work is done in concert with other NIH institutes and centers. In 2010, 89 NIH-supported projects focused on the health impacts of dietary supplements for conditions such as age-related disease, anti-cancer activity, bone health, inflammatory disease prevention, asthma, cardiovascular disease, heart failure, sickle cell disease, malaria, maternal and child health, obesity, and diabetes, among other health conditions.

HOW IT BUILDS ON UTAH STRENGTHS

- A detailed listing compiled by the Utah Technology Council identified over 100 natural products and dietary supplement companies in Utah. It is estimated that these Utah natural products and dietary supplement companies account for up to 20 percent to 30 percent of the entire U.S. market.
- While there is not one single industry classification for these natural products and dietary supplement companies, the strength of this area for Utah is revealed in examined more standard industry databases:
    - 17 of Utah's natural products and dietary supplement companies fall into the Pharmaceutical Preparation Manufacturing industry, which is 105 percent more specialized than the nation, grew a robust 25.6 percent from 2001 to 2010, and reached 3,892 jobs in 2010.
    - Another 11 of the natural products and dietary supplement companies fall within the Medicinal and Botanical Manufacturing industry, which is 3.3 times more specialized in Utah than the nation and grew by 7.8 percent from 2001 to 2010, reaching 760 jobs in 2010.

- Utah comprises 4.6 percent of all vitamin companies found in the CorpTech database of technology companies.

- The nutrition supplement and functional foods area stands out as a distinct Innovation Theme based on the cluster analysis of patents and publications activities. The types of activities include research on the use of supplements to treat diseases, chemical analysis of nutritional content, probiotics, and impacts of fiber intake on weight reduction, and improved content of cheese production.
    - In scholarly activity, Utah stands out in nutrition and dietetics with 117 publications from 2005 to 2009, which represents 1.2 percent of all U.S. publications. Particularly impressive is that Utah is 174 percent higher in the level of citations per publication, a measure of quality of publications, than the national average.
    - A key new university resource in the area of nutritional supplements and functional foods is Utah State University's Applied Nutrition Research program, supported by USTAR. The Center is located in a newly constructed 110,000 sq ft building at the USU Innovation Campus with state-of-the-art metabolic kitchen and research facilities with medical staff in which clinical research can be conducted in collaboration with industry. Currently the Center works with food and natural product companies in and outside the state of Utah to help them better substantiate claims and identify new health-related properties for their products. Among the key research efforts under way at the Center includes identifying new bioactives—plant or animal compounds with health benefits that extend beyond any traditional nutritional value—that can fight obesity, type II diabetes and cardiovascular disease where the team can scale up their research, focus on gut biology and ways to control the appetite for dietary fat as well as the neurological and biological impacts of fatty food consumption and exercise on the brain as a determining factor for type II diabetes and obesity.

[1] A Location Quotient (LQ) is a metric used to gauge the relative concentration of jobs in a particular industry in the state relative to the nation. When the LQ is 1.2 or greater, the region is said to have a "specialization" in the industry.

[2] Revenues consist of the revenues of the life science cluster, estimated by IMPLAN based on employment, plus life science-related R&D expenditures by state academic institutions.

[3] Taking the Pulse of Bioscience Education in America: A State-by-State Analysis, A Report Prepared by Battelle in Cooperation with Biotechnology Industry Organization and the Biotechnology Institute, May 2009.

[4] School Testing Results: How Utah Compares to States With Similar Demographics. Utah Foundation, Report Number 697, September 2010.

[5] Technology, Talent and Capital: State Bioscience Initiatives 2008, www.bio.org/local.

[6] These detailed industries are the six-digit level industries found in the North American Industry Classification System (NAICS).

Utah System of Higher Education
60 South 400 West
Salt Lake City, UT 84101-1284

higheredutah.org

Battelle
505 King Avenue
Columbus, OH 43201

battelle.org

Governor's Office of Economic Dev.
State of Utah
324 South State Street, Suite 500
Salt Lake City, UT 84111

business.utah.gov

Department of Workforce Services
State of Utah
140 East 300 South
Salt Lake City, UT 84111

jobs.utah.gov

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: University of Utah – Sale of a Donated Residence in Milford, UT

Issue

The University of Utah desires to sell a donated residential property located at 840 South 500 West in Milford, Utah. The property does not serve the University's mission and would have been sold a decade ago, had it not been subject to a life estate interest. Details about the property are included in the attached request letter from the University. The University is requesting an exception to the policy that requires property to be at or above appraised value for a sale to be approved. They believe that the current offer of $30,000 is fair and reasonable because of the length of time the property has been on the market, its deteriorated condition, and lack of interest in the property. This item is placed on the Action calendar due to the request for a policy exception.

Commissioner's Recommendation

The Commissioner recommends that the Regents authorize the sale of this property.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

THE UNIVERSITY OF UTAH

August 28, 2012

Gregory L. Stauffer
Associate Commissioner, Finance & Facilities
Office of the Commissioner of Higher Education
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Dear Greg,

The University of Utah would like to sell a donated property located at 840 South 500 West in Milford, Utah. It is one of three properties donated to the University by Dr. David A. and Phyllis Symond in 2001. Two of the properties were approved for sale by the Regents in March 2002.The third property was the Symond's primary residence. The University was not at liberty to sell the property at that time because the donors had reserved a life estate interest, which entitled them to live in the home for the remainder of their lives.

Phyllis died in 2008 and Dr. Symond passed away in November 2010. The University thought the property had been approved for sale by the Regents in 2002 and listed the home for sale after Dr. Symond's death. However, it now appears this property was never approved for sale by the Regents. It has been listed for over a year and currently has a list price of $59,900. The real estate market in Milford is very depressed and this property is very run down. It needs a lot of work and the University has had three offers fall through. There is currently a solid offer of $30,000 for the property.

Having held the property since it was gifted to us 10 years ago, the University is requesting an exception to the Regents' requirement for a recent appraisal. Based on the length of time the property has been on the market and the lack of interest in the property, we think the current offer is a fair and reasonable one. On the advice of the local realtor, this is the most viable offer the University is likely to get.

It is a property that does not serve the University's mission. The proceeds from the sale will go to the David A. Symond, M.D. and Phyllis Symond Endowment Fund in the Department of Family and Preventive Medicine in the University of Utah's School of Medicine.

The University is requesting that the property be added to the Consent Calendar to be approved for sale at the upcoming Board of Regents meeting.

Sincerely,

Fred Esplin
Vice President, Institutional Advancement

c: Lorraine Olney
W. Ralph Hardy, Assistant Commissioner for Facilities Planning

Vice President
Institutional Advancement
201 South Presidents Circle, Room 201
Salt Lake City, Utah 84112
(801) 581-4088
FAX (801) 581-6892

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Snow College - Request for Differential Tuition for Bachelor of Commercial Music Degree

Issue

The Board of Regents holds statutory responsibility for setting tuition rates for Utah's public colleges and universities. Regents are asked to review and finalize the differential tuition request for the Snow College Bachelor of Commercial Music Degree.

Background

Snow College received Regent approval to offer a Bachelor of Music Degree in Commercial Music with emphases in Instrumental Performance, Vocal Performance, Music Production and Songwriting/Composition. The Bachelor's degree is intended to provide students with fundamental competencies in the core areas of music study, including: music theory, sight singing and ear training, piano proficiency, and individual musicianship. The commercial performance, production and music business components of the degree will further prepare students to succeed as musicians at every level.

As part of the original proposal for the new music program, a differential tuition rate was included in the Revenue and Expense Projection chart illustrating the financing of the proposed program (Appendix "D"). This chart is presented in this agenda item as Attachment 3. Snow College held a meeting with all music majors during spring semester 2012 and also, as required by state statute, a Truth in Tuition hearing during fall semester 2012. All students who attended the meeting and hearing who expressed sentiments on the proposed differential tuition were positive about the matter.

Proposal

A differential tuition of $270.00 per FTE per semester, representing 120% of regular tuition, is proposed for all resident and $984 per FTE per semester for all non-resident students enrolled in the Bachelor of Music in Commercial Music program. This differential will apply to all courses taken after the student *begins upper division course work* in the music program.

- Attachment 1: Resident & Non-Resident Tuition Schedule with Proposed Differential Tuition for the Bachelor of Music Degree

- Attachment 2: Notification of Truth in Tuition Hearing for Bachelor of Commercial Music Degree
- Attachment 3: Five Year Revenue (Sources) and Expense (Uses) Projection as presented in New Degree Proposal

Commissioner's Recommendation

The Commissioner recommends that the Regents approve the Differential Tuition for upper division course work for the Snow College Bachelor of Commercial Music Degree.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/PCM

Snow College
Resident Tuition
2012-13 School Year

Credit Hours	Regular Tuition	Music Degree Tuition (a)
0.5	$ 88.00	$ 106.00
1	$ 119.00	$ 143.00
2	$ 182.00	$ 218.00
3	$ 480.00	$ 576.00
4	$ 604.00	$ 725.00
5	$ 728.00	$ 874.00
6	$ 852.00	$ 1,022.00
7	$ 976.00	$ 1,171.00
8	$ 1,100.00	$ 1,320.00
9	$ 1,224.00	$ 1,469.00
10-20	$ 1,348.00	$ 1,618.00
21	$ 1,472.00	$ 1,766.00
22	$ 1,596.00	$ 1,915.00
23	$ 1,720.00	$ 2,064.00
24	$ 1,844.00	$ 2,213.00
25	$ 1,968.00	$ 2,362.00

Non-Resident Tuition
2012-13 School Year

Credit Hours	Regular Tuition	Music Degree Tuition (a)
0.5	$ 320.00	$ 384.00
1	$ 434.00	$ 521.00
2	$ 661.00	$ 793.00
3	$ 1,770.00	$ 2,124.00
4	$ 2,220.00	$ 2,664.00
5	$ 2,670.00	$ 3,204.00
6	$ 3,120.00	$ 3,744.00
7	$ 3,570.00	$ 4,284.00
8	$ 4,020.00	$ 4,824.00
9	$ 4,470.00	$ 5,364.00
10-20	$ 4,920.00	$ 5,904.00
21	$ 5,370.00	$ 6,444.00
22	$ 5,820.00	$ 6,984.00
23	$ 6,270.00	$ 7,524.00
24	$ 6,720.00	$ 8,064.00
25	$ 7,170.00	$ 8,604.00

(a) Music Degree Tuition - the differential rate will apply to all courses taken after the student begins upper division course work in the Music program

Truth in Tuition Hearing

September 12 , 2012 – 11:30 a.m.
Performing Arts Center – Concert Hall

Proposed Tuition Differential Increase for the Bachelor of Commercial Music Degree for the 2012-2013 Academic Year:

- Resident:
  - Second Tier: 20% ($270 per semester)
- Non-Resident:
  - Second Tier: 20% ($984 (per semester)

Proposed Fee Adjustments

- No increase in general fees is proposed.

Differential Tuition Impact on Full-time Students per Semester

- Resident students:
  - $270 Proposed by Snow College for additional cost for upper division coursework associated with the Bachelor of Commercial Music degree.

- Non-Resident students:
  - $984 Proposed by Snow College for additional cost for upper division coursework associated with the Bachelor of Commercial Music degree.

- Tuition at a Glance

Proposed Differential Increase at a Glance			
	Lower Divison	**Upper Division**	**Difference**
Resident tuition	$1,348	$1,618	$270
Non-Res. tuition	$4,920	$5,904	$984

- New rates become effective Fall Semester 2012.

Snow College
Bachelor of Music Degree in Commercial Music
Five Year Revenue (Sources) and Expense (Uses) Projections
Prepared 9-23-2011

	Base Year Existing Bud.	Projected Increase	Year 1	Projected Increase	Year 2	Projected Increase	Year 3	Projected Increase	Year 4	Projected Increase	Year 5
Students:											
FTE Enrollment for Lower Division Students (see Note 1)	80	4	84	4	88	4	93	5	97	5	102
FTE Enrollment for Upper Division Students (see Note 2)	0	34	34	30	64	3	67	3	71	4	74
Total Commercial Music Student Enrollment	80		118		152		160		168		176
Funding Sources:											
Existing General Fund Appropriation for Music Dept. (see Note 3)	$512,261		$512,261		$512,261		$512,261		$512,261		$512,261
Net Additional Tuition from Lower Division Students (see Note 4)		9,072	9,072	10,192	19,264	10,702	29,966	11,237	41,204	11,799	53,002
Net Additional Tuition from Upper Division Students (see Note 4)		92,534	92,534	87,363	179,898	9,319	189,217	9,785	199,001	10,274	209,275
One Time Pledged Donation		65,000	65,000								
Total Funding Sources	$512,261		$678,867		$711,423		$731,444		$752,466		$774,539
Funding Uses:											
Salaries & Wages (Full Time Personnel) (see Note 5)	$329,817		$329,817	$40,000	$369,817		$369,817		$369,817		$369,817
Benefits on Full Time Personnel	132,409		132,409	25,000	157,409		157,409		157,409		157,409
Additional Adjuncts Needed (see Note 5)	0	28,000	28,000	14,000	42,000		42,000		42,000		42,000
Adjunct Benefits	0	2,422	2,422	1,211	3,633		3,633		3,633		3,633
Current Expenses	46,073	2,304	48,377	2,419	50,795	2,540	53,335	2,667	56,002	2,800	58,802
Equipment Replacement	0	15,000	15,000		15,000		15,000		15,000		15,000
Travel	3,962	198	4,160	208	4,368	218	4,587	229	4,816	241	5,057
Total Funding Uses	$512,261	47,924	$560,185	82,838	$643,023		$645,781		$648,677		$651,718
Funding Sources in Excess of Uses:	$0		$118,683		$68,401		$85,663		$103,789		$122,821

Note 1: Base year enrollment for lower division students is 42 freshmen and 38 sophomores. It is expected that lower division enrollment will increase at approximately 5% per school year beginning in year 1.

Note 2: It is anticipated that 34 new Juniors will be added during year 1, and 30 will continue as Seniors for year 2. Additionally 34 new Juniors will be added during year 2 for a total increase in upper division students of 64. It is expected that the program will continue to grow at a rate of 5% thereafter.

Note 3: The base year appropriated budget for the Music Department is sufficient to match the base year expenditures.

Note 4: Base year tuition rates at Snow College for FY12 are $1,260 per semester or $2,520 for full year. Tuition is assumed to grow at 7% per year and as shown in this model is net of estimated 10% for waivers. Upper Division Tuition is calculated at 20% above Lower Division tuition with an annual increase of 7% and again is net of 10% for waivers.

Note 5: Adjuncts are added the first and second years at $14,000 per adjunct based on 10 credit hours per semester for two semesters at $700 per credit hour. Benefits on Adjuncts include payroll taxes only plus workers comp and unemployment. A full-time faculty member was added the second year at a salary and benefit cost of $65,000. Current Expenses & Travel were increased at 5% per annum.

##########

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L Buhler

SUBJECT: Proposed Policy: R571- Delegation of Purchasing Authority

Issue

The Utah Legislature during the 2012 General Session approved major changes to the Utah Procurement Code. A policy providing for the delegation of purchasing authority necessary for institutions to begin implementation of the new Code was brought forward to the July Regents Finance Committee meeting. While Finance Committee members were in agreement with the language of the new policy, they asked that a preamble be added to the policy, one that addressed general Board expectations of the institutions in the Purchasing arena. The Utah Procurement Advisory Council (UPAC) group suggested preamble possibilities that might outline expectations. The attached policy proposal includes a policy preamble.

Background

The Utah Legislature during the 2012 General Session approved major changes to the Utah Procurement Code. The SB 153 passed both houses and has been signed into law by the Governor. With passage of this Code change, the State Board of Regents is positioned to develop an umbrella policy which delegates to individual USHE institutions, the authority to manage their procurement activities within the new statutory guidelines. This policy clarifies that delegation to the institutions.

Revisions in two sections of the new Code: Higher Education 63G-6a-103 (2)(f) "Definitions" and 63G-6a-106 (1)(a) "Specific Statutory Authority", reference the State Board of Regents and Title 53B, State System of Higher Education as having ultimate authority over Higher Education procurement. Previously, the Code defined individual institutions of Higher Education as "Local Public Procurement Units" having statutory authority to adopt individual rules and policies under the Utah Procurement Code. In order to ensure the continued authority for each institution to adopt Policies and Rules in accordance with the Procurement Code, the Board of Regents will need to either create a delegation document or adopt a policy providing for such delegation.

Each institution has policies currently in place that conform to the Utah Code and provide for the unique procurement needs of each institution. The new law will require changes to institutional policies during the next year. In order to accomplish this process of policy revision in a timely manner, UPAC recommends clarification from the Board of Regents to allow delegation of this authority to individual institutions of higher

education. The institutional policies developed through this delegation will cover areas outlined in the Utah Code which include the following:

63G-6a-301- the Chief Procurement Officer
63G-6a-401- General Procurement Provisions
63G-6a-402- Public procurement unit required to comply with Utah Procurement Code and applicable rules—Rulemaking authority—Reporting.
63G-6a-403- Prequalification of potential bidders or offers
63G-6a-404- Approved contractor list
63G-6a-405- Multiple award contracts
63G-6a-406- Public notice of procurement process
63G-6a-408- Small Purchases
63G-6a-501- Request for Information
63G-6a-601- Bidding
63G-6a-701- Request for Proposals
63G-6a-801- Exceptions to Procurement Requirements
63G-6a-2301- Unlawful Conduct and Penalties

Commissioner's Recommendation

The Commissioner recommends the Board consider and, if satisfied, approve this new Delegation of Purchasing Authority policy.

David L. Buhler
Commissioner of Higher Education

GLS/DLB
Attachment

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds

R571, Delegation of Purchasing Authority[1]

Preamble
Values and Guiding principles of Public Procurement

Accountability
Taking ownership and being responsible to stakeholders for our actions...essential to preserve the public trust and protect the public interest.

Principles:

- Apply sound business judgment.
- Be knowledgeable of and abide by all applicable laws and regulations.
- Be responsible stewards of public funds.
- Maximize competition to the greatest extent practicable.
- Practice due diligence.
- Use procurement strategies to optimize value to stakeholders.

Ethics
Acting in a manner true to these values...essential to preserve the public's trust.

Principles:

- Act and conduct business with honesty and integrity, avoiding even the appearance of impropriety.
- Maintain consistency in all processes and actions.
- Meet the ethical standards of the profession.

Impartiality
Unbiased decision-making and action...essential to ensure fairness for the public good.

Principles:

- Be open, fair, impartial, and non-discriminatory in all processes.
- Treat suppliers equitably, without discrimination, and without imposing unnecessary constraints on the competitive market.
- Use sound professional judgment within established legal frameworks to balance competing interests among stakeholders.

Professionalism
Upholding high standards of job performance and ethical behavior...essential to balance diverse public interests.

Principles:

- Be led by those with education, experience, and professional certification in public procurement.
- Continually contribute value to the organization.
- Develop, support, and promote the highest professional standards in order to serve the public good.

[1] Approved Month, Day, Year.

Service
Obligation to assist stakeholders...essential to support the public good.

Principles:

- Be a crucial resource and strategic partner within the organization and community.
- Develop and maintain relationships with stakeholders.
- Maintain a customer-service focus while meeting the needs, and protecting the interests, of the organization and the public.

Transparency
Easily accessible and understandable policies and processes...essential to demonstrate responsible use of public funds.

Principles:

- Exercise discretion in the release of confidential information.
- Maintain current and complete policies, procedures, and records.
- Provide open access to competitive opportunities.

(Preamble excerpts taken from © National Institute of Governmental Purchasing, Inc)

R571-1 Purpose: To provide institutions of Higher Education with the authority to individually adopt policies and rules conforming to the Utah Procurement Code.

R571-2 References

2.3 Utah Code §53B- Higher Education

2.3.1 §53B-1-102 (4)- State System of Higher Education. These institutions are empowered to sue and be sued and to contract and be contracted with under the general supervision of the board.

2.3.2 §53B-7-101 (10)- State System of Higher Education. Each institution may do its own purchasing, issue its own payrolls, and handle its own financial affairs under the general supervision of the board.

2.4 Utah Code §63G-6A- Utah Procurement Code

2.5 Utah Code §63G-6A-106 (a)- Procurement Authority

R571-3 Definitions

3.3 Applicable Rulemaking Authority: as it relates to a state institution of higher education, the State Board of Regents.

3.4 Head of a Public Procurement Unit: as it relates to an institution of higher education of the state, the president of the institution of higher education, or the president's designee.

3.5 Procurement Officer: as it relates to a state purchasing unit, the head of the state purchasing unit, or a designee of the head of the state purchasing unit.

R571-4 Delegation of Authority: As outlined in Utah Code Ann. §63G-6a-101, *et. seq.* effective May 1, 2013, the Utah Board of Regents is the body designated with rulemaking authority over procurement for institutions of Higher Education. The Board delegates to each institution the authority to adopt and administer procurement policies, rules and processes that are in conformance with the Utah Procurement Code and this general policy. Each president, or designee, is given authority over procurements at their respective institution.

R571-5 Purpose: Each institution is charged to provide efficient and timely procurement services, that maximize the institution's resources and promotes its instruction, research, extension, and professional service programs. Each institution shall strive to obtain the maximum value for each dollar expended, utilizing open competition and impartial evaluation of alternate products. They should also foster fair, ethical, and legal trade practices, which develop a strong vendor community and promote public trust in the institution and the system of higher education.

R571-6 Small Purchases: Each institution shall establish policies, rules, and processes governing small purchases.

5.1 Each institution shall establish the maximum expenditure that may qualify as a small purchase.

5.2 Each institution may establish expenditure thresholds and procurement requirements related to those thresholds in relation to small purchases, including, but not limited to:

5.2.1 Purchasing Cards (P-Card)

5.2.1.1 The purpose of a purchasing card program is to establish a more efficient, cost-effective method of purchase and paying for low-dollar transactions. Institutions shall establish procedures that govern card issuance, card-holder training, and the auditing of purchasing card transactions.

5.2.2 Requests for Quotation (RFQ)

5.2.2.1 Institutions are charged to seek competition whenever practicable. RFQs involve soliciting quotes from two or more known vendors. Each institution should establish procedures regarding the acceptance of phone, fax, and email quotes.

5.2.3 Small-dollar Purchase Orders

5.2.4 Reimbursements

5.2.5 Petty Cash

R571-6 Solicitations: Each institution shall formally solicit competition for all procurements over the maximum small dollar expenditure established by the respective institution, unless the procurement falls under R571-8, Exceptions to the Solicitation Process, as required by law. Each institution shall establish policies, rules, and processes governing solicitations, including:

6.1 Invitation for Bid (IFB): The Invitation for Bids is used to initiate a competitive sealed bid procurement.

6.1.1 An IFB shall include a purchase description, and all contractual terms and conditions applicable to the procurement.

6.1.2 A minimum of ten (10) days shall be provided for response.

6.1.3 IFBs must be publically advertised as outlined in the Procurement Code.

6.1.4 Bids shall be submitted using a sealed bid process.

6.1.5 Bids shall be opened publically in accordance with the Procurement Code.

6.1.6 Bids shall be evaluated based on the requirements set forth in the IFB, which may include objective criteria. Criteria not included in the IFB may not be used to evaluate bids.

6.1.7 Contracts shall be awarded with reasonable promptness by notice to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in the IFB.

6.1.8 IFBs may be performed in multiple steps as outlined in the Procurement Code.

6.2 **Request for Proposal (RFP):** An RFP process may be used instead of the IFB process if the procurement officer determines, in writing, that the RFP process will provide the best value to the institution.

6.2.1 An RFP shall include a scope of work, all contractual terms and conditions applicable to the procurement, and the manner in which proposals are to be submitted.

6.2.2 A minimum of ten (10) days shall be provided for response.

6.2.3 RFPs must be publically advertised as outlined in the Procurement Code.

6.2.4 Proposals shall not be opened publicly.

6.2.5 Proposals shall be handled as outlined in the Procurement Code

6.2.6 A committee of at least three (3) individuals shall be appointed to the evaluation committee

6.2.7 The evaluation committee will rate proposals based on the criteria outlined in the RFP. Criteria not included in the RFP may not be used to evaluate proposals.

6.2.8 The RFP process may be conducted in multiple steps, including presentations/discussions and requests for best and final proposals.

6.3 **Request for Information (RFI):** The purpose of an RFI is to obtain information, comments, or suggestions from potential bidders or offerors before issuing an IFB or RFP. An RFI is not a procurement process.

6.4 **Request for Supplier Qualification (RFSQ):** An institution may prequalify potential bidders or offerors to provide any type of procurement item and limit participation in an IFB or RFP to the prequalified potential bidders or offerors.

6.4.1 RFSQs shall include they type of procurement item to which it relates, the scope of work, the minimum criteria for prequalification, and period of time during which the list will be used.

R571-7 Exceptions to the Solicitation Process: Each institution shall establish policies, rules, and processes governing exceptions to the solicitation process, as required by law, which may include, including:

7.1 **Sole Source Procurement:** Sole Source Procurement is not permissible unless a requirement is available from only a single supplier. A requirement for a particular proprietary item does not justify a sole source prourment if there is more than one potential bidder or offeror for that item. The determination as to whether a procurement shall be made as a sole source shall be made by the head of the purchasing agency, or designee. In cases of reasonable doubt, competition should be solicited. The following are examples of circumstances which could necessitate sole source procurement:

7.1.1 where the compatibility of equipment, accessories, or replacement parts is the paramount consideration;

7.1.2 where a sole supplier's item is needed for trial use or testing;

7.1.3 where a sole supplier's item is to be procured for resale;

7.1.4 where public utility services are to be procured.

7.2 **Emergency Procurement:** Emergency procurement is appropriate when an emergency condition exists that limits the capability of the institution to obtain competition. An emergency condition is a situation which creates a threat to public health, welfare, or safety such as may arise by reason of floods, epidemics, riots, equipment failures, or such other reason as may be proclaimed by the

President of the insititution. These procurements shall be made in accordance with the Procurement Code.

R571-8 Protests: Aggrieved bidders, offerors, or potential bidders or offerors, may protest the soliciation's specifications or award decision in accordance with the Procurement Code. The aggrieved party may appeal a protest decision in accordance with the Procurement Code. Each institution shall establish policies, rules, and processes governing protests related to procurement in accordance with the Utah Procurement Code.

R571-9 Ethics: Individuals employed by institutions of higher education must discharge their duties impartially so as to assure fair competitive access to procurement. Employees should conduct themselves in such a manner as to foster public confidence in the integrity of the system of higher education.

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Dixie State College – Public/Private Housing Project

Issue

Dixie State College (DSC) is requesting Regents' authorization to secure from the State Building Board, approval to issue an RFP for DSC's proposed public/private student housing project.

Background and Progress on the Project

DSC's public/private student housing project proposal was approved in concept by both the Board of Regents and by the Building Board in October of 2010. This conceptual approval allowed the college to go forward with planning for the project and to work out the details and some concerns about the project.

Since that time, DSC has been working collaboratively with OCHE staff and DFCM officials to resolve areas of concern and work out further details of the project. DFCM has been particularly concerned about assurances that the project be built to state standards with an acceptable level of quality in the end product. The student housing approach being pursued by DSC with DFCM has potential trade-offs, the current issues focusing on the potential for lower construction costs but also the potential for increased building maintenance costs and shorter building life-spans. DSC continues these discussions with DFCM.

The college is now requesting Regents' approval to go back to the Building Board for authorization to issue the RFP in order to receive proposals from private firms having interest in the project. DSC will then bring their recommended contract proposal resulting from the RFP process back to the Regents for final approval prior to awarding of the contract.

Attached are copies of the materials that were included in the October 29, 2010 Board meeting agenda book in order to provide further background regarding the project proposal; the Regents granted approval "in concept" at that time.

Commissioner's Recommendation

The Commissioner recommends that the Board carefully review the proposal and if satisfied with the same, that they authorize DSC to request approval from the State Building Board for issuance of a project RFP. Approval would be given with the clear understanding that any proposed contract resulting from an RFP

process be brought back to the Regents and Building Board for final project approval. The proposed contract must be accompanied by a formal acknowledgement from the Office of the Attorney General that the project is within the Regents' authority to approve under current statute, and that the contract documents conform to acceptable legal standards. This step is required by Regents' Policy R712, Nontraditional Arrangements for Development of Facilities on Campuses.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

October 20, 2010

MEMORANDUM

TO: State Board of Regents

FROM: William A. Sederburg

SUBJECT: Dixie State College Housing Project

Issue

Dixie State College has requested approval to proceed with planning for a nontraditional (public/private partnership) student housing project that entails a long-term lease of campus property to a private developer. The proposed facility would be built and operated by a private housing developer during the time period of the lease. At the end of the lease the development would revert to the College.

Background

The history and details of this needed facility are provided in the attachments from President Stephen D. Nadauld. Because the request proposes to build a private development on state owned land it is governed by Regents' Policy R712, Nontraditional Arrangements for Development of Facilities on Campuses This request falls under section R712-5 of the policy and specifies that such proposals can only be finalized "after receipt of advice from the Attorney General's Office that the specific proposal is within the Regents' authority to approve under current statute..." and after specified conditions are met. The specified conditions, in summary, pertain to:

- Program benefits or broad public purpose
- Proper developer and use
- Adequate compensation
- Adherence to contractual provisions specified in the policy

A copy of the policy is also attached to provide further information regarding these conditions.

Commissioner's Recommendation

The Commissioner recommends that the Regents give serious consideration to this proposal to help meet the critical student housing needs of the College. It is further recommended that the College be authorized to present this proposal to the State Building Board as a non-state funded project, with the clear understanding that final approval to proceed is subject to further review and approval by the Board when final details are known, and when the Attorney General's advice on the Regents' authority to proceed has been received.

William A Sederburg
Commissioner of Higher Education

WAS/GLS/WRH
Attachments

October 4, 2010

Dr. Gregory L. Stauffer
Associate Commissioner for Finance and Facilities
Utah State Board of Regents
Board of Regents Building - The Gateway
60 South 400 West
Salt Lake City, UT 84101-1284

Dear Greg:

In accordance with the requirements of R712-5 and Utah Code 53B-20-103 and 53B-21-108 relative to the leasing of public property Dixie State is requesting approval to enter into public/private partnership for the purpose of building a 314 bed student housing project on Dixie State land.

The reasons for Dixie opting for this public/private partnership approach are outlined in the attached document. We feel that we have a compelling need for student housing that is most effectively and efficiently satisfied using an innovative opportunity which combines the advantages of private equity funding, proven student housing design and construction, timely completion, no obligation for O&M funding, and ultimate College ownership of the asset

The legal and financial credibility of the proposed partnership is being vetted by Ballard Spahr LLP and the Utah State Attorney General's office. It is anticipated that recommendations from these entities will be available for the October Regent meeting.

This proposal will be presented to the Utah State Building Board for approval as a non-state funded project. It is anticipated that the project as structured will not require legislative approval or DFCM oversight.

We request your favorable consideration of this proposal in answer to the critical student housing issues as presented in the attached document.

Cordially,

Stephen D. Nadauld, Ph.D.
President

Dixie State College of Utah
Non-state funded student housing project

Dixie State College has a critical need for new housing stock on the campus. With a student body of nearly 9,000 and continued strong growth anticipated, the current 250 beds on campus are woefully inadequate The existing student housing was built in 1962 and 1968 in traditional dormitory style sans kitchens and living rooms. Dixie's enrollment in 1968 was 1,074. Historically Dixie has had a mix of about 2/3 Washington County students and 1/3 from outside the county.

During the 70's, 80's, and 90's the College encouraged private developers to build new apartment style housing near the campus. A total of 1,500 beds have been built in off campus locations; some as far as two miles from campus. Private housing developers haven't been building around the campus in recent years because of the lack of available land.

In 2005 Dixie State was authorized by the Building Board to complete an architectural program for new housing. The resulting plan called for a phased 500 bed facility at a total cost estimated at $23,629,280. Dixie did not have the bonding capacity to accomplish even a phase one of this programmed housing and the plan for new on campus student housing was shelved

Rapid enrollment growth during the past three years has prompted the College to look at the housing options through a new set of lenses. A Student Housing Feasibility and Market Analysis was conducted by Brailsford & Dunleavy in 2009. Their total cost estimates using traditional bonding were between $59,000 and $68,000 per bed. These estimates again led Dixie to the conclusion that the conventional bonding approach was out of reach for the institution.

During the course of the last year, Dixie has invited state and national student housing developers to present options for a public/private partnership. Included in this survey of housing options was the desire to "get it right" pertaining to all aspects, including quality construction, state of the art design, security and safety, and a win-win funding model.

Dixie has assembled what it feels is the best solution to arrest this crisis in on campus student housing. The public/private partnership will not require state funding or student bonding. The planned 314 bed three story facility includes the latest in student housing design, to include layered security from the exterior entrance to the bedrooms, study rooms, building wide Wi-Fi, recreation amenities, kitchens, living rooms, and options for private bedrooms. The total estimated costs for construction and FFE by the private partners is $8,700,000

Dixie State will lease land for the student housing development, adjacent to the current student housing, with the proviso that the development would revert to the College at the end of the lease.

Reference R712, Utah State Code 53B-20-103 and 53B-21-108

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.utahsbr.edu

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: UHEAA – Approving Resolution, SBR Student Loan Backed Notes, Series 2012-1

Issue

Board of Regents adoption of an Approving Resolution for the issuance of student loan backed notes is necessary to refinance student loans currently funded by its Straight-A Conduit facility and to purchase approximately $15 million of student loans currently held by UHEAA in its Short Term Note Fund.

Background

In June 2010, the Board of Regents entered into an asset-backed commercial paper financing sponsored by the Federal government (Straight-A Conduit) for the purpose of refunding certain outstanding student loan revenue bonds. The Straight-A Conduit has a final maturity date of January 19, 2014.

On August 27, 2012 the Student Finance Subcommittee reviewed the current proposed financing with UHEAA staff and the financing team and voted unanimously to recommend approval by the Board of Regents of the attached Approving Resolution.

Proposed Structure

	Expected Rating	Proposed Amount	Interest Rate	Maturity
Series 2012-1	AA+/ AAA	$ 531,250,000(1)	1M Libor +TBD	TBD

(1) Subject to change

Proposed Not To Exceed Parameters

	Not To Exceed Parameter	Resolution Reference
• Total Principal Amount	$600,000,000	Section 5
• Interest Rate on Libor-Indexed Notes	1M Libor + 1.25%	Exhibit A
• Discount from Par	1.50%	Exhibit A
• Maximum Maturity	31 years	Exhibit A
• Underwriters Discount	0.60%	Section 7

Basic Documents Requiring Approval

The Approving Resolution, provided as Attachment I, is in final draft form. Its approval by the Board will authorize the execution of the necessary documents and agreements and the issuance of student loan backed notes pursuant to a new Indenture of Trust between the Board of Regents and Wells Fargo Bank, as trustee.

The Approving Resolution delegates authority to the Board's Chair, Vice Chair, and/or Chair of the Finance and Facilities Committee to approve final versions of the bond documents, consistent with parameters contained in the Approving Resolution, and along with designated Officers of the Board, to execute other necessary implementing agreements (see Resolution Sections 6 through 9).

UHEAA staff, Assistant Attorney General Kevin Olsen, Bond Counsel, and Underwriters will be present at the Board of Regents meeting on September 14 to review the proposed debt issuance and answer questions.

Options Considered

The Student Finance Subcommittee, Program Officers, Financial Advisor, Underwriters, and Bond Counsel have reviewed and considered a wide range of financing facilities and structures. The interest earnings on the Board's student loan portfolio are primarily indexed to one month LIBOR, thus requiring the student loans to be financed with variable rate debt to minimize the interest rate risk to the Board. The proposed student loan backed notes are expected to be issued with an interest rate tied to one month LIBOR plus a spread.

Commissioner's Recommendation

The Commissioner recommends that the Regents approve the attached Approving Resolution authorizing the issuance of the Student Loan Backed Notes, Series 2012-1.

David L. Buhler
Commissioner of Higher Education

Attachment
DLB/DAF/ROD

Logan, Utah

September 14, 2012

The State Board of Regents of the State of Utah (the "Board") met in regular session (including by electronic means) at Utah State University in Logan, Utah on September 14, 2012, commencing at [9:00 a.m]. The following members were present:

Bonnie Jean Beesley	Chair
Daniel W. Campbell	Vice Chair
Keith Buswell*	Member
Wilford Clyde	Member
France A. Davis	Member
James T. Evans*	Member
Marlin Jensen	Member
Nolan E. Karras	Member
Thomas D. Leavitt (Student Regent)	Member
Robert S. Marquardt	Member
Erik Mikkelsen (Student Regent) *	Member
Carol Murphy*	Member
Jed H. Pitcher	Member
Robert W. Prince	Member
Marlon O. Snow	Member
Mark Stoddard	Member
Teresa L. Theurer	Member
John H. Zenger	Member

Absent:

Also Present:

David L. Buhler	Commissioner of Higher Education
Kirsten Schroeder	Secretary

After the meeting had been duly convened and called to order by the Chair, the roll had been called with the above result and after other matters not pertinent to this Resolution had been discussed, the Chair announced that one of the purposes of the meeting was the consideration of various matters with respect to the issuance and sale of

---

* Non-voting member

the State Board of Regents of the State of Utah, Taxable Student Loan Backed Notes, Series 2012-1.

The following resolution was introduced in written form and after full discussion, pursuant to motion made by _____ and seconded by _____, was adopted by the following vote:

AYE:

NAY:

The resolution (the "Resolution") is as follows:

RESOLUTION

A RESOLUTION OF THE STATE BOARD OF REGENTS OF THE STATE OF UTAH AUTHORIZING THE ISSUANCE AND SALE OF ITS TAXABLE STUDENT LOAN BACKED NOTES, SERIES 2012-1 IN THE AGGREGATE PRINCIPAL AMOUNT OF NOT TO EXCEED $600,000,000 TO BE ISSUED IN ONE OR MORE SERIES; AUTHORIZING THE EXECUTION OF AN INDENTURE OF TRUST AND NOTE PURCHASE AGREEMENT AND OTHER DOCUMENTS REQUIRED IN CONNECTION THEREWITH; AUTHORIZING THE PREPARATION, USE, AND EXECUTION OF A PRELIMINARY OFFERING MEMORANDUM AND AN OFFERING MEMORANDUM; AUTHORIZING THE TAKING OF ALL OTHER ACTIONS NECESSARY TO THE CONSUMMATION OF THE TRANSACTIONS CONTEMPLATED BY THIS RESOLUTION; AND RELATED MATTERS.

WHEREAS, the State Board of Regents of the State of Utah (the "Board") is established and exists under and pursuant to Section 53B-1-103, Utah Code Annotated 1953, as amended; and

WHEREAS, pursuant to Chapter 13, Title 53B, Utah Code Annotated 1953, as amended (the "Act"), the Board is empowered to make or purchase student loan notes and other debt obligations reflecting loans to students under its Student Loan Program; and

WHEREAS, in order to provide funds for such purposes, the Board is duly authorized to issue and sell bonds and notes pursuant to the provisions of the Act; and

WHEREAS, the Board has previously refinanced certain eligible loans through the issuance and sale of a funding note pursuant to the U.S. Department of Education's student loan asset-backed commercial paper conduit, Straight-A Funding, LLC (the "Conduit"); and

WHEREAS, the Board owns certain loans which are currently held in the Board's Short-Term Note Fund (the "Short-Term Note Fund"); and

WHEREAS, the Board desires to refinance certain loans held under the Conduit program and in the Short Term Note Fund in order to restructure the Board's student loan debt portfolio in an effort to reduce interest rate risk; and

WHEREAS, in furtherance thereof, the Board considers it desirable and necessary for the benefit of the residents of the State of Utah to authorize and approve the issuance and sale of the State Board of Regents of the State of Utah, Taxable Student Loan Backed Notes, Series 2012-1 (to be issued in one or more series and with such other series designations that may be determined) (the "Series 2012-1 Notes") in an aggregate principal amount of not to exceed $600,000,000, pursuant to an Indenture of Trust (the

"Indenture") between the Board and Wells Fargo Bank National Association, as trustee (the "Trustee"); and

WHEREAS, the Board desires to use the proceeds of the Series 2012-1 Notes to (i) refinance certain loans held under the Conduit program and in the Short Term Note Fund, (ii) fund capitalized interest and any required deposit to debt service reserves and (iii) pay costs of issuance of the Series 2012-1 Notes; and

WHEREAS, the Series 2012-1 Notes and the Board's obligations thereunder shall be payable solely from revenues and other moneys pledged therefor in the Indenture and shall not constitute nor give rise to a general obligation or liability of the Board or the State of Utah or constitute a charge against their general credit; and

WHEREAS, RBC Capital Markets, LLC (the "Underwriter") has offered to purchase the Series 2012-1 Notes and there has been presented to the Board at this meeting a form of the Note Purchase Agreement to be entered into between the Board and the Underwriter (the "Note Purchase Agreement"), a form of the Indenture, and a form of the Preliminary Offering Memorandum (the "Preliminary Offering Memorandum") for use in the marketing of the Series 2012-1 Notes; and

WHEREAS, pursuant to Section 53B-13-104(9) of the Act, the Board desires to grant to the Chair, Vice Chair and/or the Chair of the Finance, Facilities and Accountability Committee of the Board the authority to approve the final principal amounts, terms, maturities, interest rates, redemption provisions and purchase prices at which the Series 2012-1 Notes shall be sold and any changes with respect thereto from those terms which were before the Board at the time of adoption of this Resolution, provided such terms do not exceed the parameters set forth in this Resolution;

NOW, THEREFORE, BE IT RESOLVED BY THE STATE BOARD OF REGENTS OF THE STATE OF UTAH, AS FOLLOWS:

Section 1. All terms defined in the foregoing recitals hereto shall have the same meanings when used herein.

Section 2. All action heretofore taken (not inconsistent with the provisions of this resolution) by the Board and the officers of the Board directed toward the issuance of the Series 2012-1 Notes are hereby ratified, approved and confirmed.

Section 3. The Board hereby authorizes, approves and directs the use and distribution of the Preliminary Offering Memorandum in substantially the form before the Board at this meeting in connection with the offering and sale of the Series 2012-1 Notes. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee and the Secretary of the Board are hereby authorized to execute and deliver on behalf of the Board a final Offering Memorandum (the "Offering Memorandum") in substantially the same form and with substantially the same content as the form of the Preliminary Offering Memorandum before the Board at this meeting with any such alterations, changes or additions as may be necessary to finalize the Offering Memorandum. The preparation, use and distribution of the Offering Memorandum are also hereby authorized.

Section 4. The Indenture in substantially the form presented to this meeting is in all respects authorized, approved and confirmed. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee and the Secretary of the Board are hereby authorized to execute and deliver the Indenture in substantially the same form and with substantially the same content as the form of such document presented to this meeting for and on behalf of the Board with such alterations, changes or additions as may be authorized by Section 9 hereof.

Section 5. For the purpose of providing funds to (i) refinance certain loans held under the Conduit program and in the Short-Term Note Fund, (ii) fund capitalized interest and any required deposits to debt service reserves and (iii) pay costs of issuance of the Series 2012-1 Notes, the Board hereby authorizes the issuance of the Series 2012-1 Notes in the aggregate principal amount of not to exceed $600,000,000. The Series 2012-1 Notes shall mature on such date or dates, be subject to redemption and bear interest at the rates, as shall be approved by the Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee of the Board, all within the parameters set forth on Exhibit A attached hereto and incorporated herein by reference. The issuance of the Series 2012-1 Notes shall be subject to the final advice of Note Counsel and to the approval of the office of the Attorney General of the State of Utah.

Section 6. The form, terms and provisions of the Series 2012-1 Notes and the provisions for the signatures, authentication, payment, registration, transfer, exchange, redemption and number shall be as set forth in the Indenture. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee and the Secretary of the Board are hereby authorized to execute and seal by manual or facsimile signature the Series 2012-1 Notes and to deliver the Series 2012-1 Notes to the Trustee for authentication. All terms and provisions of the Indenture and the Series 2012-1 Notes are hereby incorporated in this Resolution. The appropriate officials of the Board are hereby authorized to execute and deliver to the Trustee the written order of the Board for authentication and delivery of the Series 2012-1 Notes in accordance with the provisions of the Indenture.

Section 7. The Series 2012-1 Notes shall be sold to the Underwriter with an Underwriter's discount of not to exceed six-tenths of one percent (0.60%) (as a discount or fee) of the face amount of the Series 2012-1 Notes. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee of the Board are hereby authorized to execute and deliver the Note Purchase Agreement, in substantially the form and with substantially the same content as presented at this meeting for and on behalf of the Board with final terms as may be established for the Series 2012-1 Notes and such alterations, changes or additions as may be authorized by Section 9 hereof. Pursuant to Section 53B-13-104(9) of the Act, the Chair, Vice-Chair and/or Chair of the Finance, Facilities and Accountability Committee of the Board, are each hereby authorized to specify and agree as to the final principal amounts, terms, discounts, maturities, interest rates, rate determination methods and purchase price (including Notes sold at a premium or discount) with respect to the Series 2012-1 Notes for and on behalf of the Board by the execution of the Note Purchase Agreement and the Indenture and any changes with respect thereto from those terms which were before the Board at the time of adoption of this Resolution, provided such terms are within the parameters set by this Resolution.

Section 8. The appropriate officers of the Board, including without limitation the Chair, Vice Chair, Chair of the Finance, Facilities and Accountability Committee, Commissioner of Higher Education, Associate Commissioner for Student Financial Aid, Executive Director of UHEAA, Deputy Executive Director of UHEAA and Secretary are hereby authorized to (i) take all action necessary or reasonably required by the Note Purchase Agreement and the Indenture to carry out, give effect to and consummate the transactions as contemplated thereby and are authorized to take all action necessary in conformity with the Act, and (ii) execute and deliver for and on behalf of the Board any or all additional certificates, documents and other papers and to perform all other acts they may deem necessary or appropriate in order to implement and carry out the matters authorized in this Resolution and the documents authorized and approved herein.

Section 9. The appropriate officials of the Board, including without limitation the Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee are authorized to make any alterations, changes or additions to the Indenture, the Series 2012-1 Notes, the Note Purchase Agreement, the Preliminary Offering Memorandum, the Offering Memorandum, or any other document herein authorized and approved which may be necessary to correct errors or omissions therein, to complete the same, to remove ambiguities therefrom, to conform the same to other provisions of said instruments, to the provisions of this Resolution or any resolution adopted by the Board or the provisions of the laws of the State of Utah or the United States, all within the parameters established herein.

Section 10. Upon their issuance, the Series 2012-1 Notes and the obligations of the Board under the Indenture will constitute special limited obligations of the Board payable solely from and to the extent of the sources set forth in the Indenture and such Series 2012-1 Notes. No provision of this Resolution, the Series 2012-1 Notes, the Indenture, the Note Purchase Agreement, or any other instrument authorized hereby, shall be construed as creating a general obligation of the Board, or of creating a general obligation of the State of Utah or any political subdivision thereof, nor as incurring or creating a charge upon the general credit of the Board, the State of Utah or any political subdivision thereof.

Section 11. After any of the Series 2012-1 Notes are delivered by the Trustee to or for the account of the Underwriter and upon receipt of payment therefor, this Resolution shall be and remain irrepealable until the principal of, premium, if any, and interest on the Series 2012-1 Notes are deemed to have been fully discharged in accordance with the terms and provisions of the Indenture.

Section 12. If any provisions of this Resolution should be held invalid, the invalidity of such provisions shall not affect the validity of any of the other provisions of this Resolution.

Section 13. All resolutions of the Board or parts thereof inconsistent herewith, are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed as reviving any bylaw, order, resolution or ordinance or part thereof.

Section 14. This Resolution shall become effective immediately upon its adoption.

PASSED AND APPROVED BY THE STATE BOARD OF REGENTS OF THE STATE OF UTAH THIS 14TH DAY OF SEPTEMBER, 2012.

STATE BOARD OF REGENTS OF THE STATE OF UTAH

(SEAL)

_____
Chair

ATTEST:

_____
Secretary

After the conduct of other business not pertinent to the above, the meeting was, on motion duly made and seconded, adjourned.

(SEAL)

_____
Chair

ATTEST:

_____
Secretary

STATE OF UTAH)
: ss.
COUNTY OF SALT LAKE)

I, Kirsten Schroeder, do hereby certify that I am the duly qualified and acting Secretary of the State Board of Regents of the State of Utah.

I further certify that the above and foregoing constitutes a true and correct copy of an excerpt of the minutes of a meeting of said Board held on September 14, 2012 and of a resolution adopted at said meeting, as said minutes and resolution are officially of record in my possession.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of said Board this 14th day of September, 2012.

_____
Secretary

(SEAL)

STATE OF UTAH)
: ss.
COUNTY OF SALT LAKE)

I, Kirsten Schroeder, the undersigned, the duly qualified and acting Secretary of the State Board of Regents of the State of Utah, do hereby certify, according to the records of said State Board of Regents in my official possession, and upon my own knowledge and belief, that:

(a) in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended, public notice was given of the agenda, date, time and place of the September 14, 2012 public meeting held by the Members of the State Board of Regents by causing a Notice of Public Meeting, in the form attached hereto as Schedule 1, to be: (i) posted at the principal office of the State Board of Regents at 60 South 400 West, Salt Lake City, Utah, on September ___, 2012, said Notice of Public Meeting having continuously remained so posted and available for public inspection during the regular office hours of the State Board of Regents until the convening of the meeting; (ii) published on the Utah Public Notice Website (http://pmn.utah.gov), at least 24 hours prior to the convening of such meeting; and (iii) provided at least 24 hours prior to the convening of such meeting, to the Deseret News and The Salt Lake Tribune, newspapers of general circulation within the geographic jurisdiction of the State Board of Regents, and to each local media correspondent, newspaper, radio station or television station which has requested notification of meetings of the State Board of Regents;

(b) in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended, public notice of the 2012 Annual Meeting Schedule of the State Board of Regents was given, specifying the date, time and place of the regular meetings of the State Board of Regents scheduled to be held during the year, by causing a Notice of Annual Meeting Schedule for the State Board of Regents, in the form attached hereto as Schedule 2, to be (i) posted at the principal office of the State Board of Regents at 60 South 400 West, Salt Lake City, Utah on _____, (ii) provided on _____ to a newspaper of general circulation within the geographic jurisdiction of the State Board of Regents and (iii) published on the Utah Public Notice Website (http://pmn.utah.gov) during the current calendar year; and

(c) the State Board of Regents has adopted written procedures governing the holding of electronic meetings in accordance with Section 52-4-207 Utah Code Annotated 1953, as amended (a copy of which is attached hereto as Schedule 3). In accordance with said Section and the aforementioned procedures, notice was given to each member of the State Board of Regents and to members of the public at least 24 hours before the meeting to allow members of the State Board of Regents and the public to participate in the meeting, including a description of how they could be connected to the meeting. The State Board of Regents held the meeting (the anchor location) in the building where it normally meets and provided space and facilities at the anchor location so that interested persons and the public could attend and participate.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of the State Board of Regents of the State of Utah, this 14th day of September, 2012.

_____

Secretary

(SEAL)

SCHEDULE 1

NOTICE OF PUBLIC MEETING

SCHEDULE 2

NOTICE OF ANNUAL MEETING SCHEDULE

SCHEDULE 3

ELECTRONIC MEETING POLICY

EXHIBIT A

PARAMETERS OF THE SERIES 2012-1 NOTES

Principal amount not to exceed	$600,000,000
Interest rates not to exceed	1-Month LIBOR + 1.25%, and in any event, not more than 25.0%
Discount from par not to exceed	1.50%
Final Maturity not to exceed	31 years from date of issuance

Notes may be non-callable or subject to redemption as deemed advantageous at the time of sale

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Weber State University – Purchase of Residential Property Proximate to the Ogden Campus

Issue

Weber State University (WSU) has requested the Board's consent to purchase a residential property located at 1350 Country Hills Drive in Ogden, Utah for the appraised value of $185,000.

Background

For several years WSU has been working to achieve a physical connection between the Ogden Campus-proper and the Dee Event Center. To this end, three homes in this corridor have been approved by the Regents and purchased by the institution. A fourth home has recently come on the market and WSU has entered into an earnest money agreement to purchase it at the appraised price of $185,000, subject to the Regents' consent to complete the transaction.

The location of the property is very nearly contiguous to the Main Campus as can be seen on the attached map. A copy of the appraisal is also attached. Additional details about the property can be reviewed in the attached letter from the institution.

Commissioner's Recommendation

The Commissioner recommends that the Regents consent to the purchase of this property.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

WEBER STATE UNIVERSITY

OFFICE OF THE VICE PRESIDENT
ADMINISTRATIVE SERVICES

August 23, 2012

Mr. David Buhler, Commissioner
Utah System of Higher Education
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, UT 84101-1284

Dear Commissioner Buhler:

Weber State University seeks Regent authorization to buy a residential home and lot near the Ogden campus for $185,000.

As background, for several years WSU has sought to create a physical connection between the Ogden Campus-proper and the Dee Event Center. This connection facilitates the development of our campus master plan in several ways (see attached map). The Regents have previously approved the acquisition of three homes in the vicinity for this purpose. A fourth home recently came on the market that is included in this plan-to-connect.

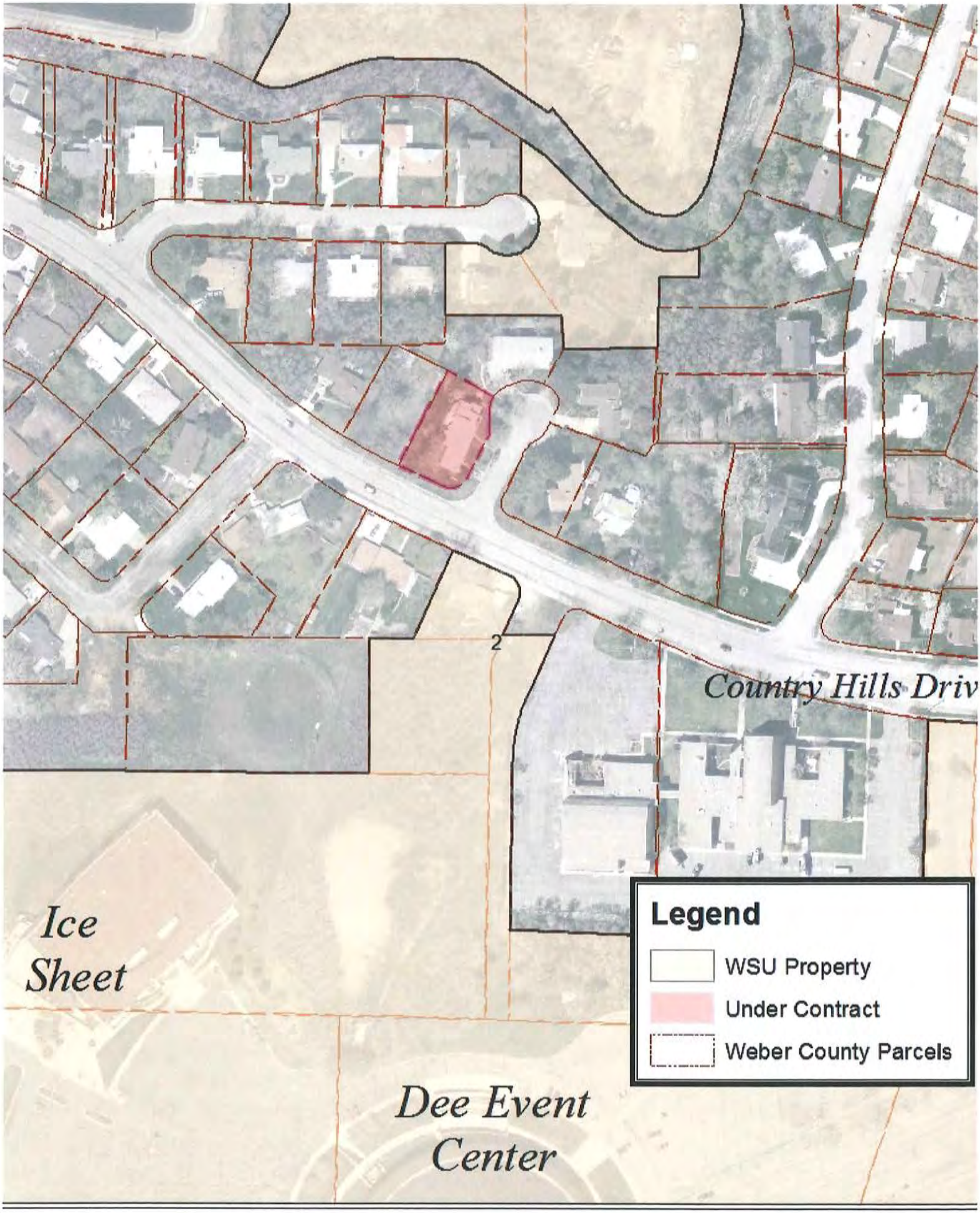
WSU commissioned an MAI appraiser who determined the value of the property to be $185,000. (see attached appraisal). WSU then entered into an earnest money agreement to buy the property at its appraised value. Funding for this transaction will come from previous property sales of the university.

WSU requests that the Regents approve this transaction at their September 14th meeting. Please place this item on their action agenda.

Sincerely,

Dr. Norm Tarbox
Vice President for Administrative Services

OFFICE OF THE VICE PRESIDENT ADMINISTRATIVE SERVICES
WEBER STATE UNIVERSITY 1006 UNIVERSITY CIRCLE OGDEN UT 84408-1006
(801) 626-6004 (801) 626-7922 FAX


2
Country Hills Driv
Ice
Sheet
Dee Event
Center
Legend
WSU Property
Under Contract
Weber County Parcels

APPRAISAL OF

LOCATED AT:

1350 Country Hills Dr.
Ogden, UT 84403

CLIENT:

Rich Sirken/ Weber State
1013 University Circle
Ogden, UT 84408

AS OF:

July 11, 2012

BY:

Mary Simpson

PURPOSE

The purpose of this appraisal report is to provide the client with a credible opinion of the defined value of the subject property, given the intended use of the appraisal.

Client Name/Intended User: Rich Sirken/ Weber State | E-mail: Richard.si@weber.edu
Client Address: 1013 University Circle | City: Ogden | State: UT | Zip: 84408
Additional Intended User(s): No additional users are intended, but it is understood that others may read this report.
Intended Use: The intended use of this report is to establish current market value for a possible acquisition.

SUBJECT

Property Address: 1350 Country Hills Dr. | City: Ogden | State: UT | Zip: 84403
Owner of Public Record: Justin Bennett | County: Weber
Legal Description: ALL OF LOT 12, HALVERSON SUBDIVISION, WEBER COUNTY, UTAH.
Assessor's Parcel #: 06-104-0003 | Tax Year: 2011 | R.E. Taxes $: 1,813.83
Neighborhood Name: East Ogden | Map Reference: County | Census Tract: 2015.00
Property Rights Appraised: [X] Fee Simple [ ] Leasehold [ ] Other (describe)

SALES HISTORY

My research [X] did [ ] did not reveal any prior sales or transfers of the subject property for the three years prior to the effective date of this appraisal.
Prior Sale/Transfer: Date: 11/07/2011 | Price: unknown | Source(s): Public Records
Analysis of prior sale or transfer history of the subject property (and comparable sales, if applicable): The subject transferred by special warranty deed from PNC Bank to the current owner on the date shown. There was a prior transfer by a Trustees Deed following foreclosure proceedings on 06/24/2011. The next prior transfer was in July 2005.

Offerings, options and contracts as of the effective date of the appraisal: The subject is listed for sale under MLS# 1100737 for $194,000 and has been on the market for 19 days as of the effective date of this appraisal report.

NEIGHBORHOOD

Neighborhood Characteristics				One-Unit Housing Trends				One-Unit Housing			Present Land Use %	
Location	[ ] Urban	[X] Suburban	[ ] Rural	Property Values	[ ] Increasing	[X] Stable	[ ] Declining	PRICE	AGE		One-Unit	70 %
Built-Up	[X] Over 75%	[ ] 25-75%	[ ] Under 25%	Demand/Supply	[ ] Shortage	[X] In Balance	[ ] Over Supply	$(000)	(yrs)		2-4 Unit	5 %
Growth	[ ] Rapid	[X] Stable	[ ] Slow	Marketing Time	[X] Under 3 mths	[ ] 3-6 mths	[ ] Over 6 mths	100 Low		15	Multi-Family	5 %
								350 High		75	Commercial	10 %
								225 Pred.		50	Other	10 %

Neighborhood Boundaries: North: 30th St., East: Mtns, South: 4200 S., West: 900 E. This general area is used for the data in this section and for the Market Conditions form.
Neighborhood Description: This is a residential area with a variety of age and style homes with good compatibility. There are areas of older homes, newer homes, and new construction of larger, custom homes. A hospital center and a university are both nearby. Shopping and employment centers are found in South Ogden, Ogden to the north, and Layton to the south. Nothing detrimental noted.

Market Conditions (including support for the above conclusions): The market in this area is generally stable but there are very few competitive sales. The attached Market Conditions form provides support for these conclusions.

SITE

Dimensions: See attached plat | Area: .20 Acres | Shape: Mostly Rectangular | View: Neighborhood
Specific Zoning Classification: R-1-10 | Zoning Description: Single Family Residential
Zoning Compliance: [X] Legal [ ] Legal Nonconforming (Grandfathered Use) [ ] No Zoning [ ] Illegal (describe)
Is the highest and best use of the subject property as improved (or as proposed per plans and specifications) the present use? [X] Yes [ ] No If No, describe:

Utilities	Public	Other (describe)		Public	Other (describe)	Off-site Improvements—Type	Public	Private
Electricity	[X]	[ ]	Water	[X]	[ ]	Street: Paved Asphalt	[X]	[ ]
Gas	[X]	[ ]	Sanitary Sewer	[X]	[ ]	Alley: none	[ ]	[ ]

Site Comments: The site is landscaped and has natural scrub oak trees. The landscaping has been replanted and there is a sprinkler system. The site is on a corner with a busy road on the side and faces a small cul-de-sac so access to the driveway is not impaired.

IMPROVEMENTS

GENERAL DESCRIPTION		FOUNDATION		EXTERIOR DESCRIPTION materials		INTERIOR materials	
Units: [X] One [ ] One w/Acc. unit [ ]		[ ] Concrete Slab [ ] Crawl Space		Foundation Walls	Concrete / Avg	Floors	HdWd,Cpt,Tile
# of Stories: 1		[ ] Full Basement [X] Partial Basement		Exterior Walls	Brick,Siding/Good	Walls	Drywall
Type: [X] Det. [ ] Att. [ ] S-Det./End Unit		Basement Area: 765 sq. ft.		Roof Surface	Asphalt Shing/Avg	Trim/Finish	Wood
[X] Existing [ ] Proposed [ ] Under Const.		Basement Finish: 100 %		Gutters & Downspouts	Aluminum / Avg	Bath Floor	Tile
Design (Style): Rambler		[X] Outside Entry/Exit [ ] Sump Pump		Window Type	Thermopane/Gd	Bath Wainscot	Tile
Year Built: 1954				Storm Sash/Insulated	None/Assmd/Avg	Car Storage	[ ] None
Effective Age (Yrs): 5				Screens	Yes	[X] Driveway	# of Cars: 2
Attic	[ ] None	Heating: [X] FWA [ ] HW [ ] Radiant		Amenities	[ ] WoodStove(s) #	Driveway Surface	concrete
[ ] Drop Stair	[ ] Stairs	[ ] Other	Fuel: Gas	[X] Fireplace(s) # 2	[ ] Fence	[X] Garage	# of Cars: 2
[ ] Floor	[X] Scuttle	Cooling: [X] Central Air Conditioning		[X] Patio/Deck 1/1	[X] Porch	[ ] Carport	# of Cars:
[ ] Finished	[ ] Heated	[ ] Individual	[ ] Other	[ ] Pool	[ ] Other	[ ] Att.	[X] Det. [ ] Built-in

Appliances: [X] Refrigerator [X] Range/Oven [X] Dishwasher [ ] Disposal [ ] Microwave [ ] Washer/Dryer [ ] Other (describe)
Finished area above grade contains: 5 Rooms | 2 Bedrooms | 1 Bath(s) | 1,169 Square Feet of Gross Living Area Above Grade
Additional Features: The subject has two fireplaces and central air conditioning. There is a deck, patio, and breezeway.

Comments on the Improvements: The subject has recently been completely remodeled and renovated. The kitchen is completely new, including the addition of a granite topped snack bar, tile backsplash, new cabinets, tile floor, and new appliances. The hardwood floors in the living room and dining area have been refinished and are in good condition. The walls and ceilings have been refinished, textured, and painted with 2-tone paint. The bathroom has been re-configured to give more space and there are new plumbing fixtures, tile flooring, and tile shower surround. Both bedrooms have new carpet. The basement has a small bedroom, kitchen, bath, living room with fireplace, and an entry area. The kitchen is all new and the bathroom has been updated. The exterior has new soffit and facia and all the windows are vinyl thermopane. There is a new furnace and the deck has been restored and painted. The garage door was replaced. Overall, the subject is in very good condition with many components that are new.

FEATURE	SUBJECT	COMPARABLE SALE NO. 1		COMPARABLE SALE NO. 2		COMPARABLE SALE NO. 3	
Address	1350 Country Hills Dr. Ogden	3079 Circle Way Ogden, UT 84403		1327 E 30th St Ogden, UT 84403		1241 E 34th. St. Ogden, UT 84403	
Proximity to Subject		1.56 miles N		1.69 miles N		1.13 miles N	
Sale Price	$ 99,975		$ 212,000		$ 179,000		$ 160,000
Sale Price/Gross Liv. Area	$ 85.52 sq. ft.	$ 152.41 sq. ft.		$ 137.69 sq. ft.		$ 119.58 sq. ft.	
Data Source(s)		MLS# 1083137;41 DOM		MLS# 1086822;40 DOM		MLS# 1073679;101 DOM	
Verification Source(s)		Doc#2583919 7/2/2012		Doc# 2583323 6/28/2012		Doc# 2583626 6/29/2012	
VALUE ADJUSTMENTS	DESCRIPTION	DESCRIPTION	+(-) $ Adjustment	DESCRIPTION	+(-) $ Adjustment	DESCRIPTION	+(-) $ Adjustment
Sale or Financing Concessions		Conv. 3000	-3,000	Conv. 3580	-3,600	FHA 4800	-4,800
Date of Sale/Time		02/Jul/12		28/Jun/12		29/Jun/12	
Location	Suburban	Suburban		Suburban		Suburban	
Leasehold/Fee Simple	Fee Simple	Fee Simple		Fee Simple		Fee Simple	
Site	8,712 sf	12197 sf	-2,600	6534 sf	1,500	10454 sf	-1,300
View	Res. Nbrhd	Res. Nbrhd		Res. Nbrhd		Res. Nbrhd	
Design (Style)	Rambler	Rambler		Rambler		Rambler	
Quality of Construction	Brick	Brick		Brick		Brick	
Actual Age	57	59		63		57	
Condition	Good Remodled	Good Remodled		Good Remodled		Updated	15,000
Above Grade Room Count (Total / Bdrms / Baths)	5 / 2 / 1.0	5 / 2 / 1.0		6 / 3 / 1.0		6 / 3 / 1.0	
Gross Living Area 35.00	1,169 sq. ft.	1,391 sq. ft.	-7,800	1,300 sq. ft.	-4,600	1,338 sq. ft.	-5,900
Basement & Finished Rooms Below Grade	765 sf; 100%fin. Br,Ba,Fr,Kit,Ldy	1514sf;100%Fin 2Br,Ba,Fr,Ldy	-6,000 0	916 sf; 100%fin Br,ba,fr,ldy	-1,200 0	1338sf;0%fin No finish	-4,600 0
Functional Utility	Good	Good		Good		Good	
Heating/Cooling	FWA / CAC	FWA / CAC	0	FWA / CAC		FWA / CAC	
Energy Efficient Items	New Wndws	New Wndws		New Wndws		Typical for age	5,000
Garage/Carport	2 Det Gar	2 Det Gar		1 Bl Gar	7,000	2 Att Gar	
Porch/Patio/Deck	Patio, LgDeck	SmCvDk, Cv Pat	0	CvPatio	3,000	CvPatio	3,000
Fireplaces	2Fplcs	2Fplcs		2Fplcs		2Fplcs	
AppInc, etc.	Ro;Dw;Mw	Ro;Dw	500	Ro;Dw;Mw		Ro;Dw;Mw	
Landscaping	Lndscp	Lndscp		Lndscp		Lndscp	
Net Adjustment (Total)		[ ] + [X] -	$ 18,900	[X] + [ ] -	$ 2,100	[X] + [ ] -	$ 6,400
Adjusted Sale Price of Comparables		Net Adj. -8.9% Gross Adj. 9.4%	$ 193,100	Net Adj. 1.2% Gross Adj. 11.7%	$ 181,100	Net Adj. 4.0% Gross Adj. 24.8%	$ 166,400

SALES COMPARISON APPROACH

Summary of Sales Comparison Approach: The subject is in close proximity to Weber State University and so are all the sales, except they are on the north side of campus and the subject is on the south side. The sales used are the most recent in the competiting neighborhood. Comps 1 & 2 have been remodeled to a similar extent as the subject. Comp #3 has been updated with paint and carpet but does not have granite in the kitchen, nor new furnace or windows. Less weight is given to comparable #3 because it has less remodeling. None of these sales have a basement kitchen and a $1,500 allowance was made in the basement finish line adjustment. Most weight and consideration is given to sales 1 & 2 because they were in similar condition as the subject based on interior photos in the MLS and exterior observation.

COST APPROACH

COST APPROACH TO VALUE

Site Value Comments

ESTIMATED [ ] REPRODUCTION OR [ ] REPLACEMENT COST NEW

Source of cost data

Quality rating from cost service — Effective date of cost data

Comments on Cost Approach (gross living area calculations, depreciation, etc.)

This approach typically only applies to new construction and newer homes. Older homes require an estimate for site value because the areas are fully developed, and another estimate for depreciation which takes into account any additions and upgrades over the years. The need to make several estimates makes this approach to value unreliable and difficult to support, therefore it is not used for existing, dated homes and improvements.

OPINION OF SITE VALUE				= $
Dwelling	1,169 Sq. Ft. @ $			= $ 0
Bsmt: 765 Sq.Ft.	Sq. Ft. @ $			= $ 0
Garage/Carport 440	Sq. Ft. @ $			= $ 0
Total Estimate of Cost-New				= $ 0
Less	Physical	Functional	External	
Depreciation				= $ (0)
Depreciated Cost of Improvements				= $ 0
"As-is" Value of Site Improvements				= $
INDICATED VALUE BY COST APPROACH				= $ 0

INCOME APPROACH

INCOME APPROACH TO VALUE

Estimated Monthly Market Rent $ — X Gross Rent Multiplier = $ — Indicated Value by Income Approach

Summary of Income Approach (including support for market rent and GRM)

RECONCILIATION

Indicated Value by: Sales Comparison Approach $ 185,000 — Cost Approach (if developed) $ 0 — Income Approach (if developed) $

Only the sales comparison approach to value has been developed. The cost approach was considered, but determined to be non-applicable due to the age of the subject improvements. The income approach typically does not apply to this type single family home and little rental data information is available. The sales comparison approach is best indicator and is supportable.

This appraisal is made [X] "as is," [ ] subject to completion per plans and specifications on the basis of a hypothetical condition that the improvements have been completed, [ ] subject to the following repairs or alterations on the basis of a hypothetical condition that the repairs or alterations have been completed [ ] subject to the following:

Based on the scope of work, assumptions, limiting conditions and appraiser's certification, my (our) opinion of the defined value of the real property that is the subject of this report is $ 185,000 as of 07/11/2012, which is the effective date of this appraisal.

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: University of Utah – Bond Sale for Dee Glen Smith Athletic Complex, Ambulatory Care Complex Parking Structure, and Ambulatory Care Complex Infrastructure

Issue

On May 18, 2012, the Board authorized the University of Utah to issue Series 2012 Revenue Bonds in an amount not to exceed $55 million, including $30.0 million for the Dee Glen Smith Athletic Complex, $16.3 million for the Ambulatory Care Complex Parking Structure, and $6.4 million for infrastructure for the future Ambulatory Care Complex, and issuance costs, capitalized interest, and a bond reserve if required. The bond issue was sold on June 22, 2012 and closed on July 10, 2012.

The final par amount of $46,235,000, the 5.0% maximum coupon rate (True Interest Cost of 3.216%), and date of final maturity are all within the parameters authorized by the Board. Additional information pertaining to the issue compared with Board approved parameters is provided on the attached Financing Summary Sheet, with actual results displayed in red.

Commissioner's Recommendation

This is an information item. No action is needed.

David L. Buhler
Commissioner of Higher Education

DLB/GLS
Attachment

WELLS FARGO SECURITIES

$55,000,000*
$46,235,000 (actual)
State Board of Regents of the State of Utah
University of Utah
Auxiliary and Campus Facilities System Revenue Bonds
Series 2012A

FINANCING SUMMARY

Purpose:	Proceeds from the sale of the Series 2012A Bonds will be used to finance (i) Construction of the proposed 'Dee Glen Smith Athletics Center, (ii) Construction of an Ambulatory Parking Project" (iii) Pay capitalized interest costs, if any, and pay traditional costs of issuance.
Par Amount:	Not-to-exceed $55,000,000 (includes costs of issuance, and capitalized interest, if determined necessary). Actual par amount was $46,235,000 and no debt service reserve fund or capitalized interest were needed.
Security:	The Series 2012A Bonds are payable from and secured by a pledge and assignment of the net revenues of the University of Utah's Auxiliary and Campus Facilities System which includes certain student building fees and auxiliary revenues (Parking, Bookstore and Student Housing, to name a few).
Ratings:	'AA/Aa2' (expected). Both of these ratings were confirmed
Method of Sale:	Negotiated public offering Confirmed
Underwriters:	TBD (The firms of RBC Capital Markets—RBC stands for "Royal Bank of Canada"—and

	Morgan Stanley were selected, via competitive RFP process)
Total Discount:	Not-to-exceed 2.00% (including an Underwriter's Discount of not-to-exceed 1.00%) There were no discount bonds sold and the total underwriter's discount was 0.307%, or $3.07/$1000 par amount of bonds
Sale Date:	TBD* Sale Date was Thursday, June 21, 2012
Closing Date:	TBD* Closing date will be July 10, 2012
Interest Payment Dates:	April 1st and October 1st, commencing October 1, 2012 Confirmed
Interest Basis:	30/360 Confirmed
Interest Rates:	Not-to-exceed 6.00% Maximum coupon rate was 5.00% (TIC of 3.216%)
Principal Payment Date:	April 1 Confirmed
Maturity:	Not-to-exceed 31-years from date of issuance. Actual final maturity is April 1, 2032, or slightly shorter than 20-years
Redemption:	Not-to-exceed 11 years @ 101%. 10-years at 100% was negotiated.
University of Utah Contacts:	Arnold B. Combe (801-581-6404)
Financial Advisor:	Kelly Murdock, Wells Fargo Securities (801-246-1732)
Trustee, Paying Agent/Reg.:	Wells Fargo Bank, National Association
Bond/Disclosure Counsel:	Blake Wade, Ballard Spahr, LLP (801-531-3031)
Underwriter's Counsel:	TBD Chapman and Cutler served as Underwriter's Counsel (Mr. Eric Hunter).

Preliminary, subject to change

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University – Facilities Master Plan Progress Report

Issue

Utah State University has requested the opportunity to present a progress report of significant items as they relate to the USU Facilities Master Plan, which was last approved by the Board of Regents on July 15, 2011. The attached letter summarizes the items they wish to address.

Commissioner's Recommendation

This is an information item. No action is required.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

UtahState University
VICE PRESIDENT FOR BUSINESS AND FINANCE

August 24, 2012

Commissioner David H. Buhler
Utah State Board of Regents
Board of Regents Building The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Subject: Utah State University Campus Master Plan Progress Report

Dear Commissioner Buhler:

Utah State University appreciates the opportunity to host the September 14, 2012 Board of Regents' meeting at the Logan campus. At the meeting, we request the opportunity to present a progress report of significant items as they relate to the USU Master Plan. The Master Plan received formal approval by the Board of Regents on July 15, 2011.

The University plans to provide an update on buildings located on the Logan campus including the College of Agriculture building, Regional Campuses and Distance Education building, Business building, and Athletic Strength and Conditioning Center and progress reports relating to statewide projects located on the Tooele Regional Campus, Brigham City Regional Campus, and USU Eastern Blanding Campus.

We appreciate your ongoing support of the Master Plan.

Sincerely,

David T. Cowley
Vice President for
Business and Finance

C: Greg Stauffer, Associate Commissioner for Finance and Facilities
Stan Albrecht, President
Charles Darnell, Associate Vice President for Facilities

1445 Old Main Hill Logan, UT 84322-1445 Ph: (435) 797-1146 Fax: (435) 797-0710 www.usu.edu/vpbus

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: Board of Regents

FROM: David L. Buhler

SUBJECT: Annual Report on Foreign Gifts and/or Donations

Summary

In 2010, the Legislature enacted policy for the "Disclosure of Donations to Higher Education Institutions". The law requires the Board of Regents to annually report to the Legislature certain donations of "foreign gifts", as cited below:

53B-1-202. Disclosure of foreign gifts to higher education institutions.

(1) (a) Except as provided in Subsection (1)(c), on or before July 31 of each year, a higher education institution shall disclose to the board, by filing a disclosure report described in Subsection (2), a gift received by the higher education institution of $50,000 or more from a foreign person, considered alone or in combination with all other gifts from the foreign person, during the period beginning July 1 and ending on June 30 immediately preceding the July 31 deadline.

(b) A higher education institution may rely on the following address of a foreign person to determine the citizenship or nationality of the foreign person if the citizenship or nationality is unknown:

(i) for a foreign person that is an individual, the principal residence; and

(ii) for a foreign person that is not an individual, the principal place of business.

(c) The $50,000 amount described in Subsection (1)(a) is increased to $250,000 if the gift, considered alone or in combination with all other gifts, described in Subsection (1)(a) is from a foreign person:

(i) with a principal residence or principal place of business located in the United States; and

(ii) with a permanent resident status:

(A) under Section 245 of the Immigration and Nationality Act; and

(B) for 10 years or more.

The required foreign donations report is included as an attachment to this memorandum. The report shows the University of Utah and Utah State University receiving a total of $617,000 in foreign donations; no other USHE institution received a foreign donation that fit the statutory requirements.

Commissioner's Recommendation

Information item only; no action is needed.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/DAM
Attachment

UTAH SYSTEM OF HIGHER EDUCATION

Building a Stronger State of Minds℠

Foreign Donations - Annual Report
September 2012

Overview

In 2010, the Legislature enacted HB 114. Entitled "Disclosure of Donations to Higher Education Institutions;" the bill went into effect on May 11, 2010. The law— Utah Code 53B-1-201— requires that the Board of Regents report a specific classification of "foreign" donations annually to the Legislature. This is the third annual report as required by law.

Summary

As per Regent's Policy R545— Disclosure of Foreign Donations— all higher education institutions have reported to the Commissioner's Office on foreign donations or gifts received. For the 2011-12 fiscal year, only the University of Utah and Utah State University have reportable donations to disclose. The table below summarizes these donation totals. Also attached is the detailed information provided by the University of Utah and Utah State University.

USHE Institution	Reportable Foreign Donations for FY 2012
University of Utah	$ 562,000
Utah State University	$ 55,000
Weber State University	None
Southern Utah University	None
Snow College	None
Dixie State College	None
Utah Valley University	None
Salt Lake Community College	None
Total	**$ 617,000**

A Gift from a Foreign Person Aggregating $50,000 or More - OR - from a Permanent Resident of the U.S. for at Least 10 Years Aggregating $250,000 or More

Disclosure of Foreign Donations FY 2011-12
University of Utah and Utah State University

University of Utah

Name of the Foreign Person/Individual	Country of Citizenship or Principal Residence	Date Received	$ Amount of Each Gift	Aggregate $ Amount per Foreign Person	If a Gift is Conditional - Describe Conditions/Restrictions
Lassonde Family Foundation	Canada	6/12/2012	150,000	150,000	Lassonde Entrepreneur Center Endowment
Aesculap AG	Germany	4/30/2012	100,000		Ronald I. Apfelbaum M.D. Endowed Chair
	Germany	12/30/2011	100,000	200,000	Ronald I. Apfelbaum M.D. Endowed Chair
Samyang Biopharmaceuticals Corp.	South Korea	5/31/2012	100,000	100,000	Pharmaceutical Polymers
Instituto Mexicano del Petroleo	Mexico	11/30/2011	62,000	62,000	Unrestricted Grant in Electromagnetics
Li Ka Shing (Canada) Foundation	Hong Kong	2/1/2012	50,000	50,000	Hinckley Institute of Politics
Sub-Total			$562,000		

Utah State University

Name of the Foreign Person/Individual	Country of Citizenship or Principal Residence	Date Received	$ Amount of Each Gift	Aggregate $ Amount per Foreign Person	If a Gift is Conditional - Describe Conditions/Restrictions
Nagendra P. Grandhi	India	10/14/2011	55,000	55,000	Checks were from his company, YshRaj Technologies Inc in Novi, Michigan
Sub-Total			55,000		
Grand Total			**$617,000**		

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: 2013-2014 USHE Budget Request

Issue

State statute requires the State Board of Regents (SBR) to "recommend a combined appropriation for the operating budgets of higher education institutions for inclusion in a state appropriations act" with the "dual objective" of considering higher education needs yet also being "consistent with the financial ability of the state" (UCA 53B-7-101(1,4bi)). Since 2011, with the enactment of Higher Education Mission Based Funding (SB97), statute also requires the State Board of Regents to include Employee Compensation, Mandatory Costs, Mission Based Funding, State Wide and Institutional Priorities and Unfunded Historic Growth in the combined budget request (UCA 53B-7-101(1bi-v)). This legislation also directs the Board to "recommend to the Legislature ways to address funding any inequities for institutions as compared to institutions with similar missions" (UCA 53B-7-101(2f)).

Formulation of an FY 2014 USHE Operating Budget recommendation for approval by the Board of Regents has involved consultation and feedback from numerous institutional players, including the Council of Presidents. Primary budget priorities for the coming request cycle will include: Compensation, Mission Based Funding, the 66% Goal, and several USHE system-wide initiatives focusing on Student Access and Institutional Collaborations. It will also include state initiatives for the School of Medicine at the University of Utah and for implementation of Dixie State College mission change (if such a change is approved by the Board prior to the legislative session).

Discussions concerning this request are still progressing as the Regent Meeting agenda is being finalized, so the FY 2014 USHE Budget Request Summary and supporting narrative will be hand carried to the meeting.

Commissioner's Recommendation

Following presentation and discussion at the Board meeting, the Commissioner recommends approval of the FY 2014 Budget Request Summary.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/PCM

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: General Consent Calendar

The Commissioner recommends approval of the following items on the Regents' General Consent Calendar:

A. Minutes
   1. Minutes of the Retreat and Board Meeting July 12 and 13, 2012, Southern Utah University, Cedar City, Utah.

B. Grant Proposals
   1. University of Utah – US Department of Education; "Autism Training"; $1,227,265. William R. Jenson, Principal Investigator.
   2. University of Utah – DHHS National Institutes of Health; "Magnetic CI June 2012"; $1,835,803. Jake J. Abbott, Principal Investigator.
   3. University of Utah – DHHS National Institutes of Health; "Repair of Membrane Defects"; $1,402,788. Russell J. Stewart, Principal Investigator.
   4. University of Utah – University of Minnesota; "Visually Accessible Spaces"; $1,377,346. William B. Thompson, Principal Investigator.
   5. University of Utah – US Department of State; "Internet Freedom"; $3,948,500. Erika George, Principal Investigator.
   6. University of Utah – US Agency for International Development; "Digital Iran"; $2,500,000. James R. Holbrook, Principal Investigator.
   7. University of Utah – NASA Science Mission Directorate; "Taphos"; $7,988,170. Marjorie A. Chan, Principal Investigator.
   8. University of Utah – American Iron and Steel Institute; "Novel Flash Ironmaking Process"; $6,032,853. Hong Yong Sohn, Principal Investigator.

9. University of Utah – Air Force Office of Scientific Research; "Catalyst and Fuel Interactions"; $4,049,998. Scott L. Anderson, Principal Investigator.

10. University of Utah – National Science Foundation; "RTG"; $2,396,109. Kenneth Bromberg, Principal Investigator.

11. University of Utah – DHHS National Institutes of Health; "Selective Opioid Detection"; $1,863,750. Jennifer M. Heemstra, Principal Investigator.

12. University of Utah – DHHS National Institutes of Health; "Protein-based Nanoreactors"; $1,862,917. Kenneth J. Woycechowsky, Principal Investigator.

13. University of Utah – DHHS National Institutes of Health; "Fused Ethers & Conopeptides"; $1,849,875. Jon D. Rainier, Principal Investigator.

14. University of Utah – DHHS National Institutes of Health; "Immunogenicity Assessment"; $1,831,625. Jennifer Shumaker-Parry, Principal Investigator.

15. University of Utah – DHHS National Institutes of Health; "Axon Regeneration C. Elegans"; $1,267,500. Michael Bastiani, Principal Investigator.

16. University of Utah – US Department of Health & Human Services; "YEP"; $1,500,000. Rosemary Alvarado, Principal Investigator.

17. University of Utah – NIH National Cancer Institute; "Targeting Cyclooxygenase-2"; $1,491,000. Matthew K. Topham, Principal Investigator.

18. University of Utah – DHHS National Institutes of Health; "MCRTP"; $2,673,845. Donald E. Ayer, Principal Investigator.

19. University of Utah – NIH National Institute of Dental and Craniofacial Research; "HNC Susceptibility Genes"; $3,592,805. Mia Hashibe, Principal Investigator.

20. University of Utah – Nora Eccles Treadwell Foundation; "CVRTI Core and Director's Fund"; $2,940,000. Kenneth W. Spitzer, Principal Investigator.

21. University of Utah – NIH National Heart, Lung and Blood Institute; "MRI Prediction of LV Function"; $2,995,221. Daniel Kim, Principal Investigator.

22. University of Utah – NIH National Cancer Institute; "NAC"; $2,030,778. Douglas Grossman, Principal Investigator.

23. University of Utah – NIH National Cancer Institute; "Stromal APC Haploinsufficiency"; $1,319,551. Sheri L. Holmen, Principal Investigator.

24. University of Utah – US Department of Energy; "Geo & Eng Factor Lq Shale"; $1,180,264. Milind Deo, Principal Investigator.

25. University of Utah – NIH National Cancer Institute; "Prostate Cancer Susceptibility"; $3,709,044. Lisa Anne Albright, Principal Investigator.

26. University of Utah – DHHS Substance Abuse and Mental Health Services Administration; "Region 8 ATTC"; $3,575,000. Barbara Nell Sullivan, Principal Investigator.

27. University of Utah – NIH National Heart, Lung and Blood Institute; "CineTSE"; $2,925,131. Dennis L. Parker, Principal Investigator.

28. University of Utah – NIH National Institute on Aging; "Amyloid Imaging & PE"; $2,516,351. Kevin M. Duff, Principal Investigator.

29. University of Utah – NIH National Heart, Lung and Blood Institute; "Vasoconstriction in HF"; $1,868,750. David Wray, Principal Investigator.

30. University of Utah – DHHS National Institutes of Health; "T Cell Maturation"; $1,863,750. Gerald J. Spangrude, Principal Investigator.

31. University of Utah – NIH National Institute of Neurological Disorders and Stroke; "Wnt Regulation of Radial Glia"; $1,863,750. Richard Dorsky, Principal Investigator.

32. University of Utah – NIH National Institute of Diabetes, Digestion and Kidney Disorders; "Prorenin and Heart and Kidney"; $1,863,750. Yufeng Huang, Principal Investigator.

33. University of Utah – NIH National Institute of Diabetes, Digestion and Kidney Disorders; "Role of MnSOD in Adipogenesis"; $1,863,750.Sihem Boudina, Principal Investigator.

34. University of Utah – National Institutes of Health; "Cellular Morphogenesis"; $1,863,750. Mark M. Metzstein, Principal Investigator.

35. University of Utah – DHHS National Institutes of Health; "Borrelia Burgdorferi Mitogen"; $1,863,750. Janis J. Weis, Principal Investigator.

36. University of Utah – DHHS National Institutes of Health; "NIH R01 Grant"; $1,863,750. Jun Yang, Principal Investigator.

37. University of Utah – DHHS National Institutes of Health; "Defining the Role of miR-155"; $1,863,750. Ryan M. O'Connell, Principal Investigator.

38. University of Utah – NIH National Institute of Child Health and Human Development; "Sperm Selection for Art"; $1,863,750. Douglas T. Carrell, Principal Investigator.

39. University of Utah – DHHS National Institutes of Health; "Shape Modeling FAI"; $1,737,904. Andrew Edward Anderson, Principal Investigator.

40. University of Utah – DHHS National Institutes of Health; "Reductive Stress Cardiac" $1,569,972. Rajasekaran Namakkal Soorappan, Principal Investigator.

41. University of Utah – CDC National Center for Injury, Prevention and Control; "Botto CDC CHDs U50"; $1,430,189. Lorenzo Davide Botto, Principal Investigator.

42. University of Utah – DHHS National Institutes of Health; "Research Ethics Training"; $1,150,000. Stephen Alder, Principal Investigator.

43. University of Utah – NIH National Institute on Deafness and Other Communication Disorders; "Pathways in the Olfactory Bulb"; $1,851,375. Dale Matthew Wachowiak, Principal Investigator.

44. University of Utah – Center for Nuclear Eng Prog; "NEUP-IRP2 UNF"; $4,399,886. Tatjana Jervemovic, Principal Investigator.

45. University of Utah – DOD Defense Advanced Research Projects Agency; "Chip Scale Trapped Atom Ring G"; $3,211,081. Carlos Mastrangelo, Principal Investigator.

46. University of Utah – DOD Defense Advanced Research; "Milhdem"; $2,916,267. Massood Tabib-Azar, Principal Investigator.

47. University of Utah – NIH National Institute of Neurological Disorders and Stroke; "Neuronal Pathfinding"; $1,968,250. Vladimir Hlady, Principal Investigator.

48. University of Utah – DHHS Administration for Children & Families; "SFP: UT Regional Partnership"; $4,103,546. Karol Kumpfer, Principal Investigator.

49. University of Utah – US Department of Energy; "Mowry DOE/NETL"; $1,466,620. Lauren P. Birgenheier, Principal Investigator.

50. University of Utah – DHHS National Institutes of Health; "Directed Posttranslation"; $2,212,375. Eric W. Schmidt, Principal Investigator.

51. University of Utah – NIH National Institute on Drug Abuse; "Methamphetamine Toxicity"; $2,120,851. Kristen A. Keefe, Principal Investigator.

52. University of Utah – NIH Institute of Biomedical Imaging and Bioengineering; "Hydroxyapatite Nucleation"; $1,862,500. Jiyuan Yang, Principal Investigator.

53. University of Utah – NIH National Heart Lung & Blood Institute; "Polymeric Gene Carriers"; $1,342,125. Sung Wan Kim, Principal Investigator.

54. University of Utah – DHHS National Institutes of Health; "Flagellar Switch Complex"; $1,825,913. David F. Blair, Principal Investigator.

55. University of Utah – DHHS National Institutes of Health; "Measuring Drug Interactions"; $1,391,000. John C. Conboy, Principal Investigator.

56. University of Utah – Patient Centered Outcomes; "Couple Treatment Decisions"; $1,628,409. Cynthia Berg, Principal Investigator.

57. University of Utah – DHHS Administration for Children & Families; "Utah Initiative"; $3,058,570. Norma J. Harris, Principal Investigator.

58. University of Utah – NIH National Eye Institute; "Retinal Progenitors"; $2,716,241. Edward M. Levine, Principal Investigator.

59. University of Utah – NIH National Institute of Child Health & Human Development; "Physical Activity and Prolapse"; $2,678,207. Ingrid E. Nygaard MD, Principal Investigator.

60. University of Utah – NIH National Eye Institute; "Biochem & Pharmocol of MC"; $1,906,650. Paul S. Bernstein, Principal Investigator.

61. University of Utah – NIH National Eye Institute; "Interference of VEGF"; $1,885,025. Balamurali Krishna Ambati, Principal Investigator.

62. University of Utah – DHHS National Institutes of Health; "R01 Nano"; $1,868,750. Xuli Wang, Principal Investigator.

63. University of Utah – DHHS National Institutes of Health; "RNAi"; $1,868,750. Xuli Wang, Principal Investigator.

64. University of Utah – DHHS National Institutes of Health; "Mitochondrial Quality Control"; $1,863,750. Jared P. Rutter, Principal Investigator.

65. University of Utah – DHHS National Institutes of Health; "Novel function of microRNAs"; $1,863,750. Li Wang, Principal Investigator.

66. University of Utah – NIH National Cancer Institute; "NIH R01 DT A1"; $1,862,500. Xuli Wang, Principal Investigator.

67. University of Utah – NIH National Institute of Diabetes and Digestive and Kidney Diseases; "Lipid Derived Factors"; $1,838,000. Tianxin Yang, Principal Investigator.

68. University of Utah – CDC National Institute of Occupational Safety & Health; "Wheel"; $1,802,644. Maureen Murtaugh, Principal Investigator.

69. University of Utah – US Department of Defense; "Tissue Transplantation"; $1,683,024. Jayant Agarwal, Principal Investigator.

70. University of Utah – DHHS National Institutes of Health; "Influenza x-hemagglutin"; $1,506,010. Susan C. Bock, Principal Investigator.

71. University of Utah – NIH National Heart Lung & Blood Institute; "Ischemia-reperfusion Injury"; $1,492,000. Peter John Gruber, Principal Investigator.

72. University of Utah – US Department of Defense; "PR121635 – 1H and 31P MR spec"; $1,112,634. Eun-Kee Jeong, Principal Investigator.

73. University of Utah – DHHS National Institutes of Health; "Cancer Screening"; $1,042,625. Dean Y. Li, Principal Investigator.

74. University of Utah – Nanoshell LLC; "STTR Phase II Resub-Blood Sub"; $1,469,415. Agnes, Ostafin, Principal Investigator.

75. University of Utah – NIH National Institute on Drug Abuse; "Adolescent Cannabis Use Resub"; $1,863,750. Deborah Ann Yurgelun-Todd, Principal Investigator.

76. Utah State University – UT System of Higher Education-University of Utah; "National Children's Study-Cache Valley Secondary Site (Subcontract w/University of Utah Medical Center)"; $1,017,753. Mark Innocenti, Principal Investigator; Vonda Jump, Co-Principal Investigator. (Augmentation).

77. Utah State University – US Department of Health and Human Services-National Institutes of Health (NIH); "Regulation of Protein Arginine Methylation by RNA Surveillance Factors"; $1,741,937. Sean Johnson, Principal Investigator; Joan Hevel, Co-Principal Investigator.

78. Utah State University – US Department of Ag-National Institute of Food & Ag (NIFA); "Decreased Teen Obesity Risk Through Food Skills Education Enhanced with IPad Technology"; $4,635,726. Martha Archuleta, Principal Investigator; Karin Allen, Lindsey Shirley, Heidi Wengreen, Co-Principal Investigators.

79. Utah State University – UT Department of Health; "Center for Persons with Disabilities; "Early Intervention Program"; $1,513,000. Susan Olsen, Principal Investigator.

80. Utah State University – US Department of Education; "PULSE: A Weekly Summary of Critical Teacher Practices from the Student Perspective"; $1,490,043. Matthew Taylor, Principal Investigator; Richard West, Daniel Coster, Co-Principal Investigators.

81. Utah State University – US Department of Education-Institute of Education Sciences; "Online Training for Parents of Children with Deafblindness to Improve Children's Communication"; $1,499,724. Mark Innocenti, Principal Investigator; Linda Alsop, Co-Principal Investigator.

82. Utah State University – Department of Education (USDOED); "Project Geepers*Math 2 Proto:GM2"; $1,438,198. Brett Shelton, Principal Investigator; Andrew Walker, Co-Principal Investigator.

83. Utah State University – US Department of Education-Institute of Education Services; "Comparison of Two Working Memory Training Programs on Memory and Reading Outcomes for Students with"; $3,497,128. Timothy Slocum, Principal Investigator; Ron Gillam, Sandra Gillam, Kerry Jordan, Co-Principal Investigators.

84. Utah State University – US Department of Education-Institute of Education Sciences; "Bully Prevention in Positive Behavior Support: Evaluating a Systemic Approach to Bully Prevention"; $3,499,070. Scott Ross, Principal Investigator.

85. Utah State University – US Department of Education; "Development & Evaluation of a Person-Centered, Interdisciplinary Personnel Prep Program"; $1,250,000. Robert Morgan, Principal Investigator.

86. Utah State University – US Department of Education-Office of Special Education Programs and Projects (OSEP); "Personnel Development to Improve Services & Results for Children with Disabilities"; $1,251,651. Kristina Blaiser, Principal Investigator; Karen Munoz, Co-Principal Investigator.

87. Utah State University – US Department of Education-Institute of Education Sciences; "Supporting Early Language and Literacy in Informational Text"; $1,499,431. Sandra Gillam, Principal Investigator; Ray Reutzel, Jamison Fargo, Steven Camicia, Sarah Clark, Nicole Pyle, Cindy Jones, Ron Gillam, Co-Principal Investigators.

88. Utah State University – Alberta Environment and Water; "Alberta Environmental Aglite Study"; $666,290. Mike Wojcik, Principal Investigator. (Revision).

89. Utah State University – NASA-General; "Mass Spectrometry of the Tubopause Region (MSTR)"; $1,321,493. Chad Fish, Principal Investigator.

90. Utah State University – NASA Langley Research Center; "Rocket-borne Storm Energetics of Auroral Dosing in the E-region"; $1,581,338.

91. Utah State University – US National Science Foundation; "IGERT: Boundary Spanning Transformations for Sustainability"; $3,476,968. Michelle Baker, Principal Investigator; Eugene Schupp, Ronda Callister, Joanna Endter-Wada, Mark Brunson, Keith Gibson, Douglas Jackson-Smith, Zhao Ma, Co-Principal Investigators.

92. Utah State University – US Department of Health and Human Services-National Institutes of Health (NIH); "Gene X Environment Interactions, Alzheimer's Disease & Pre-Disease Endophenotypes"; $3,804,724. Maria Norton, Principal Investigator; Ron Munger, Christopher Corcoran, Joann Tschanz, Co-Principal Investigators.

93. Utah State University – US Department of Education-Office of Special Ed & Rehab Services; "Personnel Preparation for Teachers of Birth to 5-Year-Old Children Who are Deaf or Hard of Hearing"; $1,247,502. Lauri Nelson, Principal Investigator; Karl White, Co-Principal Investigator.

94. Utah State University – American Council on Education; "Leading the Way: Improving Opportunities for Rwandan Women to Empower..."; $1,258,006. Vonda Jump, Principal Investigator; Ann Austin, Co-Principal Investigator.

95. Utah State University – NASA Goddard Space Flight Center; "Joint Polar Satellite System (JPSS) 5 Year IDIQ"; $-301,964. Deron Scott, Program Manager. (Revision)

96. Utah State University – Naval Research Lab; "MicroCID Advanced Data Transfer Equipment Reengineering and Test Development"; $2,709,435. Amy Secrist, Doug Jewell, Program Manager.

97. Utah State University – Department of Energy; "Occupancy Sensing for Energy Reduction"; $3,143,057. Jeff MUHS, Program Manager.

98. Utah State University – Air Force; "Virtualized Imagery Processing Capability (VIP-C) Upgrade for Senior Year Electro-Optical Reconnaissance System (SYERS) Spectral Support"; $1,378,370.08. Lance Fife, Program Manager.

C. Awards

1. University of Utah – National Science Foundation; "Integrated Training for Contin"; $2,134,899. Douglas Kip Solomon, Principal Investigator.

2. University of Utah – University of Nevada Reno; "Nuclear & EM Research"; $1,300,428. Mano Misra, Principal Investigator.

3. University of Utah – State of Utah; "UT IV-E Training Contract"; $2,001,697. Norma J. Harris, Principal Investigator.

4. University of Utah – NIH National Institute of Child Health and Human Development; "National Children's Study Wave-1"; $2,000,000. Edward B. Clark, Principal Investigator.

5. University of Utah – NIH National Cancer Institute; "Cancer Center Support Grant"; $1,454,511. Mary Beckerle, Principal Investigator.

6. University of Utah – NIH National Center for Advancing Translation Sciences; "University Of Utah CTSA"; $4,091,653. Donald McClain, Principal Investigator.

7. University of Utah – DHHS Centers for Disease Control & Prevention; "ERC Training Grant"; $1,378,244. Kurt Timothy Hegmann, Principal Investigator.

8. University of Utah – Polynoma LLC; "Polynoma 103A-301"; $1,017,757. Robert H.I. Andtbacka, Principal Investigator.

9. University of Utah – NIH National Cancer Institute; "SEER"; $1,690,519. Antoinette Stroup, Principal Investigator.

10. University of Utah – Biorestorative Therapies Inc; "Biologic Tissue Research"; $1,500,000. Amit N. Patel, Principal Investigator.

11. Utah State University – UT System of Higher Education-University of Utah; "National Children's Study-Cache Valley Secondary Site (Subcontract w/University of Utah Medical Center)"; $1,017,750. Mark Innocenti, Principal Investigator; Vonda Jump, Co-Principal Investigator.

12. Utah State University – US Department of Ag-National Institute of Food & Ag (NIFA); "2012 Implementation of Western Region Sustainable Agriculture Research and Education (SARE) Proposal"; $3,144,481. Phil Rasmussen, Principal Investigator.

13. Utah State University – Misc Federal Sponsors; "Optimus Prime"; $1,400,000. Doug Jewell, Principal Investigator.

14. Utah State University – US Department of Education; "To Operate a Regional Resource Center Region No. 5"; $1,300,000. John Copenhaver, Principal Investigator.

15. Utah State University – National Science Foundation (NSF); "WF-2173:s12-SSI: An Interactive Software Infrastructure for Sustaining Collaborative Community Innovation in..."; $2,401,393. David Tarboton, Principal Investigator; Jeffery Horsburgh, Co-Principal Investigator.

16. Utah State University – UT Department of Human Services; "USU Title IV-E Child Welfare Training Project"; $1,123,034. Derrik Tollefson, Principal Investigator; Terry Peak, Co-Principal Investigator.

17. Utah State University – US National Science Foundation; "iUtah-Urban transitions and Aridregion Hydro-Sustainability"; $4,800,000. Todd Crowl, Principal Investigator; Michell Baker, Douglas Jackson-Smith, Jeffery Horsburgh, Co-Principal Investigators.

18. Utah State University – US Department of Ag-National Institute of Food & Ag (NIFA); "2012 Implementation of Western Region Sustainable Agriculture Research and Education (SABE) PDP"; $1,065,657. Phil Rasmussen, Principal Investigator.

19. Utah State University – UT Department of Workforce Services – Office of Child Care; "CCPDI FY13" $1,485,000. Ann Austin, Principal Investigator.

20. Utah State University – Alberta Environment and Water; "Alberta Differential Absorption Lidar"; $1,403,901. Scott Anderson, Principal Investigator.

D. Academic Items Received and Approved

1. New Programs
   a. University of Utah – Graduate Certificate in Patient Centered Outcomes
   b. Utah State University – Minor in Criminal Justice

2. Name Change
   a. Snow College – Division of Fine Arts to Division of Fine Arts, Communications, and New Media
   b. Snow College – Division of Science and Mathematics to Division of Natural Science and Mathematics
   c. Snow College – Division of Social and Behavioral Science to Division of Social and Behavior Science

3. New Unit
   a. University of Utah – Urban Institute for Teaching Education *(Provisional Approval)*
   b. University of Utah – Center for Law and Biomedical Sciences *(Provisional Approval)*
   c. University of Utah – Center for Innovation *(Provisional Approval)*
   d. University of Utah – Center for Global Justice *(Provisional Approval)*
   e. University of Utah – Criminal Justice Academy *(Provisional Approval)*
   f. University of Utah – Ecological Planning Center *(Provisional Approval)*
   g. Utah Valley University – Center for Global and Intercultural Engagement
   h. Snow College – Center for New Media

4. Unit Consolidation
   Snow College – Division of Business and Division of Career and Technical Education to Division of Business and Applied Technologies

5. Unit Transfer
   Snow College – Department of Communications from Division of Humanities to Division of Fine Arts, Communications, and New Media

6. Three-Year Report
   University of Utah – Master of Science in Information Science (MSIS)

7. Five-Year and Seven-Year Reviews
   a. University of Utah – Department of Atmospheric Sciences
   b. University of Utah – Department of Ballet (*with caveat the institution will provide the Regents a copy of the Graduate Council one-year report*)
   c. University of Utah – Department of Computing
   d. University of Utah – Department of Exercise Sports Science
   e. University of Utah – Department of Geology/Geophysics
   f. University of Utah – Department of Metallurgical Engineering
   g. University of Utah – Department of Occupational Therapy
   h. University of Utah – Department of Oncological Science
   i. University of Utah – Department of Philosophy
   j. University of Utah – Department of Psychology
   k. University of Utah – Department of Special Education
   l. University of Utah – Honors College
   m. Snow College – Department of Communications
   n. Snow College – Department of English-Philosophy
   o. Snow College – Department of Foreign Language

8. Suspension
   Dixie State College – Bachelor of Science in Aviation Management

David L. Buhler
Commissioner of Higher Education

DLB/KLS
Attachments

UTAH STATE BOARD OF REGENTS
SOUTHERN UTAH UNIVERSITY
JULY 12 & 13, 2012

Contents of Minutes

Contents of Minutes continued

UTAH STATE BOARD OF REGENTS
SOUTHERN UTAH UNIVERSITY, CEDAR CITY, UTAH
JULY 12, 2012

RETREAT
MINUTES

Regents Present
Bonnie Jean Beesley, Chair
Daniel W. Campbell, Vice Chair
Keith M. Buswell
Wilford W. Clyde
France A. Davis
James T. Evans
Meghan Holbrook
Nolan E. Karras
Thomas D. Leavitt
Robert S. Marquardt
Carol Murphy
Jed H. Pitcher
Robert W. Prince
Mark R. Stoddard

Regents Excused
Katharine B. Garff
Erik Mikkelsen
Marlon O. Snow
Teresa L. Theurer
John H. Zenger

Office of the Commissioner
William A. Sederburg, Commissioner
David Buhler, Associate Commissioner for Public Affairs
Elizabeth Hitch, Associate Commissioner for Academic Affairs
Gregory L. Stauffer, Associate Commissioner for Finance and Facilities
Cameron K. Martin, Associate Commissioner for Economic Development and Planning
Gary Wixom, Assistant Commissioner for Academic Affairs
Phyllis Safman, Assistant Commissioner for Academic Affairs
Blair Carruth, Assistant Commissioner for Academic Affairs
Carson Howell, Utah Data Alliance Policy Research Manager
Andrew Stone, Special Assistant to the Commissioner

Institutional Presidents
David W. Pershing, University of Utah
Stan L. Albrecht, Utah State University
F. Ann Millner, Weber State University
Michael T. Benson, Southern Utah University
Scott L. Wyatt, Snow College
Stephen D. Nadauld, Dixie State College
Cynthia A. Bioteau, Salt Lake Community College

Institutional Chief Academic Officers were also present. The signed role is on file at the Commissioner's Office.

The Regents began the day at 11:30 a.m. at a lunch meeting with the Southern Utah University Board of Trustees. The Retreat began at **1:15 p.m.** and concluded at **3:30 p.m.**

Commissioner Sederburg discussed the whitepaper he drafted that outlined how the Utah System of Higher Education could implement ways to reach the goal of having 66% of Utahns with a college degree or certificate by the year 2020. Key highlights to the whitepaper include: changing the age group from 25-64 to 25-34 which is the age of most students currently in the system; using technology to award Associate degrees to students who have met the requirements, bypassing the graduation application process; increasing the number of high school graduates entering the system; and improving the college freshman to sophomore retention rates.

An open discussion of the topic continued. Chair Beesley asked Presidents and Commissioner Elect Buhler to present their recommendations at the next meeting in September.

It was moved by Regent Davis and seconded by Regent Pitcher to meet in Executive Session for the purpose of discussing legal and personnel matters. The motion carried.

The retreat concluded at **3:30 p.m.** and the Regents met in Executive Session until **5:00 p.m.**

Following the Retreat, the Regents were invited to attend a dinner hosted by President Benson and a play as part of the 2012 Utah Shakespeare Festival.

STATE BOARD OF REGENTS MEETING
SOUTHERN UTAH UNIVERSITY, CEDAR CITY, UTAH
HAZE HUNTER CONFERENCE CENTER
JULY 13, 2012

COMMITTEE OF THE WHOLE
MINUTES

Regents Present
Bonnie Jean Beesley, Chair
Daniel W. Campbell, Vice Chair
Keith M. Buswell
Wilford W. Clyde
France A. Davis
James T. Evans
Meghan Holbrook
Nolan E. Karras

Regents Excused
Katharine B. Garff
Erik Mikkelsen
Marlon O. Snow
Teresa L. Theurer

Thomas D. Leavitt
Robert S. Marquardt
Carol Murphy
Jed H. Pitcher
Robert W. Prince
Mark R. Stoddard
Teresa L. Theurer
John H. Zenger

Office of the Commissioner
William A. Sederburg, Commissioner
Elizabeth Hitch, Associate Commissioner for Academic Affairs
Cameron Martin, Associate Commissioner for Economic Development and Planning
Gregory L. Stauffer, Associate Commissioner for Finance and Facilities
David Buhler, Associate Commissioner for Public Affairs
David Feitz, Associate Commissioner and Executive Director, UHEAA

Institutional Presidents
David W. Pershing, University of Utah
Stan L. Albrecht, Utah State University
F. Ann Millner, Weber State University
Michael T. Benson, Southern Utah University
Scott L. Wyatt, Snow College
Stephen D. Nadauld, Dixie State College
Ivan Wilson for Matthew S. Holland, Utah Valley University
Cynthia A. Bioteau, Salt Lake Community College

Other Commissioner's Office and institutional personnel were also present. The signed role is on file in the Commissioner's Office.

Chair Beesley called the Regents to order in the Committee of the Whole at **7:30 a.m. It was moved by Regent Stoddard and seconded by Regent Davis to meet in Executive Session for the purpose of discussing legal and personnel matters. The motion passed.**

The Regents met in Executive Session until 9:00 a.m. and then met in board committees until 10:30 a.m. Chair Beesley called the Committee of the Whole to order at **10:42 a.m.**

Administration of Oath of Office to Regent Thomas D. Leavitt

Having served one year as a non-voting Student Regent, Chair Beesley administered the oath of office to now voting Student Regent Thomas D. Leavitt.

Recognizing Daniel W. Campbell as Vice Chair

Chair Beesley recognized new Vice Chair of the Board of Regents Daniel W. Campbell. She reported that Vice Chair Campbell is already fully engaged and dedicated to make a difference for the system.

Chair Beesley also recognized Commissioner Designee David L. Buhler. She reported that his confirmation of the Utah State Senate is scheduled for August 15.

Reports of Board Committees

Programs/Planning Committee

University of Utah – Bachelor of Arts in Religious Studies (TAB A)
Regent Davis reported on and moved the approval of the new bachelor degree. Regent Prince seconded the motion. The motion carried.

University of Utah – Master of Science in Geographic Information Science (TAB B)
Regent Davis reported on and moved the approval of the new GIS masters' degree. Regent Leavitt seconded the motion. The motion carried.

University of Utah – Doctor in Dental Surgery (TAB C)
Regent Davis reported on this new program and University of Utah Vice President Vivian Lee was invited to speak on the proposal. **It was moved by Regent Davis and seconded by Regent Stoddard to approve the new program. The motion carried.**

Utah State University – Minor in Teaching American Sign Language in Secondary Education (TAB D)
Regent Davis moved the approval of this new program and Regent Marquardt seconded the motion. The motion carried.

2012 Report for the HigherEdUtah2020 Plan Timeline (TAB E)
USHE Roles and Authority Annual Orientation (TAB F)
Regent Davis reported that the above items are information only. No action was taken. There were no questions. This completed Regent Davis' report.

Finance/Facilities Committee

Southern Utah University – Campus Master Plan Approval (TAB G)
Regent Pitcher reported that the last review of SUU's master plan was in 2010 and moved the approval of the minor adjustments to the plan. It was seconded by Regent Holbrook and the motion carried.

Weber State University – Sale of University Property in Kaysville, Utah (TAB H)
Regent Pitcher reported on the proposed property sale and moved the approval of the sale. It was seconded by Regent Holbrook and the motion carried.

Weber State University – Purchase of 10 Acre Property in Hooper, UT for a Future Branch Campus (TAB I)
Regent Pitcher reported on the proposed property purchase and moved the approval of the purchase. Regent Stoddard seconded the motion. The motion carried.

Weber State University – Long-term Lease of Portions of the New Davis Campus Professional Programs and Classroom Building to the Northern Utah Academy for Math, Engineering, and Science (NUAMES) (TAB J)
Regent Pitcher invited WSU Vice President Norm Tarbox who reported on the complicated lease with NUAMES. **It was moved by Regent Pitcher and seconded by Regent Holbrook to approve the long-term lease. The motion carried.**

Weber State University – Long-term Land Lease with Weber County for Weber County Ice Sheet Expansion (TAB K)
WSU Vice President Norm Tarbox also reported on the proposed long-term land lease with Weber County. **It was moved by Regent Pitcher and seconded by Regent Davis to approve the lease. The motion carried.**

Proposed Policy: R571 – Delegation of Purchasing Authority (TAB L)
Regent Pitcher reported that the Finance and Facilities Committee would like to table this item pending further study and refinement, and bring the item back to the board at the September 14 board meeting.

IRS Position on Tax-Exempt Student Loan Bonds(TAB M)
Regent Pitcher moved that the board authorize UHEEA to enter into the VCAP and begin negotiating with the IRS. Regent Campbell seconded the motion. The motion carried.

Work Program Revisions for FY 2012 & FY 2013 (TAB N)
Regent Pitcher asked Dr. Gregory Stauffer to report on this consent item and it was reported the work program revisions need approval by the board. **It was moved by Regent Pitcher and seconded by Regent Holbrook. The motion carried.**

Southern Utah University – Juniper Hall Replacement (TAB O)
Regent Pitcher reported that the committee was favorably impressed with this report and anticipates hearing more in an upcoming meeting.
Sale of the Utah Valley University Series 2012A Student Center Building and Unified Center Revenue Bonds (TAB P)
Sale of the Weber State University Series 2012 Student Facilities System Revenue Bonds (TAB Q)
2012-13 Mission Based Funding Initiatives (TAB R)
Associate Commissioner Gregory Stauffer gave a short report on these information items; no action was taken by the board. This completed Regent Pitcher's report.

General Consent Calendar (TAB U)

On a motion by Regent Karras and a second by Regent Davis, the following items were approved on the Regents' General Consent Calendar:

A. Minutes of the Board Meeting May 18, 2012, at Snow College, Ephraim, Utah; and of the Board Meeting June 21, 2012 at the Board of Regents Building, Salt Lake City, Utah.
B. Grant Proposals
C. Awards
D. Academic Items Received and Approved

Commissioner's Report

See attached for the Commissioner's report.

Resolutions

Thomas Anderson

Chair Beesley presented Thomas Anderson, Assistant Attorney General, with a resolution honoring his service to the Utah System of Higher Education and the Board of Regents as general counsel. **Regent Karras moved the adoption of the resolution and it was seconded by Regent Holbrook. The motion carried unanimously.**

Katharine B. Garff

Regent Holbrook read a resolution honoring Katharine B. Garff for her service to the State Board of Regents and all that she has done for education in the state of Utah. **Regent Holbrook moved the adoption of the resolution and it was seconded by Regent Davis. The motion carried unanimously.**

William A. Sederburg

Commissioner Sederburg was presented with a resolution honoring him for his service as a president for Utah Valley University and as Commissioner of Higher Education for the last four years. Among those who spoke in his honor included Chair Beesley, Associate Commissioner Cameron Martin, UVU Vice President Val Peterson and President Michael Benson. **Regent Campbell moved the adoption of the resolution and it was seconded by Regent Davis. The motion carried unanimously.**

State of the University

President Michael Benson gave a presentation on the state of Southern Utah University (SUU). He reported on the current issues of the university in relation to their mission as "a dynamic teaching and learning community inspired by its unique natural surroundings" and as Utah's designated public liberal arts and university.

The Committee of the Whole adjourned at 12:46 p.m.

_____

Kirsten Schroeder, Executive Secretary

Date Approved:
Attachment

Commissioner's Report

State Board of Regents
Southern Utah University
July 13, 2012

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

Presented by: William A. Sederburg

Continued Involvement

- Curriculum for a higher education course in the Educational Leadership & Policy department
- Chair a National Committee with the American Association of State Colleges and Universities (AASCU)
- Developing computer simulations on being a college president
- Assist Regents as requested

Congratulations

Commissioner David L. Buhler

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds

Changes in OCHE

Andrea Cox

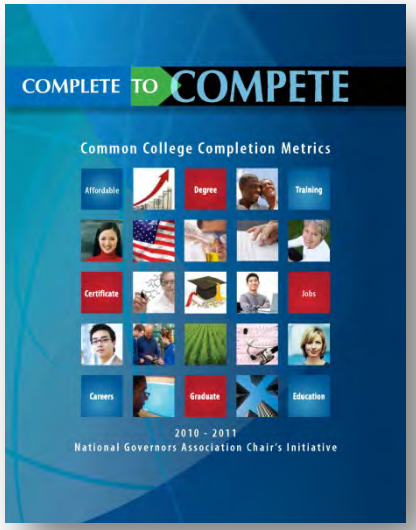
College Access Challenge Grant (CACG) Manager

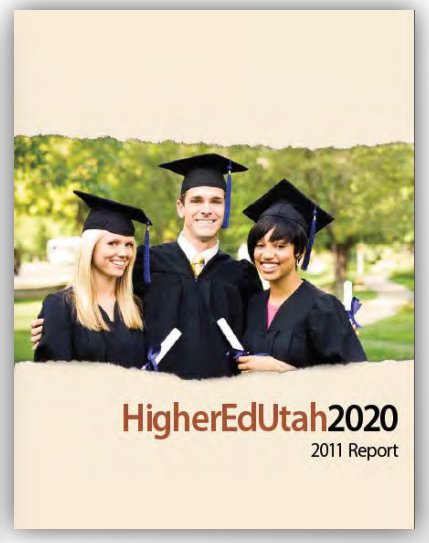
Christie Fox, PhD

Utah Scholars Program Coordinator

Quick Update

- Weber State Presidential Search Process
- 2012 Report for the 2020 Plan Update
- NGA Grant Completion
- Technology Intensive Concurrent Enrollment
- SB 286- Online College Readiness Assessment





UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds

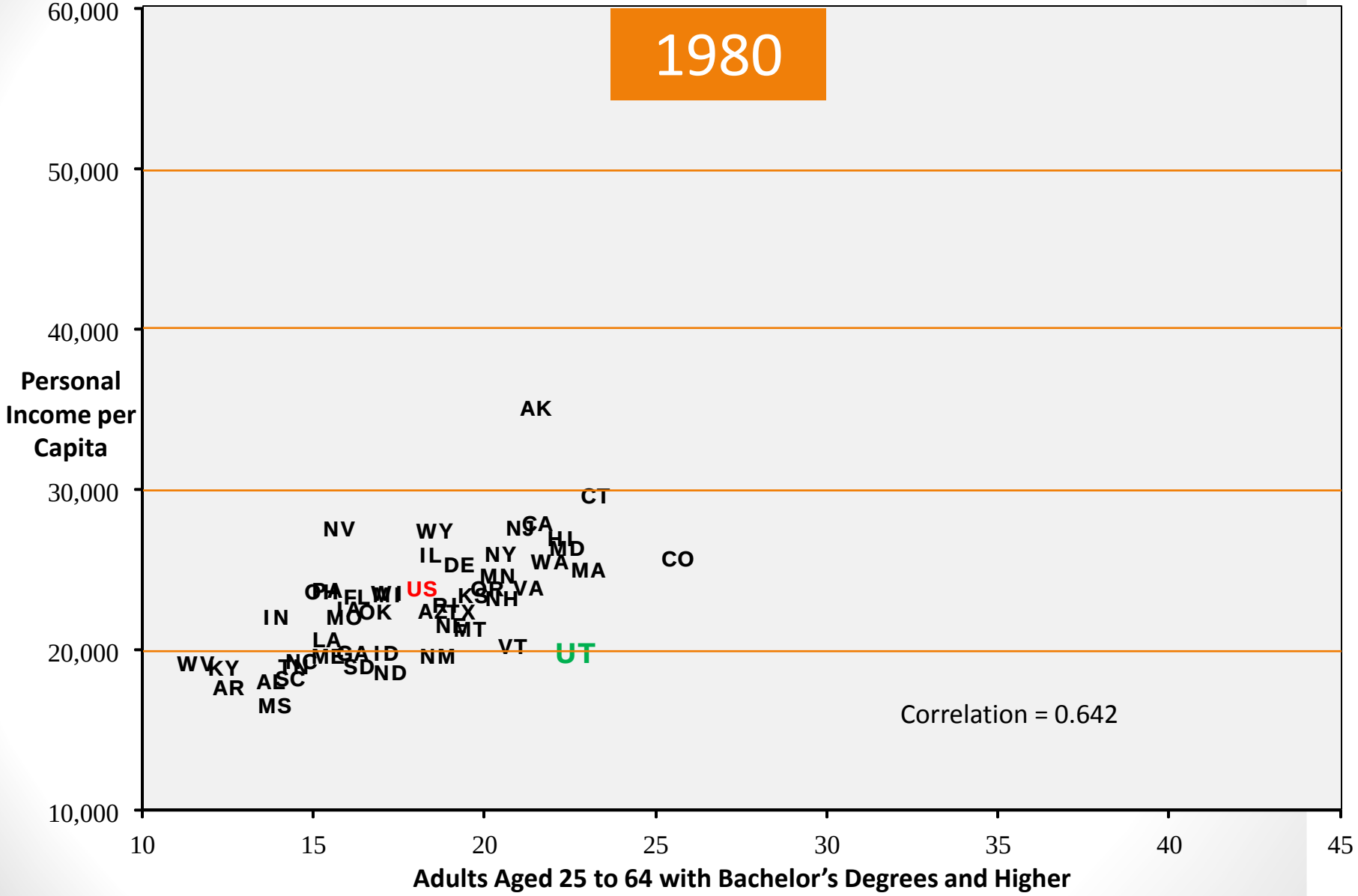
Upcoming Events

- USHE Roles and Authority Annual Orientation
  - August 14th / Board of Regents Building
- Senate Confirmation Hearing
  - August 15th/ Utah State Capitol Building
- Interim Higher Education Appropriation Subcommittee
  - August 16th / Utah State Capitol Building
- Regents Planning Retreat
  - September 13th / Utah State University

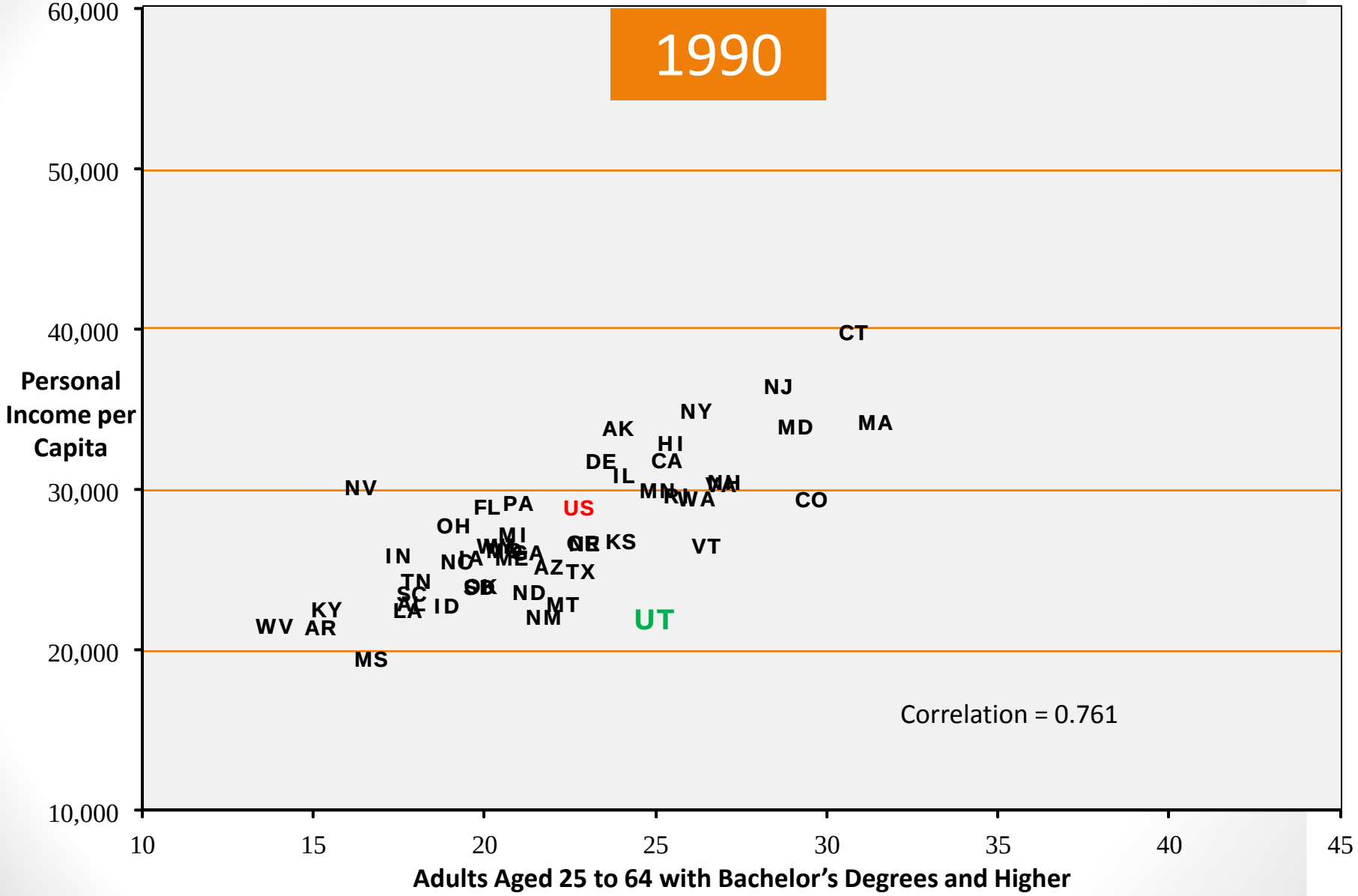
Educational Attainment and Personal Income

- The National Center of Higher Education Management Systems (NCHEMS) finds the correlation between state per capita income and the percent of the public with a baccalaureate degree increased from .6 to .83 in twenty-five years.

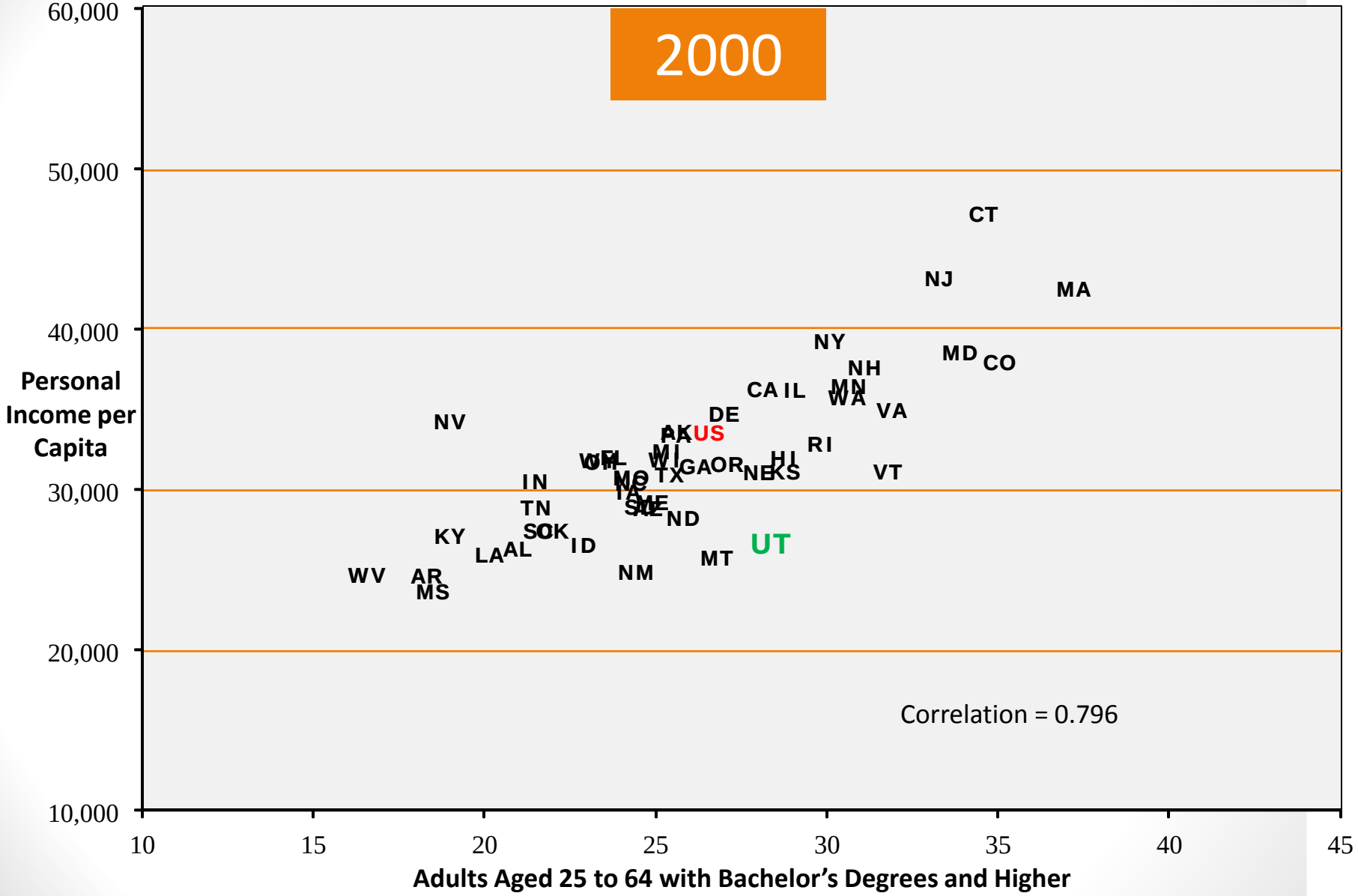
Educational Attainment and Personal Income



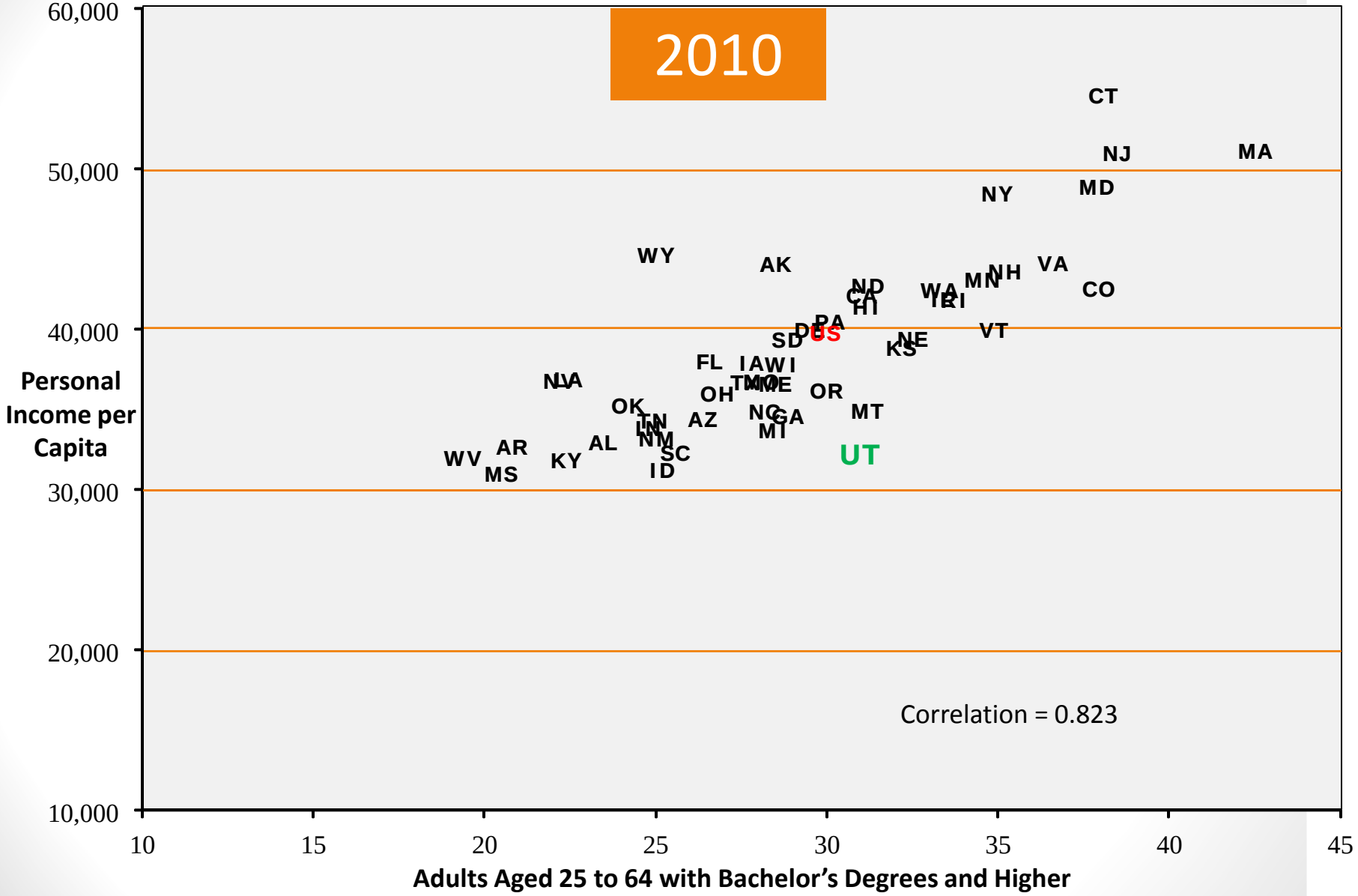
Educational Attainment and Personal Income



Educational Attainment and Personal Income



Educational Attainment and Personal Income



Educational Attainment and Personal Income

- This increasingly strong correlation makes it clear that for a state to prosper, a significant share of its population must attain post-secondary education.

Utah Women and Education Initiative (UWEI)

- Established Office of the Initiative
  - 1 Director, Mary Ann Holladay (25 hrs./week)
  - 1 Coordinator, Victoria Thompson (29 hrs./week)
  - 1 Administrative Assistant, Betty Maestas (29 hrs./week)
  - 1 Senior Advisor, Dr. Susan R. Madsen
- Located in the Board of Regents Building

TICE Project Highlights

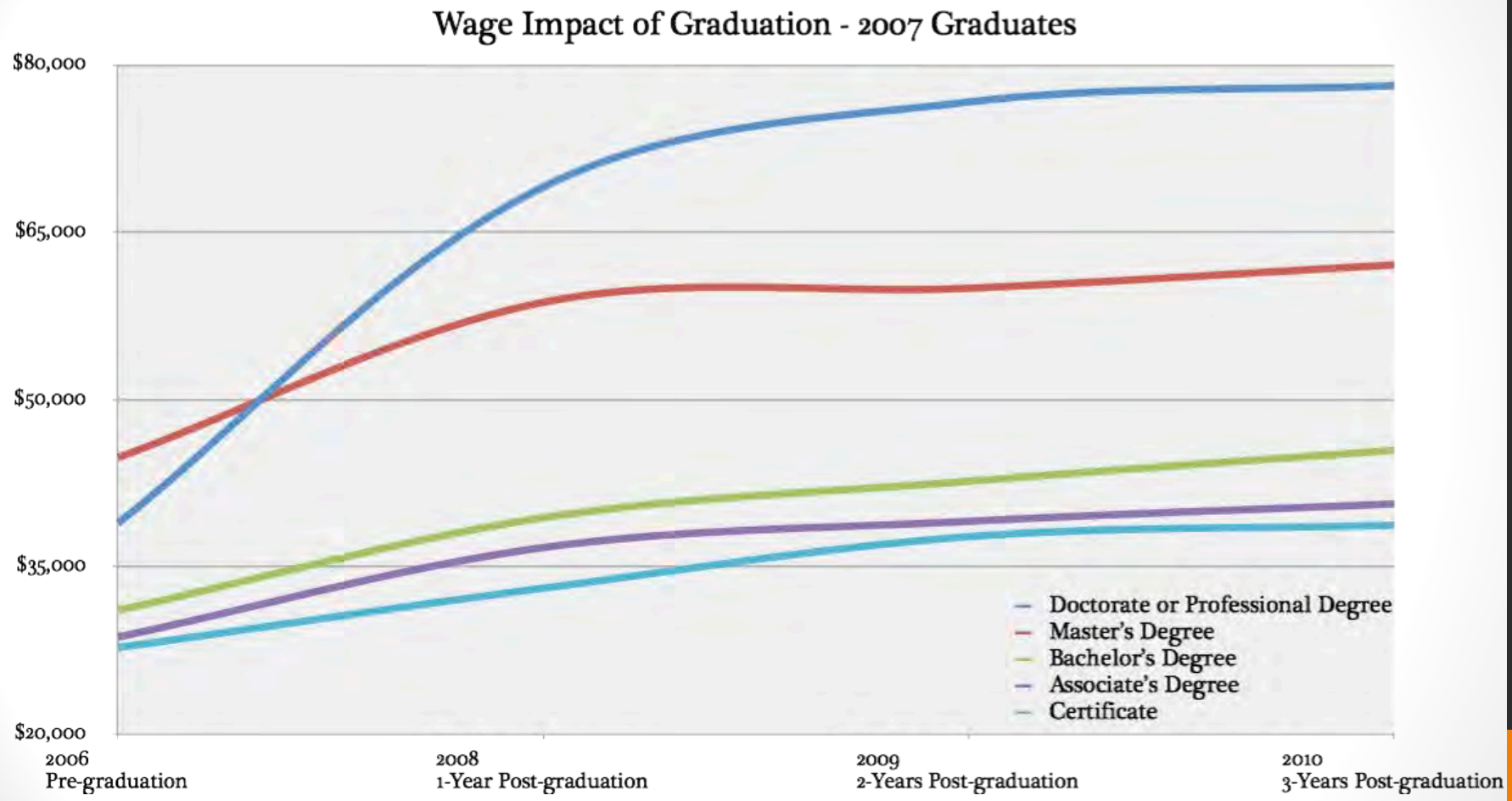
- 20 sections of TICE courses scheduled for Fall 2012
- Teams are meeting with teachers to train them on how to teach the courses as hybrid courses
- Loretta Palmer joined the TICE project to assist with USHE coordination
- Proposals for development of new TICE courses (Gen Ed and CTE) now under review

Utah Data Alliance

- Stage 1 of 4 will be made available to UDA partners by the beginning of August
- Preliminary data matching has allowed UDA to look at limited research questions

UTAH DATA ALLIANCE

UDA Possibilities



UTAH EDUCATIONAL SAVINGS PLAN

Utah Educational Savings Plan Receives "5-Cap Rating" for both Utah and non-Utah resident college savers by Savingforcollege.com

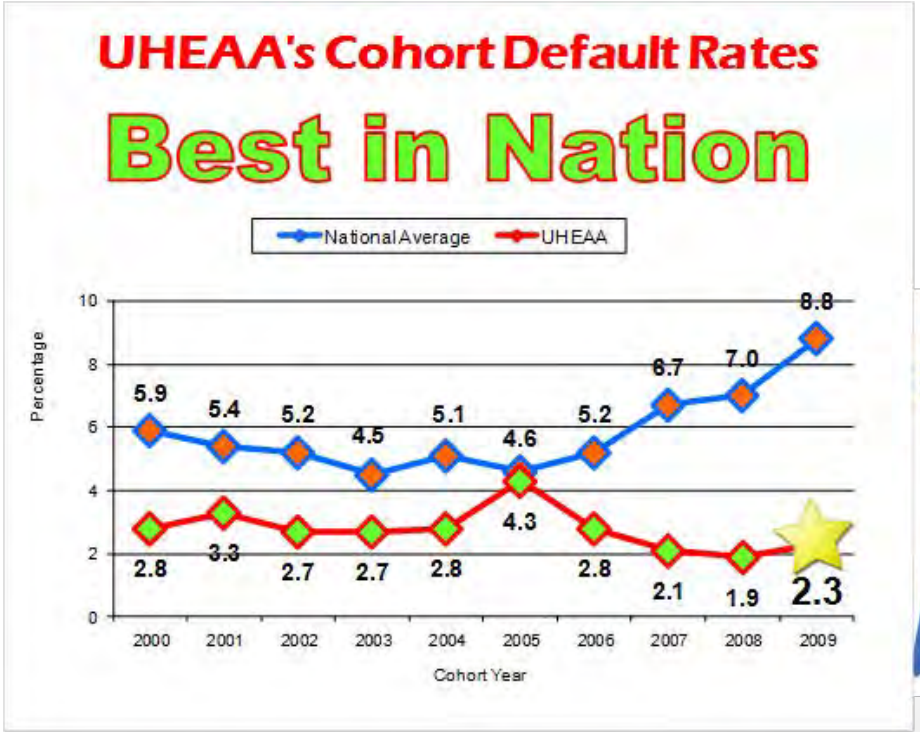
Savingforcollege.com's 5-Cap Rating system—one cap being least attractive and five caps being most attractive—evaluates more than 100 of the nation's 529 plans. Programs awarded five caps are recognized as offering outstanding flexibility, attractive investments, and additional economic benefits (such as state tax benefits) that provide a substantial boost to an account owner's savings. Savingforcollege.com is an independent website informing families and financial advisers about 529 plans.

- More than **202,000** accounts
- **$4.6 billion** in assets under management

UTAH HIGHER EDUCATION ASSISTANCE AUTHORITY

Default Prevention Pilot Program

- Utilize UHEAA's default prevention unit to lower default rates on Direct Loans
- Dixie State College under contract
- Other institutions in contract negotiations



Highlights for Today

- Tom Anderson Resolution of Appreciation
- SUU Campus Master Plan Approval
- Engineering and Computer Science Initiative
- President Benson - State of the University

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

UTAH SYSTEM OF HIGHER EDUCATION

Building a Stronger State of Minds

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University - Technology Strategy

Issue

With the growing expectation that technology will play an increasingly important role in the academic and administrative work of the Utah System of Higher Education (USHE) institutions, the question has been raised as to what the technology strategy is for each institution.

Background

At an earlier meeting of the Board of Regents, the assignment was given to each of the USHE member institutions to present their technology strategy to the Regents. This presentation continues the response to that charge.

For USHE institutions this will be an iterative process given the dynamic nature of higher education and technology. Representatives from Utah State University will be in attendance to present their plan.

Commissioner's Recommendation

The Commissioner recommends that the Regents approve the Technology Strategy Plan for Utah State University.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/EMD

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: USHE – Institutional Non-state Funded Capital Development Projects and Land Bank Requests for 2013-14

Background

In addition to the state funded projects reviewed and recommended by the Regents for funding each year, the Regents also deliberate capital development needs in two other categories:

- Projects to be built entirely with non-state appropriated funds – These are projects proposed to be built using a variety of non-state appropriated funds, including private donations, revenue bonds, federal funds, et al that need Regents' and Legislative approval in order to be built. Those projects to be financed with revenue bonds also require Regents' authorization to seek approval from the legislature to issue the bonds. In some cases, because the facilities will house approved role and mission programs and activities, the projects are eligible under Board policy for state appropriated funding for all or part of the resulting ongoing operating and maintenance (O&M) cost needs. A request for these O&M funds also requires, as stipulated in policy, Regents' recommendation to Legislature for consideration.
- Land bank purchases for future expansion – These proposals, if authorized by the Regents are, submitted to the legislature for funding consideration.

The non-state funded projects that have been submitted for consideration by the Regents for approval in the 2013 legislative session are summarized in the attachments. Those projects that also need legislative authorization for bonding and future state-funded O&M are identified in the following list:

- University of Utah:
  - Kennecott Building – Renovation and Addition Phase II — O&M
  - Utility Distribution Infrastructure Replacement Phase II — Bonding **
  - Basketball Training Center (HPER Addition) — Bonding
- Utah State University:
  - Science and Technology Classroom Building (Tooele Campus) — O&M
  - Blanding Recreational Building (San Juan Campus)
  - Aggie Life and Wellness Center — Bonding

- Bingham Entrepreneurship & Energy Research Center (BEERC) Addition and Renovation (Vernal, UT)

- Weber State University
  - Social Sciences Building Renovation O&M

- Southern Utah University
  - Center for the Arts

- Utah Valley University
  - Provo Culinary/Classroom Building O&M
  - Wee Care Facility

** (*in this unique case, a request for State appropriations also becomes part of the USHE 2013-14 Operating Budget Request as a necessary revenue source for the bond payments*)

The following institutions have Land Bank Requests that are also summarized in the attachments:

- Southern Utah University
- Dixie State College
- Utah Valley University

Commissioner's Recommendation

It is the Commissioner's recommendation that the Regents review these requested project and land bank requests carefully and recommend for legislative authorization those deemed to be appropriate. Particular attention should be given to those also requesting bonding and state-funded O&M.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

UNIVERSITY OF UTAH – KENNECOTT BUILDING RENOVATION & ADDITION PHASE II:

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$11.05 M	40,075	$228,800	Donor & Other Institutional Funds

Work on Phase I of this legislatively approved project is underway. When this work is completed in the fall of 2013, the entire south wing (31,342 sq. ft.) will have been completely renovated to modern seismic and performance standards, including the addition of high-efficiency heating & cooling systems and high-performance glazing, with an expected energy performance of 38% better than that required by current codes. In addition to extensive improvements to the south wing areas, a new attached stair tower and elevator will provide needed ADA access and a new chiller and boiler plant in the high bay area will support the newly remodeled spaces as well as the anticipated improvements in future phases.

With the anticipated completion of Phase I and identification of the Phase II funding, the University desires to move forward on the next phase as quickly as possible to accommodate the growth of programs in the College of Engineering. Occupants currently housed in the connecting wing and basement of the north tower will move into the renovated spaces in the south wing, at which time renovation can begin on these vacated areas. Department and faculty offices, student meeting and advising spaces, computer lab, and a second stair and elevator will be added, along with a large classroom on the 3rd level, above the department offices to be located on the 2nd level. The anticipated construction time is approximately 18 months with expected occupancy by Fall Semester of 2015. With the completion Phase II, the entire existing Kennecott Building (with the exception of some work in the high bay area) will have been seismically retrofitted and updated into a useful and energy-efficient facility that will serve its occupants for decades to come.

The College of Engineering has an acute need for facilities to house their growing student and research programs. This past spring, the legislature appropriated additional funding to increase engineering graduates in the State of Utah. The University of Utah's College of Engineering will be receiving a significant portion of these important funds. Expediting this phase of the Kennecott seismic upgrade is now even more critical in order to house the anticipated program growth that will come with this infusion of new funding.

Funding from private donors and other institutional funds have been identified for the capital needs of this phase. The prospect of moving forward immediately upon completion of the current project will mean both cost savings and expedited access to the needed space to accommodate the anticipated growth in the near term. State-appropriated funds are the existing source of O&M support for this building, and an additional $229,800 of state-appropriated O&M funding is requested for the upgraded and additional space in this core mission facility.

UNIVERSITY OF UTAH – UTILITY DISTRIBUTION INFRASTRUCTURE REPLACEMENT PHASE II:

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$64.0 M	N/A	$3.9 M	Revenue bond defeased with 30% surcharge on power rate bills

$35 million of the University's $99 million need for replacement of failing utility distribution infrastructure was funded by the 2012 Legislature. The University is requesting authorization to issue a $64 million revenue bond for the balance of the need. The bond is to be defeased with revenue from a 30% power bill rate increase to University entities. This surcharge would bring the cost up to the level typically paid by other commercial and institutional power users (Schedule 6).

The surcharge is estimated to yield $6 million annually, with $2.1 million coming from auxiliaries' usage. The remaining $3.9 million, for which the University is requesting increased funding for their fuel and power account in their operating budget, would come from those purposes eligible for state funding.

UNIVERSITY OF UTAH – BASKETBALL TRAINING CENTER (HPER ADDITION)

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$23.6 M	70,500	0	Bonding defeased by Donations & University Funds

The University's existing basketball training program is housed in portions of the Health, Physical Education & Recreation (HPER) Complex and the Jon M. Huntsman Center. The HPER Complex includes two separate gymnasiums flanked by an entry vestibule. The proposed Basketball Training Center project includes remodeling of the existing gymnasiums and adjoining spaces located within HPER West. The addition will fill the area between the gymnasiums. The proposed facility will include new gym floors with greater flexibility for practices and individual workouts. It will also include new offices, a weight room, training rooms, and coaches' lockers to provide greater accessibility to specific needs.

The HPER West Building is a logical location for this program due to its proximity to the Huntsman Center, its orientation to the rest of campus and the existing configuration of the building. The proposed reuse of the existing gymnasiums as the new practice floors means that roughly one-third of the proposed project area will not require new construction, aiding in the efficiency of the proposed facility. The remainder of the program would be consolidated into the space between the two gyms, and would be built vertically, so as to provide minimal impact to the existing facility.

This project will create a close proximity to all of the related needs of the program making basketball operations more efficient for the teams and giving the University an opportunity to enhance the status of the

University of Utah Men's and Women's Basketball Programs. It will unify the Ute Basketball training efforts and integrate the program's needs with a flexible facility designed for a variety of functions that will give the University of Utah Basketball teams a opportunity to create a successful program. For successful division one athletic programs, the recruitment of student athletes is highly competitive. A modern basketball training center is an essential tool, which the University lacks, for drawing and maintaining student athletes.

Capital funding for this project will be provided from bonding defeased by private donations and other institutional funds. Ongoing O&M support will be provided by donations and athletics program revenues.

UTAH STATE UNIVERSITY – SCIENCE & TECHNOLOGY CLASSROOM BLDG (TOOELE CAMPUS):

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$8.0M	28,000	$238,400	Private donations and institutional RCDE funds

Utah State University, Tooele has recently acquired 54 acres of undeveloped land south of its existing facilities and has completed a 50 year comprehensive master plan for expansion of this campus onto the new property. This project will be the first building on the new property, and will provide much needed classroom space for the expanding campus. The majority of the new building will consist of instructional classrooms with state-of-the-art distance learning capabilities as well as new teaching and research laboratories including:

- 1 auditorium (125 students)
- 6 large IVC origination classrooms
- 4 mid-size IVC origination classrooms
- 4 small IVC origination classrooms
- 3 class laboratories for Biology, Chemistry, and Physics
- 2 research labs for Biology
- 1 research lab for Chemistry
- 1 research lab for Computer Networking and Engineering Design

It will also include study and lounge space for students, and administrative offices for faculty and staff needed to implement these programs.

The new space will accommodate current and anticipated growth in enrollment and programs. New programs to be implemented within the next 8 years include Applied Sciences, Registered Nursing, Industrial Hygiene, Construction Management, Forensic Anthropology, Criminal Justice, and Environmental Sustainability, among others.

This project will include an extension of the road and utilities on Tooele Boulevard to the north portion of the new property. Tooele Boulevard currently terminates directly to the north of the new property.

Capital funding for the facility will be provided from private donations and institutional Regional Campuses and Distance Education (RCDE) funds. $238,400 of state-appropriated O&M funding is requested for this core instructional facility.

UTAH STATE UNIVERSITY – BLANDING RECREATIONAL BUILDING (SAN JUAN CAMPUS):

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$900,000	7,000	0	USU Eastern student fees

The USU Eastern San Juan campus is located in Blanding, Utah, a remote area in the southeast portion of the state. The campus has become an important location to serve that portion of the state, as well as other remote areas in the Four Corners region. Current on-campus housing consists of 72 beds in traditional-style housing and is fully occupied. The project proposes to add a new recreational facility on campus. The project construction type will be a metal pre-fab building with a concrete slab floor and will include a full size basketball court with multiple configurations and restrooms. The playing surface will likely be a rubber recreational floor. Mechanical systems will be comprised of unit heaters and ventilation.

Most of the students live on campus and there are no indoor recreational opportunities available close to campus. Students have expressed a desire to use funding from their student fees to construct this indoor court for recreational activities in the winter. This large indoor space will also be used for other student gatherings and events. The site for the new facility will be south of the existing Quad and new Residence Hall. It will be adjacent to the outdoor volleyball court and outdoor pavilion.

Ongoing O&M funding for the facility will be provided from student fee revenue.

UTAH STATE UNIVERSITY – AGGIE LIFE & WELLNESS CENTER:

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$30.0 M	100,000	0	Private Donations and Bonding defeased by student fee income

The proposed Aggie Life and Wellness Center will be a modern signature building that presents a vibrant, active image of the Logan campus community and at the same time will fit into the context of the greater USU campus. The building will provide an important anchor to the west entrance of the University, and will be in optimal adjacency to other student services and recreational facilities. The Center will incorporate the basic design element of flexibility to adapt to shifting programmatic and user requirements. Functional elements of the project will include:

- Fitness center with locker rooms, group fitness rooms, an indoor running/jogging/walking track, a climbing center, and cardio/weight rooms;
- Three full-size basketball/volleyball courts;
- Leisure pool, dedicated lap pool, and hot tub;
- Multi-activity court that can also serve as a venue for lectures, convocations, entertainment, and after-hours student activities programming;
- Health-themed café, study lounges, and multi-media meeting rooms;
- Outdoor Recreation Program;
- Student Health and Wellness Center; and
- Campus Recreation offices with sufficient support and storage space.

There are many existing program offerings that will be greatly enhanced and many new ones added in the new facility. At present, there is no climbing wall facility on the USU campus and adding one in the proposed facility will attract hundreds of students per week to the Outdoor Recreation Program. Secondly, it is estimated that about twice as many students (4,262 currently) will participate in the Intramural Program as a result of increased offerings in basketball, volleyball, dodge ball, and indoor soccer. Third, the fitness program currently serves about 825 students per year and it is estimated that with additional multi-purpose rooms in the proposed facility, the offerings will attract an additional 1100 students per year in fitness classes such as Zumba Dance, yoga, aerobics and mixed martial arts. Fourth, there are very limited leisure and recreational opportunities that exist in the current swimming pools. When the pools were constructed over 35 years ago, they were designed mainly for swimming laps and diving. With new aquatics facilities, many new opportunities for informal recreational use of specially designed pools will be possible including water basketball, volleyball, kayaking, aerobics and socializing. Only aerobics is possible in the existing facility. Lastly, thousands of students use the existing HPER and Field House each year in non-structured, self-directed activities such as weight-lifting, pick-up basketball, jogging, dance, etc. About 50% of the time, these facilities are reserved for credit classes, athletics, and other special programs. The new facility would have expanded hours, modern design, a single entry point and many more opportunities for thousands of additional students to engage in self-directed activities.

The non-academic programs and support operations that are housed in the Health, Physical Education and Recreation Building (HPER) and the Nelson Field House have been operated by the Department of Campus Recreation (Campus Recreation) since 1989. These facilities have served as the primary venues for meeting the recreational needs of students on the Logan campus. Although these facilities have received some improvements over the years, they are inadequate to meet the needs of increased demand for these types of facilities resulting from increased enrollments on the Logan campus. In addition to Campus Recreation, the departments and/or programs of the Athletics Department, the HPER Department, and Employee Health and Wellness rely on HPER and the Field House to meet their needs. This less-than-ideal situation has led to scheduling issues, overcrowding, and an overall reduction in services to students. The existing Student Health and Wellness Center is currently housed just north of Romney Stadium and is not readily accessible to students on campus. The Outdoor Recreation Program is housed in a building directly east of Romney Stadium and is equally inaccessible to students on campus. Upon completion of the Aggie Life and Wellness Center, HPER will revert to serving primarily as an academic building. The Field House will continue to serve the needs of the departments or programs that currently utilize it. The buildings that house the Student Health and Wellness Center and the Outdoor Recreation Program will be re-purposed to address other university needs.

UTAH STATE UNIVERSITY – BINGHAM ENTREPRENEURSHIP & ENERGY RESEARCH CENTER (BEERC) ADDITION & RENOVATION :

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$1.3 M	5,230	0	RCDE Departmental Funds

The BEERC facility in Vernal, UT serves students living in the Uintah Basin and nearby communities who are registered to attend courses offered via traditional style classroom settings or courses offered through broadcast instruction. To accommodate the high number of course offerings in the evenings, it has been necessary to utilize all of the available classrooms, Dean's office conference room, and one of the labs within BEERC. The University also partners with the nearby Uintah Basin Applied Technology College to utilize the open classroom space in their facility.

The requested project will include 4,160 square feet of new space and 1,070 square feet of renovated space and will consist of: 11 small destination classrooms to accommodate 4 – 6 students each; one larger classroom to accommodate 24 students; a small monitor area for a staff member; and an open collaboration study and lounge area. The addition and renovation are proposed at a cost of approximately $1,300,000. The project will be funded through Regional Campuses and Distance Education departmental funds. Operation and maintenance funds for the additional space will not be requested from the State.

WEBER STATE UNIVERSITY – SOCIAL SCIENCES BUILDING RENOVATION:

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$22.93 M	119,322	$379,475	Donations

The Social Sciences Building was designed in 1969 and finished construction in 1973. Classes were first offered in the Fall of 1973. For over 30 years, the Social Sciences Building was the largest and most heavily used classroom building on the Ogden Campus of Weber State University. It currently houses the Departments of History, Anthropology, Criminal Justice, Geography, Political Science and Philosophy, Psychology, Social Work and Sociology. With all of these departments, the building continues to be one of the most heavily used academic instruction buildings on the campus, and is used from 7 AM in the morning until after 10 PM in the evenings for academic instruction.

The building was built approximately 40 years ago and does not comply with current seismic standards nor comply with ADA requirements. A recent structural analysis revealed that additional seismic reinforcing, including added shear walls and bracing of the floor connections to supporting columns is required to meet seismic standards. The exterior façade concrete panels need improved mounting tabs to survive and remain adhered during a seismic event. The interior of the building is a difficult maze of corridors and

passageways without a coherent pattern or scheme. A common complaint is that visitors and first time students cannot find their classroom or faculty office within the building because of the layout of interior partitions.

Because of its age, the building heating, ventilating and air conditioning (HVAC) system is outdated, inefficient and maintenance intensive. The culinary water supply system in the building is rusty and provides brown water in many places. Lavatories are difficult to maintain because of poor plumbing and inadequate or corroded drain systems. The electrical system does not meet the demands placed upon it due to the much more intensive use of computer and multimedia technology for instructional purposes. The building envelope is drafty and has voids that allow insects to infest the building during various seasons.

The project will consist of essentially gutting the interior, including all interior partitions, electrical, heating and air conditioning systems and plumbing systems. Basic structural elements will be strengthened to meet seismic code requirements, and the interior will be reconfigured and rebuilt to accommodate the most effective and efficient use of space and systems to meet the current and projected academic requirements. This includes multi-media classrooms of sufficient size and configuration. Faculty offices will be reconfigured and interior circulation and restrooms will be upgraded. Appropriate study rooms, faculty preparation rooms and work rooms will be incorporated. Interior finishes will be upgraded or improved, to include lighting, floor coverings, wall coverings, and ceilings. Exterior wall panels will be cleaned, and mounting systems for these panels will be upgraded to meet seismic requirements. Where appropriate and feasible, additional daylight will be incorporated into the design to make the facility less energy intensive and more user-friendly. Additionally, approximately 13,000 square feet of "porch" area around the perimeter of the first floor will be incorporated into office, classroom, study and lab spaces.

The capital needs of the renovation and expansion will be met primarily with proceeds obtained from donations to the University's Capital Campaign. This will be augmented with limited capital improvement funds to address some of the more egregious mechanical, electrical and plumbing deficiencies. The University will also use some institutional funding to complete the funding requirements of this renewal and renovation project.

This is a very high-use academic facility that typically would be a state-funded project request but the critical need to renovate this facility does not allow the University the time that would be necessary to program and obtain state legislature supported funding for this project and also obtain state funding for other very important and critical projects that support the growth and academic program changes that are occurring at Weber State University. The University's decision to seek donated funds to renovate and expand this facility recognizes that sufficient state funds are not available to address all of the state capital facilities needs of USHE and the state.

State-appropriated O&M support is used for the existing building, which was constructed with state appropriated capital funding. $375,475 of additional state funding is requested for O&M needs to accommodate the ongoing costs for the increased space and updated HVAC and electrical needs of the facility.

SOUTHERN UTAH UNIVERSITY – CENTER FOR THE ARTS:

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$30.0 M	80,490	0	Private Donations, Cedar City RDA Gift, Iron County Bond, Previous State Funding

This request combines two previously approved facilities into a single project. The Shakespeare Theater project was authorized several years ago to replace the Adams outdoor theater that was built in 1971. The Southern Utah Museum of Art (SUMA) project was approved by the Regents and authorized for construction by the 2010 legislature. This project will create a Center for the Arts by connecting SUMA and a new outdoor Shakespeare Theater with a common lobby, café, restrooms, and mechanical space. It also will include an Artistic/Production building nearby. The programming and design documents that have been completed on the Theatre and SUMA as standalone projects will provide the architect with valuable information and details which will accelerate the design phase for the Center for the Arts.

The current Adams Theater, which has been an extremely important feature of the Utah Shakespeare Festival's development, has become extremely outdated and limits the Theater's future growth. It is reaching the end of its useful life, and will be razed to make room for future development of the Campus.

SUU's fine arts collections are currently displayed in the small basement of the R.C. Braithwaite Building. The University is committed to increasing gallery space to accommodate works of art the university currently owns, plus a recent donation of fine art with a value estimated to be $5M dollars. There is no space available in the Braithwaite Building for gallery expansion, art storage, and curator work. A new Fine Arts Museum with adequate display space will allow for more art to be on permanent display and will bring more exhibits to campus from other galleries. The permanent displays will enhance the opportunity for a more diverse group to benefit from artwork that would otherwise not be on display. SUU is committed to establish its Arts Administration program to provide a professional art museum operated by graduate students. This will provide students with hands-on experience running a world-class fine arts museum as part of their college career.

The $30 million of funding for the project will be provided as follows:

Private Donations	$24,000,000
Cedar City RDA Gift	2,000,000
Iron County Bond	3,000,000
Previous State Funding	1,000,000
Total	$30,000,000

The $1 million of previous state funding is the balance of $1.5 million provided for Shakespeare Theater of which $500,000 was used to purchase the property. No state funding will be requested for ongoing O&M support.

UTAH VALLEY UNIVERSITY – PROVO CULINARY/CLASSROOM BUILDING:

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$3.0 M	11,200	$90,720	Utah County Municipal Bond and lease purchase agreement

Utah Valley University is proposing development of a Provo Center which demonstrates the University's commitment to providing educational opportunities to its constituencies in that area. The University has evaluated many different opportunities in downtown Provo to establish a culinary arts internship restaurant and interactive class facility. Utah County owns a 70 x 40 lot contiguous to the new Utah County Convention Center in the heart of downtown Provo that would serve as an ideal location for a UVU Provo Center.

The Provo Center project proposal is to construct a four story building on the lot owned by Utah County. This facility would have a footprint of approximately 2,800 square feet on each floor for a total of 11,200 square feet plus a terrace. Floor one would consist of a 50-80 seat internship restaurant with a viewable kitchen to enable the patrons to watch meal preparation. The first floor would also consist of a "To-go"/bakery concept with patio tables for a more casual atmosphere. Floor two will include a production kitchen and a culinary teaching facility. Floors three and four will include four 40-seat interactive classrooms, a computer lab, three offices, and a workroom.

Financing for the Provo Center facility would be provided is through the Utah County Municipal Building Authority as a conduit bond to Utah Valley University. This bond would consist of Utah County bonding for $3 million for the construction of the facility. The county and UVU would then enter into a lease/purchase agreement with the debt service being approximately $270,000 per year. This lease payment of $270,000 would be made from the institutional contingency account.

UTAH VALLEY UNIVERSITY – WEE CARE FACILITY:

Total Cost Estimate	Gross Sq Feet	State Funded O&M	Source of Funding
$2.2 M	12,000	$0	Donated Funds

UVU is requesting authorization to build a new child care facility (Wee Care Facility). The university currently has a child care facility serving approximately 60 students which is housed in a converted home. The proposed new facility will have 12,000 square feet at a cost of $2.2 million and will increase the amount of child care services on campus to provide for approximately 200 students, which will address only about 10% of the demand on campus. The majority of the students who will use the facility are low-income single parents for who childcare has been a major roadblock in their pursuit of higher education.

Child care is a standard service on campuses nation-wide. Most Wee Care Center clientele would not be able to attend school if these services were not available. In addition, the Wee Care Center provides training and engaged learning opportunities for students. There are currently 20 paid Wee Care teachers

who are currently enrolled in the UVU Elementary Education Program, and 3 to 4 Wee Care employees generally graduate from UVU each year and go on to teach in elementary schools. In addition, 6 to 8 students from the Education Department use the Wee Care Center as an observation laboratory as part of their training.

The new facility will be state-of-the art and will provide an affordable, highly accessible and flexible child care solution. It will be located directly behind the current Wee Care facility on a small half-acre parcel on Wolverine Way. This location will provide maximum accessibility for student parents while minimizing the impact on the neighborhood.

The $2.2 million cost of the project will be financed with donated funds, and the estimated $72,000 of ongoing O&M support will be provided from user-fee revenue generated by the facility.

UTAH SYSTEM OF HIGHER EDUCATION
Building a Stronger State of Minds™

State Board of Regents
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Phone 801.321.7101
Fax 801.321.7199
TDD 801.321.7130
www.higheredutah.org

September 5, 2012

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Capital Facilities Prioritization and Approval

Background

During August, the Regents Capital Facilities Committee, comprised of Regents Marquardt, Clyde, Snow and Stoddard, and accompanied by Associate Commissioner Greg Stauffer, spent two days touring campuses to become well acquainted with all proposed projects. Institutional presentations of their 2013-14 State-Funded Capital Facilities project requests will be completed on Thursday, September 13, 2012. The Regents Capital Facilities Committee will then meet Thursday to prioritize the project requests and will be prepared to make their recommendations on Friday, September 14, 2012 regarding prioritization to the Committee of the Whole.

Issue

Board of Regents prioritization of capital facilities requests is a core Regental responsibility and a necessary step in the process of the Utah System of Higher Education providing a prioritized list of the most pressing and critical project requests to DFCM and the State Building Board, the Governor's Office, and the Legislature for funding consideration.

Commissioner's Recommendation

Following presentation and discussion, the Commissioner recommends approval of the FY 2014 Prioritized State Funded Capital Facilities list.

David L. Buhler
Commissioner of Higher Education

DLB/GLS