This is a living document. It will remain in “draft” form until it has been formally approved by the State Board of Regents as “HigherEdUtah2020.”

The purpose of this draft is to enlist input, feedback, and support from the higher education community and its stakeholders to help shape the future of higher education in Utah. The feedback will be reflected in future drafts of this document.

The overarching purpose of this document is to serve as a compass to the State Board of Regents as well as to the higher education community and stakeholders in their implementation of strategies that will help ensure the future prosperity of Utah.
Utah, a state of promise and opportunity, stands at a juncture along the path of the future of education for the state. From this vantage point, we can see the diverging paths that lie before us. One is a challenging climb that will test our collective resolve. The other may appear at first to maintain even ground, but will, in a short time, lead us on a downhill course that affects our people and our way of life. With collective will and resolve, we can choose and successfully navigate the high road.

Recognizing the seriousness of the challenge before us, Governor Gary R. Herbert called upon the Utah State Board of Regents and the Commissioner of Higher Education to present a plan for how Utah’s colleges and universities will meet the needs of students and the talent demands of employers in the 21st century. The purpose of this document is to answer the Governor’s call and unify the state in its need to increase the level of educational attainment of its citizens—from a high school diploma to an employable certificate, from a certificate to an associate’s degree, from an associate’s degree to a bachelor’s degree, from a bachelor’s degree to a master’s degree and so forth—to better ensure that Utahns can prosper in the knowledge-based economy of the 21st century.
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EXECUTIVE SUMMARY

CASE STATEMENT - Purpose

Analysis of Utah’s economic outlook reveals two megatrends at the intersection of education and economics:

1) In the last two decades, Utah has lost the advantage it once held of being among the most highly-educated states in the nation (as gauged by the number of adults ages 25 to 64 with an associate’s degree or higher). At the same time, the U.S. has fallen from being 1st in the world for educational attainment to 10th, while almost all other developed nations are increasing their attainment rates.

2) The emergence of the knowledge-based economy is transforming economies around the world, including our own. The demand for more, better-trained and educated employees has skyrocketed and will continue to grow. According to the Georgetown University Center on Education and the Workforce, 66% of all jobs in Utah by 2018 will require postsecondary education. Those without postsecondary education will fall out of the middle class; no longer can a high school degree produce a comfortable living.

Utah’s Big Goal

To meet Utah’s education and workforce needs, the Board of Regents and Commissioner of Higher Education have set a “big goal” for Utah: to have 66% of Utahns—men and women age 25 to 64—with a postsecondary degree or certificate by the year 2020; specifically, to have 55% of Utah’s workforce with an associate’s degree or higher and 11% with a postsecondary certificate that leads to a livable wage.

To reach this goal within the next ten years, the state of Utah must take aggressive action. Utah System of Higher Education (USHE) institutions, along with other Utah public and private partners in higher education, will need to enroll approximately 109,000 more students (based on 2009 participation and completion rates). Of these, about 33,000 are “expected growth” over this period. This means that Utah will need to enroll an additional 76,000 students beyond the current enrollment and projected natural growth.

Simply put, capacity must increase. USHE institutions currently enroll about 165,000 students and estimate the ability to increase their collective capacity to accommodate 49,000 more students given traditional growth of resources and no additional budget cuts. Based on USHE calculations, this will leave the state about 60,000 students short of the 109,000 additional student target. Private institutions report zero to moderate increases in capacity to help accommodate the 109,000 more students; thus, the bulk of the demand for meeting Utah’s “big goal” will need to be met by USHE institutions.

The increase in capacity among USHE institutions can be achieved by a) improving the management of the student pipeline, including training additional faculty and staff to teach and support more students; b) increasing efficiencies—increased use of facilities to accommodate more evening, weekend, and online programs and improved the rates of participation and completion; and c) expanding technological capabilities and physical facilities. All of these solutions will require a significant investment in higher education, an investment that is synonymous with economic development.
Strategic Priorities

To achieve Utah’s “big goal,” the state must address three strategic priorities:

1) Increase the rate of student participation in higher education (postsecondary education programs). This includes enrolling more and better-prepared students in college directly from high school. It also means increasing the participation rate of returning adult learners from across all regions of the state. Current statistics point to sectors where targeted efforts to increase the number of graduates can make a difference:

- In 2008, Utah’s high school graduation rate was 88%. Of those graduates, 44% went to college within one year of high school graduation (36% of the state’s 19 year-old population.) Furthermore, of those high school students who took the ACT test in 2009, only 24% met the college readiness benchmark in all four areas of the test (English, math, reading, and science).

- In 2008, close to 370,000 Utahns (nearly 28% of the adult population) had completed some college without earning a degree. If only a small portion of this group were to return to college to complete either a two- or four-year degree, the impact would be significant.

2) Increase the rate of student completion in their chosen field of study or training. Currently, only 49% of Utah’s first-time, full-time, freshmen complete a bachelor’s degree within six years of starting their program of study. To improve the rate of student completion, we will need to address issues of student retention, time to completion, and affordability.

3) Increase the level of economic innovation. To provide meaningful employment opportunities for graduates and to strengthen the knowledge-based economy in Utah, we need to align education to meet future talent-force needs and establish a climate where partnerships between government, education, and industry flourish.

ACTION PLAN

The State Board of Regents and Commissioner of Higher Education propose a five-point Action Plan that incorporates the three strategic priorities into five focus areas:

1. Expand the pipeline of college/career-ready and college-inclined high school graduates.
2. Stop leakages in the higher education pipeline by increasing the number who persist and complete their education once they enter college.
3. Expand the ability of colleges and universities to provide quality opportunities for more students.
4. Transform the way higher education meets the needs of the 21st-century student through efficiencies and technology.
5. Better leverage higher education in growing Utah’s economy as a way to extend prosperity and grow the tax base of the state.

Conclusion

Successful implementation of the recommendations from the action plan will require the combined efforts of the State Board of Regents, the USHE institutions and Boards of Trustees, Utah’s private higher education community, the State Board of Education and K-12 school districts, the Governor and Utah Legislature, and the support of Utah’s business community, other community leaders, and the general public.

Higher education in Utah is a great investment. According to the University of Utah, every public dollar invested in higher education yields a $7 return into Utah’s economy. Not only are these returns felt in the education sector of the state, which is a $4.8 billion industry itself, but in increased tax revenues, in growth of business and industry, and in the quality of life for Utah’s people. Today’s investment in education will yield prosperous rewards with a vibrant economy for Utah tomorrow.
CASE STATEMENT OVERVIEW: EDUCATION’S BIG QUESTIONS

Where Will the Jobs Be in 2020?

Most of Utah’s jobs will be in occupations that require education beyond high school. According to the Georgetown University Center on Education and the Workforce, 66% of all jobs in Utah by 2018 will require postsecondary education. Indeed, the jobs requiring a postsecondary credential or degree will grow at over twice the rate of those requiring only a high school diploma.

The Georgetown University report projects that by 2018, Utah will have:

- **172,000 jobs** in managerial and professional office occupations, 142,000 or 82% of which will require a postsecondary degree or certificate.
- **101,000 jobs** in science, technology, engineering and mathematics (STEM) occupations, 92,000 or 91% of which will require a postsecondary degree or certificate.
- **112,000 jobs** in health care (both practitioners and support), 95,000 or 85% of which will require a postsecondary degree or certificate.
- **99,000 jobs** in education, 92,000 or 93% of which will require a postsecondary degree or certificate.

The demands are real and significant. In total, over 1,000,000 of the jobs in Utah will require some level of college education. (At least 202,000 of these will be new jobs.)

In fact, Utah ranks eighth in the U.S. for the highest proportion of jobs that will require postsecondary education. Utah must embrace the opportunity of an economy that demands college preparation and produce a talent-force prepared for 21st century.

A “talent-force” consists of able people prepared to succeed in the 21st century’s dynamic knowledge-based economy. That requires the know-how to perform essential functions, the ability to adapt to an ever-changing work environment, and the skill to think critically and communicate effectively, in writing, in speech, and through technology.

These skills are typically developed and refined through a liberal arts college experience.
How Will Utah Prepare?

To succeed as a state, the Utah State Board of Regents and Commissioner of Higher Education, William A. Sederburg, have set a clear goal—ambitious but attainable:

To have 66% of Utahns—men and women age 25 to 64—with a postsecondary degree or certificate by the year 2020; specifically, to have 55% of Utah’s workforce with an associate’s degree or higher and 11% with a postsecondary certificate that leads to a livable wage. We will do this while enhancing the quality of our degree programs. This will help ensure Utah’s prosperity by producing the requisite 21st century talent-force.

To achieve this goal, Utah must realize three strategic priorities:

1. Increase the rate of student participation in higher education (postsecondary education programs).
2. Increase the rate of student completion in their chosen field of study or training.
3. Increase the level of economic innovation.

Call to Action

To increase the rates of participation, completion, and economic innovation, Utah’s legislature, business community, and general public must increase their investment in higher education now—nothing will have more impact on local communities and the state’s prosperity. Additionally, Utah’s higher education institutions must repurpose their resources to ensure they are providing a relevant, high quality educational experience in the most efficient and effective way possible. In so doing, Utah will position itself for success by developing the talent-force required by 21st century employers to create competitive businesses and sustainable communities.
How Will Higher Education Answer the Call?

_Utah’s Institutions of Higher Education will answer the call by working together._

The Utah System of Higher Education (USHE) will build upon the diverse strengths of each of its institutions to play a vital role in reaching Utah’s “big goal” for higher education. From its research and regional universities to its state and community colleges, each institution’s mission will be advanced through this service to our state and our local communities. (The role of each USHE institution in meeting Utah’s goal is described in a later section.) Additionally, USHE’s partners in higher education, which include the Utah College of Applied Technology and all other private institutions, both for profit and not-for-profit, will join with the USHE institutions in helping the state of Utah attain its big goal.
RECOGNIZING THE CHALLENGE

The relationship between higher education and economic prosperity has increased in our generation and will continue to increase in the future. The technology of the 21st century knowledge-based economy has steadily eliminated jobs of past generations—jobs filled by middle-income workers with only a high school diploma or less. At the same time, the demand for more, better-trained and educated employees has skyrocketed. Globalization has also increased the need for Utah to differentiate itself with a more highly-educated talent-force than those of emerging economies.

Governor Gary R. Herbert emphasized this issue in his Inaugural Address, explaining: “We cannot have sustainable economic growth—or be competitive in what is now a global marketplace—if we don’t properly educate the rising generation. In the 21st century, our competition isn’t just Idaho, Colorado, or California. It’s India, Canada, Mexico, and China. Today, more than merely gaining a diploma, our students need the skills that will provide a passport to the world.”

Leaders of other states and the nation as a whole concur. From the White House to national organizations like Lumina and the Bill and Melinda Gates foundations, there is a national urgency to ensure that all students have the opportunity to succeed in their education beyond high school and to complete an associate’s degree or higher or a certificate that leads to family-sustaining income.

“Governor Gary R. Herbert

“This is the opportunity for people to develop the skills to succeed in the future. In order for our state to remain competitive we must focus on improving our public education system. A good education is a powerful tool to empower the individual to succeed.”
**Education and the Public Good**

**Economic prosperity** is directly linked to an individual’s level of educational achievement. Higher education has a powerful positive impact on personal earning potential—the greater the level of educational attainment the more likely a person is to earn a higher wage. A high school graduate with no postsecondary education or training hovers on the state’s annual poverty level, which is $27,564 for a family of four, with a median income of $28,322. Contrast this with the median annual income of $31,011 for a person with some college (including an associate’s degree or certificate). More significantly, a person with a bachelor’s degree increases his or her median income by 35% to $41,791 and a person with a graduate degree by 97% to $60,848.

According to the U.S. Department of Labor and the Bureau of Labor Statistics, 56% of the jobs in 2008 that had a minimum median annual income of $32,390 required a postsecondary degree or certificate. And, while 40% of the jobs of the same minimum median annual income required significant on-the-job training, many of these jobs—such as chemical plant and system operator, police officer, or firefighter—also required postsecondary training or certification. Only 4% of the jobs with a $32,390 minimum median annual income or greater allowed for short-term training or no postsecondary education.

**Impact of Degree Attainment on Utah’s Economy**

As an example, the 2007-08 USHE graduating class is estimated to have contributed $650 million dollars to the state’s economy in its first year of employment. 30% of this graduating class is estimated to have continued their education pursuing additional degrees or skills. Thus, as these individuals attain additional credentials, their contribution to the workforce and overall economic impact will become even more significant.
**Employment Stability.** Men and women with higher levels of education are less likely to be laid off and unemployed in tough economic times like Utah and the nation are currently experiencing. In Utah, of those with a bachelor’s degree, only 4.7% were unemployed in 2009 compared to 10.0% of those who are high school graduates and 15.4% of those who did not complete high school. National statistics show similar trends. As illustrated in Figure 2, there is a direct correlation between the level of educational degree attainment and the probability of being unemployed—the more education a person has the less likely he or she is to be unemployed.\(^1\) A more educated workforce is generally a more stable workforce.

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**Economic Growth.** For Utah to flourish—to develop new jobs and raise the general standard of living—a higher percentage of our educated workforce must attain graduate and professional degrees. Advanced degrees are linked with the creation of highly paid jobs. Further, in today’s knowledge-based economy, we need to increase the *asset of knowledge*. This applies to the knowledge gained by workers through education and experience, as well as the knowledge of credentialed faculty and others who will teach them and of accomplished business executives who can mentor young entrepreneurs. We also need high-quality researchers who will extend knowledge on a national and international level, and knowledgeable public administrators and state leaders who can create and sustain an environment where such development thrives. This knowledge base is developed within our research and graduate institutions and programs.

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*Figure 2: Impact of Higher Education on Unemployment Rate*

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<thead>
<tr>
<th>Education Level</th>
<th>Unemployment Rate</th>
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<tr>
<td>Graduate or professional degree</td>
<td>1.4%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>4.7%</td>
</tr>
<tr>
<td>Some college or associate's degree</td>
<td>7.8%</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
<td>10.0%</td>
</tr>
<tr>
<td>Less than high school graduate</td>
<td>15.4%</td>
</tr>
</tbody>
</table>

Source: USHE, Office of Institutional Research and Analysis
The benefits of education, particularly well-focused higher education, include career opportunities, economic stability and a richer, deeper quality of life. Students who attend college obtain a wide range of personal, financial, and other lifelong benefits: likewise, taxpayers and society as a whole derive a multitude of direct and indirect benefits when citizens have access to postsecondary education. The future stability of our democracy, for example, is dependent upon an educated citizenry. Furthermore, there is a positive correlation between higher levels of education and lifelong benefits for men and women of all racial/ethnic groups.13

The Lumina Foundation asserts that social and economic concerns are best addressed by educating many more people beyond high school. As education levels increase, the economy improves, tax revenues rise, civic engagement is strengthened, and the costs of crime, poverty, and health care are diminished; in short, the human condition is dramatically improved.14

A well-educated society is the foundation of a thriving middle class—individuals and families with a comfortable standard of living and significant economic security. The strength of the middle class is significant to the future of the state and nation. The middle class is the largest contributor and, therefore, the foundation of the tax base. The middle class supports public services like education, as well as social services like Medicaid and Social Security. Its growth leads to betterment of all. Its decline could lead to an economic maelstrom with tax revenues spiraling downward as more people fall out of the middle class and increase the population that draws upon social and public services.

Personal and Societal Benefits of Higher Education

- On the average, better-educated people live longer and enjoy healthier lives.
- People with college degrees demonstrate increased participation in civic and community involvement.
- People with higher levels of education tend to get jobs with better healthcare benefits and pensions and to require fewer social services.
- People with college degrees often donate more to local charities and volunteer their time in the community more because they work fewer hours to sustain their households and families.
- A broad educational experience provides the communication skills as well as creative and critical thinking skills necessary to perform in an economy that demands its workers develop habits of lifelong learning.
- Evidence shows that a college education increases one’s sense of life satisfaction or overall happiness.
- Societies that have higher levels of education are safer and have less poverty.

Source: College Board, *Education Pays: The Benefits of Higher Education for Individuals and Society, 2010*

“The non-tangible benefits of receiving a college degree are, at minimum, equivalent to the monetary ones, and they extend from individuals to families and communities.” - Utah Women in Education Task Force
More Jobs Will Require Higher Education

The vast majority of jobs in the future economy will require some level of postsecondary education. The Center on Education and the Workforce at Georgetown University reports that two-thirds of all jobs by 2018 will require a postsecondary degree or certificate. Their analysis also indicates that occupations with high levels of non-repetitive tasks, such as managerial and professional jobs, tend to require postsecondary training and education. These types of jobs are growing while jobs that require repetitive tasks that can be automated, like production jobs, are declining.

Other noteworthy national state research organizations predict the same or similar rise in education requirements of the national workforce, including the Lumina Foundation, The College Board Advocacy and Policy Center, the Bill and Melinda Gates Foundation, the White House, and the Utah Department of Workforce Services.

According to this research, the gap in earnings between those with postsecondary degrees and those without will continue to grow. No longer can a person expect to enter into or remain a part of the middle class with only a high school diploma or less. The Georgetown University report emphasizes this point: “As the economy gets back on track over the next five years, 60 million Americans are at risk of being locked out of the middle class, toiling in predominantly low-wage jobs that require high school diplomas or less.” Without direct intervention and a thoughtful plan for an educated workforce, the middle class and the tax base it represents will decline.

Table 1: Where the Jobs Will Be in 2018, by Occupation and Education

<table>
<thead>
<tr>
<th>Occupational Groups</th>
<th>High School or less</th>
<th>Some College</th>
<th>Associate’s or Higher</th>
<th>Total Jobs</th>
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<tbody>
<tr>
<td>Managerial and Professional Office</td>
<td>34,000</td>
<td>18,000</td>
<td>123,000</td>
<td>172,000</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>8,000</td>
<td>9,000</td>
<td>83,000</td>
<td>101,000</td>
</tr>
<tr>
<td>Community Services and Arts</td>
<td>6,000</td>
<td>5,000</td>
<td>48,000</td>
<td>59,000</td>
</tr>
<tr>
<td>Education</td>
<td>8,000</td>
<td>7,000</td>
<td>85,000</td>
<td>99,000</td>
</tr>
<tr>
<td>Healthcare</td>
<td>16,000</td>
<td>26,000</td>
<td>69,000</td>
<td>112,000</td>
</tr>
<tr>
<td>Food &amp; Personal Services</td>
<td>83,000</td>
<td>14,000</td>
<td>92,000</td>
<td>234,000</td>
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<td>Sales and Office Support</td>
<td>163,000</td>
<td>56,000</td>
<td>265,000</td>
<td>486,000</td>
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<tr>
<td>Blue Collar</td>
<td>229,000</td>
<td>31,000</td>
<td>123,000</td>
<td>488,000</td>
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<tr>
<td>TOTAL</td>
<td>584,000</td>
<td>173,000</td>
<td>890,000</td>
<td>1,647,000</td>
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</table>

Source: The Georgetown University Center on Education and the Workforce, June 2010 (see Appendix for complete table with occupational breakdowns)
Utah Will Require a More Educated Workforce by 2018

According to the Georgetown report, 66% of all jobs in Utah by 2018 will require postsecondary education.

As the figure above illustrates, the Georgetown University report estimates that 55% of jobs in Utah will require an associate’s degree or higher by the year 2018. Another 11% will require some training beyond high school, primarily certificates. (Most of these, however, do not produce a livable wage independent of additional certification or degrees.) Thus, 66%, or two-thirds of jobs will require at least some postsecondary education.

Utah’s goal mirrors the Georgetown University estimates, but adds to it, calling for 55% of its workforce age 25 to 64 to have an associate’s degree or higher and an additional the 11% with a postsecondary certificate that leads to a livable wage by 2020.
Where Are We Now?

The United States no longer leads the world in educational attainment, and Utah is not a leading state in the nation. Despite the importance of higher education, national levels of degree attainment are lagging. According to the National College Board Advocacy and Policy Center, only 39% of Americans age 25–64 have earned an associate’s degree or higher. Over the last generation the U.S. has slid from 1st to 10th in educational attainment of persons having earned an associate’s degree or higher. Of the top ten countries in educational attainment, the U.S. now trails the Russian Federation (54%), Canada (48%), Israel (44%) and Japan (40%). The U.S. is likely to slide even further in the 2010 Census.

Utah has declined from 3rd in the nation for postsecondary attainment in 1960 to 26th in 2008. Currently, Utah’s degree attainment rate is the same as the national average—only 39% with an associate’s degree or higher.

The long-term prosperity of our nation and state are at risk if deliberate actions are not taken. Thus, the National Governors’ Association (NGA) has launched its Complete to Compete initiative challenging states to increase their college completion rates and higher education efficiency. Even more pointedly, the Lumina Foundation (with the support of the Bill and Melinda Gates Foundation and others) has established a goal of increasing the percentage of Americans with high-quality, in-demand degrees and certificates to 60% by the year 2025.

Using these goals as a guideline, the Utah System of Higher Education has determined to partner with the higher and public education communities and stakeholders to raise Utah’s postsecondary degree attainment from 39% to 55% by 2020. To achieve this goal, the state of Utah must act deliberately to improve rates of higher education participation and degree completion in ways that directly build the state’s economy. Utah’s future prosperity depends upon it.
THE PLAN: Utah’s “BIG GOAL”

To meet Utah’s education and workforce needs, the State Board of Regents and Commissioner of Higher Education have set a “big goal” for Utah: to have 66% of Utahns—men and women age 25 to 64—with a postsecondary degree or certificate by the year 2020; specifically, to have 55% of Utah’s workforce with an associate’s degree or higher and 11% with a postsecondary certificate that leads to a livable wage.26

This means that Utah will need to enroll an additional 76,000 students over and above the expected growth of 33,000 students, totaling 109,000 students needing access to Utah’s higher educational network by the year 2020. (Expected growth is based on 2009 rates of participation and completion for both public and private institutions and on projected population changes over the next ten years.) An increase of 109,000 students is about a 67% increase over the total of 164,862 students enrolled in the fall of 2009.27 USHE Institutions recently reported an increase in total headcount enrollments of over 8,000 students (total of 173,016) in fall semester of 2010 compared to the fall 2009 enrollment reports. (Currently, 72% of Utah college students attend a public institution.)

Based on 2009 USHE institutional headcount figures, an increase of 109,000 students is roughly equal to adding another University of Utah, Utah State University, Weber State University, Southern Utah University, Dixie State College, and Snow College to the state’s higher education network within ten years. Obviously, such a massive expansion of physical facilities is unrealistic. However, the need for expanded infrastructure (facilities and technology capacities) to accommodate this increased demand is real and must be strategically prioritized according system and institutional priorities. A significant variable that will influence this prioritization process will undoubtedly be the state’s growth projections by county.

Goal for 2020: 66% of Utahns age 25 to 64 to have earned a degree or certificate
Capacity Challenges

Simply put, capacity must increase in order to reach Utah’s “big goal.”

As part of this planning process, USHE and the Utah–based private institutions that account for 95% of all degrees and certificates awarded in 2008–09 were asked to estimate their student headcount capacity by the year 2020. The estimates assumed traditional growth in resources and facilities (mirroring those of the last decade) and no budget cuts. The reporting private institutions projected zero to moderate growth in student capacity to help accommodate the 109,000 more students needed to attain Utah’s “big goal.” Clearly, the bulk of the demand for meeting Utah’s “big goal” will need to be met by USHE institutions.

Increasing capacity of USHE institutions, however, must be accomplished without compromising quality. Thus, an essential factor in estimating the capacity of a campus is understanding where class size and frequency of offering are maximized without compromising the quality of the instruction and learning. It may be easy to assume that adding another student or ten to a class is as easy as adding their names to the role, but it is not. Depending on the type of class and available and appropriate technologies, adding more students may impede the effectiveness of a professor to train and prepare students for the workforce. Quality cannot be sacrificed for the sake of capacity.

Table 2: Need for Capacity Increases in USHE Institutions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Growth</td>
<td>33,000</td>
</tr>
<tr>
<td>Additional Growth</td>
<td>+ 76,000</td>
</tr>
<tr>
<td>Big Goal Target</td>
<td>109,000</td>
</tr>
<tr>
<td>Current Peak Capacity</td>
<td>- 49,000</td>
</tr>
<tr>
<td>Distance from Target</td>
<td>60,000</td>
</tr>
</tbody>
</table>

Source: USHE, Office of Institutional Research and Analysis

USHE institutions estimate that without compromising quality, they may be able to accommodate 49,000 more students by 2020—about 60,000 fewer than required by the “big goal.” This gap of 60,000 cannot be closed without an aggressive strategy for growth and enhanced efficiency by USHE institutions, in partnership with the Governor, legislature, and public.
Addressing Capacity Challenges

Enrolling more students, however, is not the only way to achieve Utah’s “big goal.” We will need to enhance the student pipeline while at the same time, transforming higher education through technology, utilizing our facilities more efficiency, and expanding infrastructure.

Improving the Student Pipeline. The student pipeline refers to the total population of students enrolled at any given time in an institution or system of higher education. Admittedly, not every student who begins college will complete a degree, but, as will be discussed later, many more of our students could than do. As depicted in Figure 7, if we increase completion rates by 3%, we would reduce from 76,000 to 57,000 the number of additional students required to meet Utah’s goal by 2020.

To succeed, we need to improve the student pipeline by stopping the leaks; that is, by retaining and graduating more of the students who enroll in higher education. There are leaks, for instance, when students dropout because of poor performance without any institutional intervention; there are leaks when students can’t find sufficient financial aid to continue. There are other problems that slow or clog the pipeline, such as the lack of college readiness for many students that places them into remedial courses, difficulties transferring credit between institutions, and needed courses not being offered on schedule. There are backups in the pipeline when students take 5 or 6 years to complete a 4-year degree. There are also backups where the student and workforce demand far exceed the instructional capacity of an institution. Thus, institutions must address their ability to attract, hire, retain, and office qualified instructors (terminally degreed) to help increase the output of graduates credentialed in areas aligned with workforce demands.

Figure 7
Impact of Increased Completion Rates on Need for New Students by 2020

Source: USHE, Office of Institutional Research and Analysis
Transforming Education through Technology. The apt use of technology can address many of the capacity and efficiency challenges that confront us while, at the same time, improving educational outcomes. Although technology continues to revolutionize many industries, its transformation of education is just beginning. The 2010 National Educational Technology Plan (NETP) calls for revolutionary transformation rather than evolutionary tinkering.30

NETP suggests targeting investments in technology in five areas: 1) Learning—utilize technology to engage and empower all learners; 2) Assessment—find new and better ways to measure what matters; 3) Teaching—build the capacity of educators to enable the shift to a connected model of teaching; 4) Infrastructure—provide students, educators, counselors, and others with the resources they need when and where they need them; and 5) Productivity—help us meet the fiscal responsibility of getting more out of each dollar we spend.31

While Utah has made great strides in offering online courses, programs, and services, the overall impact and potential of technology in instruction, student learning, and student support processes has yet to be realized. Specific recommendations on how technology can better leveraged in improve the higher education experience are discussed in the “Action Plan” section.

Key Findings of the Economist Intelligence Unit

- Technology has had—and will continue to have—a significant impact on higher education. Technological innovation will have a major influence on teaching methodologies over the next five years. In fact, technology will become a core differentiator in attracting students and corporate partners.
- Online learning is gaining a firm foothold in universities around the world. Many institutions of higher education, especially those with a public-service mandate, consider online learning key to advancing their mission, placing advanced education within reach of people who might otherwise not be able to access it.
- Corporate-academic partnerships will form an increasing part of the university experience, at a time when locating funding and controlling costs are key concerns. To attract corporate partnerships, institutions will need to demonstrate a commitment to advanced technologies.

Utilizing Facilities More Efficiently. Efficiency can be gained through the repurposing of existing resources to support more evening, weekend, and online programs, which help maximize the level of use of campus facilities. The strategy would particularly benefit working adult students who have difficulty attending classes during week days.

Expanding Physical Facilities. Another infrastructure issue challenging capacity is the ability to add, remodel, and expand physical facilities to adequately accommodate a growing student body in accordance with Utah’s “big goal.” Specifically, to have the resources to 1) provide local access to postsecondary degree and training programs; 2) have enough and the right kind of instructional space to leverage new technologies and facilitate different learning styles; 3) provide adequate space for faculty offices and support services—e.g., for advising, business, and auxiliary services; and 4) replace, update, or remodel aging facilities according to safety demands and energy cost-savings opportunities.

The strategic allocation of limited resources to address these infrastructure needs should take into account future population growth. Based upon 2009 population estimates from the Governor’s Office of Planning and Budget, we can identify, by county, those areas of the state with the highest expectancy of growth and thus the greatest probability for an increase in demand to access postsecondary degree and training programs through the year 2020 (see Figure 8).
Degree Targets

According to projections, the total number of Utahns to earn an associate’s degree or higher is projected to increase by more than 83,000 by the year 2020. To achieve Utah’s “big goal” an additional 109,000 Utahns will need to earn an associate’s degree or higher by the year 2020. Such an increase equates to roughly 4,000 more degrees earned by Utahns per year over the next ten years.

As part of the mix of degrees necessary to meet future economic needs, Utah will need more of its population earning graduate degrees. State-wide prosperity relies upon expertise and leadership associated with advanced degrees. For instance, many economic sectors in Utah already require a steady supply of master- and doctorate-level skilled employees. This demand will grow throughout the next decade. USHE institutions will continue to develop high-caliber, industry-driven, and research/entrepreneurial graduate programs to meet the expanding social, economic, and civic needs of the state. Utah’s next generation of leaders in science, medicine, engineering, business, and civics will emerge from Utah’s research and masters universities.

Table 3: Participation / Completion Matrix
For Associate’s Degrees and Higher

The following table illustrates the impact of a percentage increase in participation (enrollment) and completion (graduation) rates for all populations from their 2010 rate. The numbers inside the matrix represent what percent of the “big goal” is met under the given conditions. The blue section represents the combinations of increased participation and completion rates that will meet goal of 55% of the Utah population holding an associate’s degree or higher by the year 2020. The red sections are combinations that will fall short of the big goal. These estimates are based on current participation/completion rates and the changes in the Utah18-65 year population.

<table>
<thead>
<tr>
<th>Participation Rate Increase</th>
<th>0%</th>
<th>1%</th>
<th>2%</th>
<th>3%</th>
<th>4%</th>
<th>5%</th>
<th>6%</th>
<th>7%</th>
<th>8%</th>
<th>9%</th>
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<tr>
<td>10%</td>
<td>103%</td>
<td>109%</td>
<td>114%</td>
<td>120%</td>
<td>125%</td>
<td>131%</td>
<td>136%</td>
<td>141%</td>
<td>147%</td>
<td>152%</td>
<td>158%</td>
</tr>
<tr>
<td>9%</td>
<td>97%</td>
<td>102%</td>
<td>107%</td>
<td>112%</td>
<td>117%</td>
<td>123%</td>
<td>128%</td>
<td>133%</td>
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<td>143%</td>
<td>148%</td>
</tr>
<tr>
<td>8%</td>
<td>90%</td>
<td>95%</td>
<td>100%</td>
<td>105%</td>
<td>110%</td>
<td>115%</td>
<td>120%</td>
<td>124%</td>
<td>129%</td>
<td>134%</td>
<td>139%</td>
</tr>
<tr>
<td>7%</td>
<td>84%</td>
<td>88%</td>
<td>93%</td>
<td>97%</td>
<td>102%</td>
<td>106%</td>
<td>111%</td>
<td>115%</td>
<td>120%</td>
<td>124%</td>
<td>129%</td>
</tr>
<tr>
<td>6%</td>
<td>77%</td>
<td>82%</td>
<td>86%</td>
<td>90%</td>
<td>94%</td>
<td>98%</td>
<td>103%</td>
<td>107%</td>
<td>111%</td>
<td>115%</td>
<td>119%</td>
</tr>
<tr>
<td>5%</td>
<td>71%</td>
<td>75%</td>
<td>79%</td>
<td>83%</td>
<td>87%</td>
<td>90%</td>
<td>94%</td>
<td>98%</td>
<td>102%</td>
<td>106%</td>
<td>110%</td>
</tr>
<tr>
<td>4%</td>
<td>64%</td>
<td>68%</td>
<td>72%</td>
<td>75%</td>
<td>79%</td>
<td>82%</td>
<td>86%</td>
<td>90%</td>
<td>93%</td>
<td>97%</td>
<td>100%</td>
</tr>
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<td>3%</td>
<td>58%</td>
<td>61%</td>
<td>65%</td>
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<td>71%</td>
<td>74%</td>
<td>78%</td>
<td>81%</td>
<td>84%</td>
<td>87%</td>
<td>91%</td>
</tr>
<tr>
<td>2%</td>
<td>52%</td>
<td>55%</td>
<td>58%</td>
<td>61%</td>
<td>63%</td>
<td>66%</td>
<td>69%</td>
<td>72%</td>
<td>75%</td>
<td>78%</td>
<td>81%</td>
</tr>
<tr>
<td>1%</td>
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<td>51%</td>
<td>53%</td>
<td>56%</td>
<td>58%</td>
<td>61%</td>
<td>64%</td>
<td>66%</td>
<td>69%</td>
<td>71%</td>
</tr>
<tr>
<td>0%</td>
<td>39%</td>
<td>41%</td>
<td>43%</td>
<td>46%</td>
<td>48%</td>
<td>50%</td>
<td>53%</td>
<td>55%</td>
<td>57%</td>
<td>59%</td>
<td>62%</td>
</tr>
</tbody>
</table>

Source: USHE, Office of Institutional Research and Analysis

Degree & Certificate Definitions for Utah’s Big Goal

Certificate:
- 900 cumulative membership hours
- A minimum 1 year in college

Degree:
- Associate’s degree or higher
Credentials and Occupations that Can Produce a Livable Wage

Utah’s big goal emphasizes degrees and certificates that can produce a livable wage. This emphasis has been placed because every type of credential does not generally produce a sufficient income to sustain a family.

The livable wage shown in Table 4 is the hourly rate that an individual must earn to support a family if he or she is the sole provider and is working full-time (2,080 hours per year). The state minimum wage is the same for all individuals, regardless of how many dependents they may have. The poverty rate is typically quoted as gross annual income. The table shows both the annual income and hourly wage for the sake of comparison. Wages that are less than the living wage are shown in red. Table 5 shows typical hourly wages for occupations in Utah.

<table>
<thead>
<tr>
<th>Hourly Wages</th>
<th>One Adult</th>
<th>One Adult, One Child</th>
<th>Two Adults</th>
<th>Two Adults, One Child</th>
<th>Two Adults, Two Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty Wage</td>
<td>$5.04</td>
<td>$6.68</td>
<td>$6.49</td>
<td>$7.81</td>
<td>$9.83</td>
</tr>
<tr>
<td>Minimum Wage</td>
<td>$7.25</td>
<td>$7.25</td>
<td>$7.25</td>
<td>$7.25</td>
<td>$7.25</td>
</tr>
<tr>
<td>Living Wage</td>
<td>$7.84</td>
<td>$15.26</td>
<td>$12.23</td>
<td>$19.64</td>
<td>$25.66</td>
</tr>
<tr>
<td>Required Annual Salary</td>
<td>$16,308</td>
<td>$31,736</td>
<td>$25,444</td>
<td>$40,847</td>
<td>$53,375</td>
</tr>
</tbody>
</table>

Source: USHE, Office of Institutional Research and Analysis

Table 5: Typical Hourly Wages in Utah

<table>
<thead>
<tr>
<th>Occupational Area</th>
<th>Typical Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>$33.54</td>
</tr>
<tr>
<td>Business &amp; Financial Operations</td>
<td>$25.30</td>
</tr>
<tr>
<td>Computer &amp; Mathematical</td>
<td>$26.34</td>
</tr>
<tr>
<td>Architecture &amp; Engineering</td>
<td>$27.32</td>
</tr>
<tr>
<td>Life, Physical &amp; Social Science</td>
<td>$21.98</td>
</tr>
<tr>
<td>Community &amp; Social Services</td>
<td>$15.43</td>
</tr>
<tr>
<td>Legal</td>
<td>$26.25</td>
</tr>
<tr>
<td>Education, Training &amp; Library</td>
<td>$16.11</td>
</tr>
<tr>
<td>Arts, Design, Entertainment, Sports &amp; Media</td>
<td>$16.68</td>
</tr>
<tr>
<td>Healthcare Practitioner &amp; Technical</td>
<td>$25.90</td>
</tr>
<tr>
<td>Healthcare Support</td>
<td>$15.43</td>
</tr>
<tr>
<td>Protective Service</td>
<td>$15.14</td>
</tr>
<tr>
<td>Food Preparation &amp; Serving Related</td>
<td>$8.37</td>
</tr>
<tr>
<td>Building &amp; Grounds Cleaning &amp; maintenance</td>
<td>$9.39</td>
</tr>
<tr>
<td>Personal Care &amp; Services</td>
<td>$9.92</td>
</tr>
<tr>
<td>Sales and Related</td>
<td>$12.32</td>
</tr>
<tr>
<td>Office &amp; Administrative Support</td>
<td>$12.94</td>
</tr>
<tr>
<td>Farming, Fishing and Forestry</td>
<td>$11.95</td>
</tr>
<tr>
<td>Construction and Extraction</td>
<td>$15.79</td>
</tr>
<tr>
<td>Installation, Maintenance &amp; Repair</td>
<td>$17.07</td>
</tr>
<tr>
<td>Production</td>
<td>$14.20</td>
</tr>
<tr>
<td>Transportation and Material Moving</td>
<td>$14.07</td>
</tr>
</tbody>
</table>

Source: Utah Department of Workforce Services
Strategic Priorities

Utah’s challenge is to increase the reach and quality of education over the next decade in order to improve the quality of life in Utah in the face of a truly global economy. Meeting this challenge will test our collective commitment and resolve.

We will not meet this challenge without a clear plan. Thus, to initiate this planning process, the State Board of Regents has identified the following three strategic priorities:

1. Increase the rate of student participation in postsecondary education programs. (Sources include an expanded high school-to-college pipeline, early college for some high school students, and a return of adult learners who did not enroll in college directly after graduating from high school or fell short of completing a degree—see Figure 9.)

2. Increase the rate of student completion of a degree or certificate in their chosen field of study or training. (Begins with improved student retention.)

3. Increase the level of economic innovation. (To provide employment opportunities for graduates and to strengthen the knowledge-based economy in Utah and throughout the United States.)

The following discussion examines these strategic priorities in more detail, setting forth the rationale for these approaches and articulating the challenges Utah faces in meeting them. This section is meant to be a brief overview of some of the salient issues. It opens the door for further discussion and collaboration. In the interest of space, the discussion focuses more on the problems to be addressed than on the existing strengths we have to build upon. Nevertheless, these strengths are significant and will be part of our on-going discussions and strategies.
Strategic Priority 1: Increase the Rate of Student Participation

Life-long Learning: A Necessity

Life-long learning has become a necessity. In years past, a student could graduate from high school, obtain a job, and gainfully work throughout his or her lifetime—with little or no additional education or training. Today, education and training beyond high school is essential to maintain employment and earn a livable wage.

By 2018, 66% of the jobs in Utah will require some level of postsecondary education. Furthermore, with the rapid increases in technology, today’s workplace requires workers who are willing to learn and adapt as occupational demands change.

Aspirations for higher education begin at an early age and are fostered by parents, teachers, counselors, and other mentors. We need to encourage youth from all backgrounds to reach their full potential—and provide the opportunities for them to do so.

Adults should also be encouraged to consider how education may improve their quality of life. Many have found greater fulfillment and made greater contributions to society by adding a higher degree or additional education or training to their existing education and work experience.
The High School to College Pipeline

Increase College Enrollment Immediately Following High School.
If we are to have more students with postsecondary preparation, we will need to increase the number of prepared students enrolling in college from high school. While our high school graduation rate of 88%\textsuperscript{34} is one of the highest in the nation, our high school-to-college matriculation rate is much lower. In 2008, of the 88% who graduated from high school, 44% went to college within one year of high school graduation. Of the total population of 19-year-olds in Utah, only 36% enrolled directly in college out of high school.\textsuperscript{35}

Some of the gap between high school graduation and college enrollment is accounted for by the “Mormon mission phenomenon,” where many young men (typically age 19–21) and young women (age 21–23) of the Mormon faith serve a two-year or eighteen-month church mission. However, a study that looked at college enrollment within three years post-high school graduation found that 64% of 2007 high school graduating class had attended at least one semester of college,\textsuperscript{36} suggesting that missionary service may account for only about 20% of the gap. (More research may be needed in this area.)

Other circumstances that may account for this gap are insufficient financial resources and the rising cost of higher education, inadequate preparation for college, low high school performance, lack of career direction, and low expectation for college (especially among minorities and women). These issues will be discussed in more detail hereafter.

Notably, the *Measuring Up 2008* report indicates that student enrollment in college by age 19 has dropped by 14% in Utah since the early 1990s, in contrast to a nationwide increase of 8%.\textsuperscript{37} Some observers attribute part of this decline to changing demographics in the state (e.g., an increasing number of immigrants). These demographic changes will need to be addressed for the state as a whole to advance.
Current ACT participation rates and scores are good indicators of Utah’s high school students’ inclination toward and preparation for college.

- For the high school graduating class of 2010, 71% took the ACT® test (the college entrance exam required by most of Utah’s institutions of higher education).
- Last year, about 23% of 10th grade students took the PLAN® test (the pre-ACT test taken by college-bound sophomores).
- Last year, about 5% of 8th-grade students took ACT’s EXPLORE® test (a test intended to help students choose a career direction and plan high school courses).

### Points of Discussion:
- An insufficient number of high school students are preparing for college in their early high school and middle school years.
- The number of students planning to attend college (as indicated by ACT test-taking behaviors) is too low to meet Utah’s goal.
- Performance in key areas critical to success in college is too low: only 26% of students in Utah taking the ACT met the benchmarks in all four subjects.
- Only 45% of Utah students taking the ACT met the benchmark in mathematics; only 32% met the benchmark in science.

### ACT Benchmark Scores

Minimum ACT scores that indicate graduates are ready for entry-level college coursework are:

- English – 18
- Mathematics – 22
- Reading – 21
- Science – 24

Students with this minimum score have a 50% chance of a B grade or higher (and a 75% chance of a C grade or higher) in college-level entry class.

---

**Figure 10**

*State of College Readiness in Utah*

*Percent of ACT-tested high school graduates meeting College Readiness Benchmarks, 2010*

![Chart showing the percentage of ACT-tested high school graduates meeting college readiness benchmarks in English, Mathematics, Reading, and Science for Utah and the nation.]

Source: ACT *The Condition of College & Career Readiness, Class of 2010* (Utah Profile Report)
The current number of college students in remedial courses is another indicator of student preparation for college. A significant number of students entering college are unprepared to begin college-level coursework in all subjects, particularly in mathematics. Open enrollment institutions in particular devote considerable resources to remedial education, but all institutions are affected (see Table 6 below).

Figure 11 indicates that 53% of students requiring remediation are in the 19-to-24 age group. Of that group, 14% enrolled directly out of high school in 2008. Others in the group include continuing students who had previously enrolled out of high school and students who postponed college enrollment for a year or two.

<p>| Table 6: Remedial Course Registration (from unduplicated individuals) in USHE Institutions, AY 2008-2009 |</p>
<table>
<thead>
<tr>
<th>Institution</th>
<th>English</th>
<th>Math</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>USU</td>
<td>1,479</td>
<td>1,479</td>
<td></td>
</tr>
<tr>
<td>WSU</td>
<td>868</td>
<td>2,880</td>
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</tr>
<tr>
<td>SUU</td>
<td>306</td>
<td>306</td>
<td></td>
</tr>
<tr>
<td>Snow</td>
<td>79</td>
<td>419</td>
<td>498</td>
</tr>
<tr>
<td>DSC</td>
<td>665</td>
<td>926</td>
<td>1,591</td>
</tr>
<tr>
<td>CEU</td>
<td>118</td>
<td>293</td>
<td>411</td>
</tr>
<tr>
<td>UVU</td>
<td>1,497</td>
<td>4,967</td>
<td>6,464</td>
</tr>
<tr>
<td>SLCC</td>
<td>3,610</td>
<td>7,055</td>
<td>10,916</td>
</tr>
<tr>
<td>Total</td>
<td>7,088</td>
<td>18,325</td>
<td>25,413</td>
</tr>
</tbody>
</table>

Source: USHE, Office of Institutional Research and Analysis

Points of Discussion:

- According to ACT, students best prepared to enter College Algebra will have completed rigorous high school courses in Algebra I, Algebra II, Geometry, and Pre-Calculus. Students planning to major in some STEM (Science, Technology, Engineering and Math) disciplines will be best prepared if they have completed Calculus successfully during high school.

- Presently, a Utah high school diploma requires a minimum of three years of mathematics for a high school diploma (although some districts have higher requirements). **Less than half of all high school seniors in Utah enroll in any mathematics class in their senior year.**

- Students who don’t take math in their senior year of high school are frequently required to take remedial math because they have forgotten too much. Even more so if they postpone college for any reason.

- Many students are unable to select STEM majors in college because they are unprepared in mathematics.
Create higher expectations for K–12 students.
At their August 6, 2010 meeting, the Utah State Board of Education (USOE) adopted the *K–12 Common Core State Standards for Mathematics and English Language Arts*. The Common Core State Standards, currently adopted by 33 other states, provide a consistent, clear understanding of what students are expected to know and be able to do so that teachers and parents know how to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that young people need for success in college and careers.

USOE is now working on implementation plans and support documents. The higher education community supports them in this endeavor as they consider recommendations from ACT\(^\text{38}\) and from the USOE Mathematics Steering Committee.\(^\text{39}\) Clearly, parents will need to become active partners in supporting the standards and learning (not just good grades) as these new standards are implemented.

**Recommendations from ACT “QualityCore” Curriculum**

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Algebra I</td>
<td>- English 9</td>
</tr>
<tr>
<td>- Algebra II</td>
<td>- English 10</td>
</tr>
<tr>
<td>- Geometry</td>
<td>- English 11</td>
</tr>
<tr>
<td>- Pre-Calculus</td>
<td>- English 12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Science</th>
<th>Social Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Biology</td>
<td>- U.S. History</td>
</tr>
<tr>
<td>- Chemistry</td>
<td>- Two other courses</td>
</tr>
<tr>
<td>- Physics</td>
<td></td>
</tr>
</tbody>
</table>

Adopt rigorous core curriculum whether students are bound for college or for work. Help students keep their options open.

**Points of Discussion:**

- Some high school students consider that the greater part of their academic work in high school is finished after they have taken their college entrance and state exams in their junior year.
- How can we get more students to take a rigorous high school curriculum – THROUGH the senior year of high school?


- Require the study of mathematics in the senior year of high school.
- Promote a statewide effort addressing the importance, relevance, and necessity of mathematics in education and for career and post-high school readiness.
- Increase counseling support for parents and students to better acquire critical mathematics skills necessary for choice in postsecondary pathway selection.
- Create a culture and provide supports so that all students will graduate from high school.
- Encourage representatives from postsecondary institutions, business, and industry to be available as resources to teachers, counselors and students.

Robert Moses, founder of the Algebra Project, describes mathematics literacy as a civil right. Increasingly, advanced mathematics is becoming the gateway to both workforce training and college entrance.
Increase Opportunities for High School Students to Earn College Credits Early. There are multiple ways for students to shorten their path to college completion by earning college credits while still in high school. These include Advanced Placement (AP), International Baccalaureate (IB) programs, and early college dual-enrolled opportunities (concurrent enrollment).

Over 28,000 Utah students are concurrently enrolled in high school and college. Last year (AY 2009-10), high school students earned 108,294 credits in general education courses, including English 1010 and Math 1050. They earned 67,429 credits in CTE (Career and Technical Education) courses and 37,256 credits in other academic courses (with some overlap between the general education and CTE courses). High school students who complete enough college credit to earn an associate’s degree may be rewarded for their efforts with a scholarship to a 4-year public college or university within the Utah System of Higher Education, as well as at Brigham Young University–Provo and Westminster College.

Many students who have taken college-level courses in high school, however, find that the courses they have taken have not advanced them toward a particular degree. They may have filled their transcripts with concurrent enrollment courses, but not with core courses required for specific degrees. A major in a STEM field, for instance, requires pre-requisites that are generally taken during the freshman and sophomore year of college. Students not taking these critical courses in early college programs may find that the effort to take concurrent enrollment courses does not pay off in shortening the path to college completion.

We need to assure that high school pathways for early college credit both strengthen secondary education institutions and are focused on courses that will help students continue on and succeed in college.

Points of Discussion:

• During the 2009-10 year, 133 public, charter, and alternative high schools participated in the concurrent enrollment program. Students from all USOE districts earned 193,384 hours of concurrent credit.

• The Association for Career and Technical Education suggests that institutions of higher education should create many pathways for high school students to enter higher education. Providing students with multiple entry points will assist them in making the transition from high school to college and careers, help them feel confident about enrolling in college, and give them an early stake in their higher education. This might involve an institution offering at least one concurrent enrollment course in each of the CTE areas for which it offers a degree.

• Another option would be to focus dual-enrollment courses on those core courses that are key to most majors.
Provide Advising on College Readiness Behaviors to More Elementary, Middle, and High School Students. Counseling on the course selections and other school experiences that will provide students with the most options (including college enrollment) in the middle and high schools builds a college-going culture among students and helps students and families understand the value of college. To create this culture, school counseling programs must ensure that students and families understand the importance of taking college-preparatory courses, know how to navigate the college admission process, and comprehend the financial aid processes. Middle school programs are especially helpful to ensure that students are completing course work that will allow them to participate in a college preparatory curriculum upon entering high school.40

While adequate advising by school counselors is essential to help students prepare for college and make decisions about educational opportunities, school counselors in Utah schools, like those across the nation, are extremely overloaded in the number of students to whom they must provide services. To reach Utah’s big goal, we will need funds dedicated to hiring quality advisors who have current and accurate information on college expectations. We will also need the capacity to train counselors to meet this need.

“Within schools, no professional is more important to improving college enrollments than counselors. Research clearly shows that counselors, when consistently and frequently available and allowed to provide direct services to students and parents, can be a highly effective group of professionals who positively impact students' aspirations, achievements, and financial aid knowledge.”

Patricia McDoghough, “Counseling and College Counseling in America’s High Schools,” University of California.

Points of Discussion:

- Utah averages 1 counselor to 772 students (one of the highest ratios in the nation); the national average is 1 counselor to 467 students. (National College Board, The College Completion Agenda)

- The National College Board, Advocacy & Policy Center recommends one counselor to 250 students if we are to meet the nation's goals for increasing participation and completion in higher education.

- For students who are potentially the first generation in their families to attend college (including many in Utah’s growing immigrant population), college advising is even more critical because students lack the advantage of parental experience in college.
Increase Student Access to Financial Aid. With the rising cost of tuition necessitated by budget cuts and the increased demands on public higher education institutions, affordability is a huge obstacle for many students. In addition to merit-based scholarships, which typically go to students who are already college-bound and who have greater access to financial resources, Utah has an urgent need to provide need-based financial aid. By all measures, Utah provides among the lowest amounts of financial aid per person than any of the other states (see Figure 12). In fact, the Measuring Up 2008 report gives Utah an “F” in affordability.

The correlation between lower income families and the likelihood of their children not participating in college is significant. Utah ranks 42nd in the U.S. for college participation rates for students from low-income families, in large part because Utah has not established need-based aid programs of any significance. The state’s investment in need-based financial aid is very low when compared with top performing states; families in Utah devote an average of 21% of the family income to keep one child in college. (And most families in Utah have more than one child.) Without addressing need-based aid, Utah will only exacerbate the divide between the “haves” and “have-nots.”

Table 7: Utah State Financial Aid Appropriations, FY 2010-2011

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Student Financial Aid</td>
<td>$3,316,300</td>
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<tr>
<td>Utah Centennial Opportunity Program for Education Grant (UCOPE)</td>
<td>$1,418,400</td>
</tr>
<tr>
<td>Utah Educational Savings Plan (UESP)</td>
<td>$39,200</td>
</tr>
<tr>
<td>Minority Scholarship</td>
<td>$36,900</td>
</tr>
<tr>
<td>Utah Higher Education Tuition Assistance Program (UTAP)</td>
<td>$36,900</td>
</tr>
<tr>
<td>New Century Scholarship Program</td>
<td>$5,579,000</td>
</tr>
<tr>
<td>Regents’ Scholarship</td>
<td>$2,624,300</td>
</tr>
<tr>
<td>Total</td>
<td>$13,051,000</td>
</tr>
</tbody>
</table>

Source: USHE, Office of Institutional Research and Analysis

Points of Discussion:
- Utah ranks 48th (of 52) in grant dollars per population age 18-24. (National Association of State Student Grant and Aid Programs 40th Annual Survey Report, 2008-2009)
- Utah ranks 42nd for college participation of students from low-income families. (Postsecondary Education Opportunity #188, February 2008)
- Low income and minority students who receive grants are more likely to persist than those who receive loans. (Educational Policy Institute, StudentRetention.org)
- The state’s investment in need-based financial aid is very low when compared with top performing states, and Utah does not offer low-priced college opportunities. (Measuring Up, 2008)
Raising Educational Attainment for Everyone

Adult Students (25–64+). The mainstay of the state’s talent force, adults aged 25–64+, will be a vital component of Utah’s efforts to raise educational attainment. This includes those who have never completed a degree as well as those who seek additional training. The adult population is already a substantial component of higher education and will become increasingly so as Utah demographic, economic, and workplace demands continue to shift.

According to the U.S. Department of Education, 40% of today’s students nationally are aged 25 and older. In Utah, 36% of students in USHE institutions are over 25. This population, particularly the 25–45 age group, is estimated to grow by approximately 28% over the next 10 years. By comparison, the number of Utah high school graduates is estimated to grow by only 24% over the same time period. Education targeted to the needs of this population will be critical to the success and prosperity of Utah.

Institutions of higher education are constantly faced with the challenge of providing education and services to workers who fall outside the profile of the traditional college student. The severity of these needs fluctuates, depending on local, state, and national economic trends. In the current economy, the Utah Department of Workforce Services (DWS) reports that 55,900 jobs had been lost in 2009. Even though a significant number of jobs have been created, it doesn’t follow that those who lost the old jobs were hired for the new ones. Frequently, retraining through further education is required.

Adult Learners in Utah
- Adult learners (students over 25) already comprise about 36% of students in USHE institutions.
- Utah’s 25-45 age group is estimated to grow by about 28% over the next 10 years.
- This population has tremendous potential for increased participation in higher education because of the number of individuals who have an incomplete degree or now see the benefit of furthering their education.
- Adult learners come from diverse backgrounds, including:
  - Unemployed, needing training or retraining
  - Underemployed, needing training or retraining
  - Veterans, needing to resume or begin training
  - Displaced homemakers, needing training
  - Incomplete degrees, needing to resume training
  - Career changes, needing retraining
  - Career advancement, needing additional training.
Educational Needs of Adult Students. Adult students, and for that matter, a large number of traditional-age students, face a number of significant barriers to participation in higher education and completion of degree programs. These barriers or concerns include:

- External commitments—families, work, time constraints
- Under preparation—low performance in K–12 years and/or a long absence from formal education
- Difficulty transferring credits from a former institution
- Uncertainty about financial aid and educational procedures
- Inflexible financial aid policies for half–time students
- Lack of affordable, flexible, quality child care.

Addressing these and related concerns will take considerable thought, effort, creativity, and flexibility. Some of these issues are within the control of an institution to address and resolve, such as the credit articulation from one institution to another and the flexibility of course, certificate, and degree offerings. Much has already been done to improve these options with more improvements yet to come.

Other issues to be addressed and resolved will require partnering with agencies like the Utah Higher Education Assistance Authority (UHEAA) and the Utah Department of Workforce Services (DWS). For example, UHEAA is currently exploring a private loan program and other financial aid options for students studying less than half–time.

As our nation passes through a period of significant change with respect to its economic security, demographic profile, and competitive position on the global stage, it is especially important that we enable our higher education institutions to become more responsive to the needs of students of all types.

– Stokes, Hidden in Plain Sight: Adult Learners

Points of Discussion:
A sample of changes that would be beneficial to adult learners includes:

- Easier transfer of credit from institution to institution
- More flexible course, certificate, and degree programs (complete programs offered in the evenings, on weekends, and online)
- More flexible financial aid policies for those studying less than half–time
- More flexible financial aid policies for those receiving funds from the Utah Department of Workforce Services
- More access to flexible, affordable child care
- Improved counseling services and access to services for non–traditional students
- Increased course credit given for prior work experience or competencies certified by the CLEP or other exams.
Minorities in Higher Education. In tackling the “big goal,” Utah must recognize its rapidly changing demographics. Over the past few decades Utah has changed from a largely homogenous state to one that is more ethnically diverse. By the year 2020 over one–fifth (approximately 22%) of Utah’s population will be an ethnic minority.\(^49\) This is evident today in elementary schools across the state. Presently, ethnic minority populations are significantly under–represented in completion of higher education. Of the degrees awarded by USHE institutions in 2008–2009, only 10.7% were awarded to students from minority populations, while these groups comprise approximately 18% of the state population.\(^50\) This must change.

The National Center for Public Policy and Higher Education reports that Utah has a 17% gap between Caucasians and all minorities in the percentage of 18– to 24–year–olds enrolled in college, which is one of the largest gaps in the nation. The gap between Caucasians and Hispanics is 29%.\(^51\) The disparity begins much earlier than college. Utah’s high school class of 2008 graduated 70% of Hispanic students compared with 91 percent of Caucasian students. Only 16% of the Hispanic high school graduates enrolled in college compared with 45% of Caucasians.\(^52\) While Hispanics comprise 12.3% of Utah’s population, they comprise only 5.4% of its college enrollment and 3.6% of those who receive degrees (see Table 8).\(^53\) These trends must be reversed if Utah is to remain economically competitive and its residents relevant in the workplace.\(^54\)

Unless Utah’s children succeed in K–12 education, they will not enroll in higher education. Thus, Utah must help its growing minority population advance from elementary and intermediate schools ready to succeed in and graduate from high school so that they are well–prepared for college. As discussed earlier, the gap between Hispanic and Caucasian students in higher education is one of the highest in the nation. This makes community support and K–12/higher education partnerships vitally important to close the enrollment gap and make higher education a reality for minority Utahns.
Women in Higher Education. The number of Utah women attending college is well below the national average with only 49% enrolled as compared to 57% nationally. According to a recent report of the Utah Women and Education Project (UWEP), “Utah has the largest gap between the share of men and women with college educations of any state.” While the educational attainment of women in Utah exceeded the national average for many decades, Utah is now below the national average in both the number of young women going to college initially after high school and the number of women completing degrees. (The decline in Utah’s ranking is not because fewer Utah women are enrolled in college, but because the percentage of women enrolled in the state has declined.) The UWEP task force is currently researching the causes and potential solutions of this problem.

Figure 1.1: Female Enrollment by State  
2008 Data, Public Institutions  
Solid Green Bar Denotes Utah Average

Points of Discussion:

- Women comprise 44% of the labor force in Utah; almost 61% of females aged 16 and older were employed in 2008.
- Women in Utah are more likely to be poor than men.
- Women in Utah receive the larger percentage of associate’s degrees (55%) while men receive the larger percentage of bachelor’s and professional degrees (47% and 41%).
- A higher percentage of women participate in certificate trade programs (such as cosmetology, massage, and culinary arts) that are focused on short-term training. These certificates do not generally lead to a livable family wage.

Current completion rates for women are a concern for many reasons. For instance, the number of single mothers supporting children and living in poverty is increasing in Utah as it is nationwide. In addition, higher education of women has been clearly linked to a variety of economic and social indicators, including healthier babies and improved early childhood education.

While Utah women are doing well in many aspects of the postsecondary experience, more women in Utah need to consider livable-wage careers when making educational choices. Women who want to maximize their employability and increase their wages, as well as mothers who want flexible working schedules in desirable jobs, need to consider more advanced education in high-demand professions.
Strategic Priority 2: Increase the Rate of Student Completion

We need to retain and graduate more of the students who enroll at our institutions. Too many Utah students leave college before completing a degree. According to the College Board’s 2010 Progress report, only 49% of Utah’s first-time, full-time, freshmen complete a bachelor’s degree within six years of starting their program of study. Additionally, only 40% of first-time, full-time students pursuing an associate’s degree complete within three years of beginning their program.56

A formative measure of progress toward completion is the year-to-year retention of students in higher education. Utah’s retention rates are well below the national average. According to ACT, the 2007 national collegiate first-to-second-year retention rate was 64% for two-year colleges and 72% for four-year public colleges. USHE institutions’ average retention rates are 54% and 63% for two-year and four-year institutions respectively. Some are much lower than this. Given the economic consequences of foregoing higher education, this continuing exodus is concerning.

Financial Perspective. Student recruitment efforts require substantial institutional expenditures (including hiring of staff, travel funding, and marketing costs). In contrast, retention initiatives designed to foster student success and manage enrollment are estimated to be 3–5 times more cost-effective than recruitment efforts. That is, it takes 3–5 times more money to recruit a new student than it does to retain an already enrolled student.57 Thus, for every student who does not complete a degree, the state loses a substantial financial investment.

Institutional Perspective. Our institutions of higher education can best fulfill their mission statements when they are able to retain and graduate the maximum number of their students. Institutions can do much to set a climate of success. USHE will commit its leadership and resources to assisting them in this endeavor. Further, it may be useful to shift the assessment of progress from the number of students enrolled to the number of students completing degrees and certificates.

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It takes three to five times as much money to recruit a new student as it does to retain an already enrolled student.

- Noel, Levitz, & Saluri, 1985
Individual Perspective. There are many reasons a person leaves college, from financial concerns and family responsibilities to poor academic performance and lack of direction. These decisions, however, are often made with short-term solutions in mind, rather than the long-term perspective. Over a life-time, this decision will have far-reaching ramifications. Based on current U.S. Census Bureau data, lifetime earnings estimates over a 40-year working span indicate that an individual with a bachelor’s degree will accumulate approximately $1.7 million dollars ($55,700 a year) as opposed to $1.0 million ($33,800 a year) for a high school graduate (national averages). Additionally, workers with more education are more likely to enjoy the benefits of good health care and retirement programs and avoid lay-offs in times of economic down-turn. The timely intervention of counselors and advisors could play a key role helping students resolve issues that might otherwise keep them from completing their degrees.

Leveraging Resources. Our institutions of higher education have many resources available to assist with student retention and persistence to graduation—advising, tutoring, financial aid, developmental and success classes, and support for targeted populations, to name a few. Some of these student services are excellent; still, there is room for improvement. And even the best of services are of little value if the students for whom they are intended don’t use them. Institution by institution, and as a collective whole, we need to ensure that our student services are aligned with the needs of our student population and include effective intervention programs.

An incomplete 4-year degree doesn’t have as much earning power as a completed 2-year degree.

Improving Student Outcomes

While graduating more students is critical, the quality of the students that Utah institutions graduate is even more critical. Thus, an increased focus on improving student outcomes will be essential. One approach to raising student outcomes is through education that engages students as active participants in the learning process.

Extensive research conducted on students at postsecondary institutions has shown that engaged learning activities improve student success and retention. Curriculum-based, engaged learning activities include (but are not limited to):

- Undergraduate and graduate research
- Faculty-mentored projects (individual and collaborative)
- Internships and cooperative education opportunities
- Study abroad and international field work
- Service learning.

These types of activities improve understanding and retention of course material and increase student interest and commitment. They provide students with opportunities to apply and expand discipline-specific knowledge in a real-world context. They also provide students with professional experience, training and networking for expanding career opportunities.

We call upon members of the business community to provide more internship and similar opportunities, and upon members of the civic community to provide more service learning and related opportunities.
**Complete College America.** The Complete College America movement, of which Utah is a part, shares a similar goal of having six out of 10 young adults in the U.S. obtain a college degree or certificate of value by 2010. Supported by an extensive body of research, Complete College America sets forth essential steps for states and explains how states can implement systemic reforms and innovative policies to significantly increase college completion. Several key points are presented here (the complete discussion can be found on the Complete College America web site).^{59}

Ways to Reduce Time and Accelerate Success:

- **Require all students to have graduation plans and declare majors early.** Establishing formal completion plans for every student upon enrollment, including those who attend part-time, makes it clear from day one: Graduation is the goal.

- **Reduce unnecessary course-taking.** Campuses should scrutinize degree programs to make sure they do not require extraneous credits that can slow down students or force them to take courses that are not relevant to their degrees.

- **Improve transfer policies.** Student success at any and all accredited state institutions should be honored—and counted. Nearly a third of students at four-year colleges will change schools; 60% of those at community colleges will do the same. With so many students on the move, statewide legislation and policies must ensure they can carry their credits with them so valuable effort and time are not lost—and precious financial resources and need-based aid are not squandered.

- **Use summer.** Students should be encouraged to make better use of summer semester to keep on track to graduate. Institutions can assist by planning summer semester offerings well in advance and taking summer offerings into consideration when advising students who are able to attend school in the summer.

- **Provide incentives for full-time enrollment and other strategies that enable acceleration.** Full-time students are far more likely to complete degrees. While many part-time students believe they can’t afford to attend full-time, comprehensive academic advising and financial aid and tuition policies can help encourage more full-time enrollment.
Student Success Story: Tuition-assistance Program Gives Student New Hope

Weber State University launched its new Dream Weber program in January to help students turn their dreams of a university education into reality. Dream Weber provides full tuition for Utah residents whose annual household income is $25,000 or less and who are also eligible for federal Pell Grants.

Psychology major Belia Alvarado is one of those students. She enrolled at WSU at age 34. She was excited, but extremely nervous because she felt she’d done poorly in high school and wanted to change her life. “When Weber State accepted me I was so ecstatic,” Alvarado said. “To me it was my second chance to do everything right because I had done everything wrong when I was younger. I was really excited to come back.”

Alvarado said the tuition assistance will allow her to concentrate on her studies and her many university activities. She is trying to say thanks for all the help she’s received by helping others. At the university she’s been a peer mentor and part of the Pinnacle Honor Society, Hispanic Area Council, and the student services advisory board.

Dream Weber, which is the first tuition-assistance program of its kind in Utah, is possible because of generous donations. Donor money fills the gap between federal and state financial aid and the cost of a student’s tuition.

The program is especially important in a time of economic challenge and has sparked tremendous response. In 2010, 1,947 students from homes with a household income of $25,000 or less applied for admission. That was an 88% increase from 2009.

WSU will make Dream Weber an ongoing program of help and hope for citizens who dream of a future with an education.
Student Success Story: Returning Student Earns Engineering Degree

Andrew Fry dropped out of high school in his senior year, but later received his high school diploma through home study. After graduation, Fry worked at various jobs, including waiting tables at several pizza places, doing custodial work at a power plant, running a cement crew, and working with an HVAC company. He moved to Price and was roofing houses when he realized that he needed a career and not just a job to care for his young family. Having worked with and around engineers, he decided that engineering might be a satisfying career. Fry decided to begin working towards a degree in Engineering at Utah State University-College of Eastern Utah (USU-CEU).

His education at USU-CEU was filled with general education and pre-requisites for engineering, including two math courses each semester in order to catch up to his peers in mathematics. He paid for his first semester himself and did well enough to qualify for a scholarship for the next year. After completing his associate’s degree, Fry transferred to the University of Utah where he was able to complete his bachelor’s degree in two additional years, graduating with a 3.87 grade point average.

He then chose to continue his education staying at the University of Utah to do graduate studies and to work with the combustion research group. Fry was admitted directly into the University’s Ph.D. program where he was awarded the prestigious Wayne Brown fellowship. He graduated four years later with an almost perfect 3.94 grade point average.

Currently, Fry is a Senior Engineer for Reaction Engineering International and the lead researcher on a $3,000,000 U.S. Department of Energy grant. His team is working on a project that investigates the possibilities of burning coal using pure oxygen instead of air to create a pure CO₂ bi-product, which then could be compressed and sequestered or injected into old oil fields, enhancing oil recovery.

According to Fry, he owes his current situation to the rigorous training at USU-CEU and the solid foundation in math which made it all possible.
Student Success Story: The Daring Journey of a Valedictorian

Southern Utah University’s 2010 valedictorian, Robyn LaLumia had a dream to pursue. She left a good job and enrolled at SUU in the hotel, resort and hospitality management program at the same time her teenage daughter began her freshman year of high school.

On her path to graduation, LaLumia faced a number of challenges—balancing work and home, family and school. Mid-way through her schooling, she lost her husband to cancer and faced the difficulties of grief and life as a single parent.

On her path to graduation, LaLumia successfully navigated personal hardships that could have easily derailed her education—choosing instead to work harder, focus more, and rely on the relationships she had developed with professors and advisors to help her persevere. Although LaLumia’s college experience was fraught with more hardship than most, she is confident when she says she would most certainly do it all again.

In fact, LaLumia welcomed the rigors of academia, explaining, “School kept me looking forward and thinking about the future rather remaining in the sadness of losing my husband. It helped me realize that life moves forward whether we want it to or not.”

And move forward she did. Believing in Helen Keller’s axiom that “Life is either a daring adventure or nothing at all,” LaLumia graduated with perfect marks as a non-traditional, widowed, first generation student. Of this experience, she explains, “I always knew I wanted a college degree; once I finally got started, I just couldn't let myself quit—no matter the hardship.”

LaLumia credits much of her academic accomplishment to the support network she had in friends and professors who worked with her and bolstered her through a few very challenging semesters. She explains, “My success was not resting on my shoulders alone—I had teachers and advisors standing behind me.”

Her degree complete, LaLumia plans to continue the adventure by pursuing a career in four-star resort management and marketing.
Strategic Priority 3: Increase the Level of Economic Innovation

As Utah increases its participation and completion rates, it must also grow in meaningful employment opportunities for its graduates. These opportunities are created as students graduate with the requisite talent aligned with the needs of companies to grow their business. Whether it is by training the technician, improving existing operations for increased profitability, or coaching start-up companies, colleges and universities nurture individuals and companies that grow the state’s economy. Additionally, they create new knowledge by supporting research endeavors that generate ideas and technology that can be profitably transferred to the marketplace.

Colleges and universities are by nature clusters of creative, innovative individuals engaged in a collective effort to develop new ideas and apply them to mankind’s most vexing problems. At its best, higher education challenges students to apply what they are learning in the world around them—to develop approaches that can potentially become new companies that generate jobs for Utahns. For instance, much of the research being done at the University of Utah is spun out into newfound companies, resulting in ongoing revenue for the school. For the past two years, the University of Utah has created the second highest number of start-up companies of any U.S. university, second only to the Massachusetts Institute of Technology.

The Utah State Board of Regents’ priority to increase the level of economic innovation will be accomplished through talent-force development, research, technology transfer, and by nurturing individuals and companies that create new knowledge, businesses, and jobs. To foster economic innovation, we must: 1) align education to meet future talent-force needs, and 2) establish a climate where partnerships between government, education, and industry flourish.
Aligning Education to Meet Future Talent-Force Needs

Economic innovation doesn’t happen in a vacuum. As leaders, we must be alert to the national and international trends that are shaping workforce needs and shape our educational solutions accordingly. For instance, today’s workforce pathways are in *occupations* rather than in *careers.* According to the Center on Workforce and Education, workers will tend to be more attached to the occupations they will be filling than to the specialized industries in which they work. Not only will we need to train an innovative talent-force with broad-based skills, we will need to be savvy about where we deploy scarce development resources.

For example, it is expected that by the year 2018, there will be a 44% increase in job openings in computer engineering, a 10% increase in electric/electronic technology jobs, and a 41% increase in registered nursing jobs in Utah. It is incumbent upon the higher education and technical training institutions to align course curricula and educational programs with business opportunities and industry needs Utah must do a better job at developing a talent-force ready to take advantage of the opportunities and meet the needs of the knowledge-based economy if it is to be prosperous in the future.

“We owe it to our students, and to the future of our state, to provide an education that prepares our youth to compete in the global marketplace. This will not happen, however, without renewed and sustained emphasis in the areas of science, technology, engineering and math. Indeed, many of the jobs available today—and those our students will seek in the future—already require these skills.”

- Governor Gary R. Herbert

*Source: Utah Department of Workforce Services, Occupational Outlook – Statewide, 2009*
The alignment of education and employment needs is essential but challenging. One challenge is predicting workforce needs in a globally changing landscape. Another challenge is communication of workforce needs and employment opportunities among stakeholders—higher education, the business community, government (including the Governor’s Office of Economic Development and the Utah Department of Workforce Services), and the public. Technology that facilitates mass collaboration and open source technology, such as wikis, could be used to share information, ideas, and decision making concerning the alignment of education and employment needs. In this way, the dialog could be widened and made more productive.

Another challenge in aligning education and employment needs is that students’ selection of degree programs may not align with current or projected needs and opportunities. Utah higher education and workforce data could be leveraged better to educate students on career and occupational opportunities. Equipped with such information, faculty and career counselors could actively engage students in identifying the training and degree programs that lead them to meaningful and sustainable employment in Utah.

### Employers Say Colleges Should Place More Emphasis on the Following Learning Outcomes

- Ability to communicate effectively both orally and in writing (89%)
- Critical thinking and analytical reasoning skills (81%)
- Ability to apply knowledge and skills to real-world settings through internships or hands-on experiences (79%)
- Ability to analyze and solve complex problems (75%)
- Ability to connect choices & actions to ethical decisions (75%)
- Teamwork skills and the ability to collaborate with others in diverse group settings (71%)
- Ability to innovate and be creative (70%)
- Concepts and new developments in science and technology (70%)
- Ability to locate, organize, and evaluate information from multiple sources (68%)
- Ability to understand the global context of situations and decisions (67%)
- Global issues and developments and their implications for the future (65%)
- Ability to work with numbers and understand statistics (65%)
- Role of the United States in the world (57%)
- Cultural diversity in America and other countries (57%)
- Civic knowledge, civic participation, and community engagement (52%)
- Proficiency in a foreign language (45%)

Establishing a Climate Where Partnerships between Government, Education, and Industry Flourish

An increasing number of model partnerships, both in Utah and nationwide, can inform our efforts to foster collaborative innovation among Utah’s stakeholders. Initiatives like the Utah Cluster Acceleration Project (UCAP) that unite colleges and universities with state agencies (e.g., the Department of Workforce Services and the Governor’s Office of Economic Development) along with state and local business leaders are examples of how the private and public sectors best work together to grow jobs and increase wages. UCAP also helps to align career tracks in business and industry with the course offerings of higher education, which in turn grows our economy.

Utah is at the forefront in demonstrating that higher education can be a trusted partner in a state’s long-term economic development endeavors. For example, the University of Utah is among the nation’s leading institutions in creating new businesses based on university inventions. Utah’s higher education students are already succeeding in the nation’s largest university business plan competition, the Utah Entrepreneur Challenge. With programs like UCAP and USTAR’s (Utah Science, Technology & Research Initiative) Technology Outreach Program (TOP) Utah’s research universities, regional teaching colleges and universities, and community colleges are demonstrating a capacity to support companies in their communities.

The funding for programs like USTAR is quite modest given the scale of the overall state budget. Yet it has demonstrated that economic outcomes are enhanced when funding is directly targeted to economic development initiatives. In addition, USTAR has demonstrated that the highest levels of workforce development occur naturally when graduate students’ studies are integrated with translational research focused on commercialization in support of Utah’s industrial clusters.

Innovation at Work

USTAR has created a number of research teams at the University of Utah and Utah State University. Spearheading these teams are world-class innovators hungry to collaborate with industry to develop and commercialize new technologies. Innovation Focus Areas include:

- Nanotechnology
- Energy
- BioDevice/BioPharma
- Medical Imaging & Brain Medicine
- Imaging Technologies
Higher Education in Utah is a Great Investment

The Utah System of Higher Education is the most efficient higher education system in the U.S. It produces more college graduates per allocated state dollar than any other state. If higher education is looked at as an economic cluster, it is a $4.8 billion industry in Utah, which is a sound return on the state’s estimated annual investment of $1.3 billion.

Of the nearly $5 billion dollars in revenues generated by public postsecondary institutions in Utah, only $970 million (24%) comes from state tax appropriations. These appropriations are support teaching, capital facilities, and state initiatives (state grants). The balance of revenues come from other resources such as tuition, gifts, federal grants, investment returns and enterprise funds.

Postsecondary education by itself employs over 35,359 workers, not including the employment opportunities it creates for students working on their campuses. The existence of a campus in a community also provides the economic engine for many other industries and services.

Yet, these figures don’t account for the profitability of tangential businesses that depend upon or are created from the operation of Utah’s colleges and universities. Postsecondary education plays a key role in attracting, creating, and supporting businesses in the state of Utah. The total financial impact is simply incalculable; but nonetheless, an investment in higher education is a wise economic investment that directly impacts every community and region of the state.

According to the University of Utah, every public dollar invested in higher education yields a $7 return into Utah’s economy.

Table 9: Utah’s Education Sector

<table>
<thead>
<tr>
<th>Institution Sector</th>
<th>Employees*</th>
<th>Total Revenues^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Institutions</td>
<td>25,859</td>
<td>$4,068,352,802</td>
</tr>
<tr>
<td>Private, Not-for-profit</td>
<td>7,785</td>
<td>$ 550,303,349</td>
</tr>
<tr>
<td>Private, For-profit</td>
<td>1,715</td>
<td>$ 182,786,977</td>
</tr>
<tr>
<td>Total</td>
<td>35,359</td>
<td>$4,801,443,128</td>
</tr>
</tbody>
</table>

* Full and part-time employees in all job categories (includes graduate assistants, excludes all other student employment)

^ Revenues from all sources including investments, enterprise funds, grants, gifts, sale of services, tuition, and state appropriations

Education should be viewed as an asset synonymous with economic development. Investment today in education will yield prosperous rewards tomorrow with a vibrant economy for Utah. A significant variable in attracting, retaining, and growing business is the quality of a state’s educational system—elementary through higher education.

Each graduating class from college will add approximately $650 million into Utah’s economy in earned wages a year. To illustrate:

<table>
<thead>
<tr>
<th>Award Type</th>
<th>Count</th>
<th>Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 Yr Cert</td>
<td>971</td>
<td>$1,349,083</td>
</tr>
<tr>
<td>1 &amp; &lt; 2 year Cert</td>
<td>386</td>
<td>$871,311</td>
</tr>
<tr>
<td>Associate</td>
<td>8,078</td>
<td>$121,835,435</td>
</tr>
<tr>
<td>Bachelor</td>
<td>11,302</td>
<td>$222,526,783</td>
</tr>
<tr>
<td>Post Bacc. Cert</td>
<td>296</td>
<td>$7,592,298</td>
</tr>
<tr>
<td>Master's</td>
<td>2,894</td>
<td>$110,846,542</td>
</tr>
<tr>
<td>Post Master's Cert</td>
<td>32</td>
<td>$1,538,389</td>
</tr>
<tr>
<td>Doctoral</td>
<td>493</td>
<td>$11,362,882</td>
</tr>
<tr>
<td>1st Professional</td>
<td>270</td>
<td>$4,848,143</td>
</tr>
<tr>
<td>Nine Month Total</td>
<td>24,722</td>
<td>$482,770,866</td>
</tr>
</tbody>
</table>

Source: USHE, Office of Institutional Research and Analysis

The educational benefits to each individual are significant. The collective benefit of higher education to society as a whole is even greater. In simple economic terms, increased education means an increased standard of living for every person in the state of Utah.
The previous portion of the document, the Case Statement, focuses on WHY Utah must increase the number of its degree and certificate holders if it is going to be prosperous in the 21st century’s knowledge-based economy. This next section, the Action Plan, proposes different recommendations about HOW Utah may attain its “big goal” through strategic changes to state policy and the higher education infrastructure, practices, and culture.

The Regents expect that each USHE institution will engage strategies to increase its level of participation, completion, and economic innovation according to its distinctive mission. As these institutional strategies are developed or refined they will be added to the appendix of this document. Utah’s private institutions are also invited to share their strategies. It is hoped that all higher education institutions in the state—public and private—will do their part and be committed to helping Utah attain its “big goal.”
Higher education has historically operated as a self-contained system providing education to those students who were found eligible and ready to participate in higher education. Students were kept within an institution for two or four years where they were educated, taught critical thinking and communication skills, and prepared to succeed in society. This historic model needs to shift to an integrated model where educational entities are connected vertically (from pre-school to life-long learning) and horizontally (across institutions, job providers and support organizations.)

Using this integrated approach, we find the pipeline leading from K-12 into higher education institutions needs to be expanded in the number and percentage of students prepared to succeed and to persist in attaining their degree. Further, institutions need to do a better job in helping students complete their education. Given a horizontally integrated system, academic training needs to be portable in that students are able to move freely from one institution to another without losing progress towards their degree or certificate. Further, since education is not an end in itself, educational outcomes should be increasingly tied to career success.

The action plan focuses on five areas:

1. Expand the pipeline of college/career-ready and college-inclined high school graduates.
2. Stop leakages in the higher education pipeline by increasing the number who persist and complete their education once they enter college.
3. Expand the ability of colleges and universities to provide quality opportunities for more students.
4. Transform the way higher education meets the needs of the 21st Century student through efficiencies and technology.
5. Better leverage higher education in growing Utah’s economy as a way to extend prosperity and grow the tax base of the state.

Within each of these five areas (discussed briefly below) there is a short list of recommendations that should be considered as proposed strategies to help Utah reach its big goal.
1. **Expand the pipeline of college/career-ready and college inclined high school graduates.**

A. **Establish clear college and workforce-readiness standards.**

Utah students have been given mixed messages over the years about what is needed for success in life. High school graduation requirements, college admission standards, and college readiness standards are all different. Thus, the first recommendations are to make a clear statement about what our sector of this integrated system expects of students.

- **Recommendation 1.** The State Board of Regents adopt clearly written standards defining college/workforce readiness and admission policies so parents and students know what is expected and needed to succeed in postsecondary education.

- **Recommendation 2.** The State Board of Regents define the specific admission requirements for each higher education institution based on their role and mission. These admission requirements should be communicated early and often to parents and students about what is expected in college so that time in high school will be used well to prepare adequately for college.

- **Recommendation 3.** Align general education requirements for higher education with career ready skills identified by business as critical to being successful employees, and include this “certification” in a student’s transcript.

The Utah State Board of Education has adopted the K-12 Common Core Standards advocated by many national business, civic, and educational groups. The K-12 Common Core Standards eliminate the dual track approach of vocational compared to academic education in the K-16 System. The State Board of Regents is strongly supportive of implementation of the K-12 Common Core. Higher Education’s task is now to provide a seamless integration of the new standards with higher education’s general education requirement.
The K-12 Common Core leads to numerous major changes in higher education and its interface with the K-12 system. The most significant change is to rely less on “seat time” to determine credits earned and more on learning outcomes and competency testing. The following recommendations provide an agenda for higher education in coming years.

- **Recommendation 4.** Higher education should build upon the K-12 Common Core Standards by increasing the use of educational outcomes instead of seat time to determine credit, particularly for general education requirements. Following general education, this effort should shift to a focus on mathematics and other STEM (Science, Technology, Engineering and Mathematics) related majors.

- **Recommendation 5.** Concurrent Enrollment be changed by (a) reducing the number of courses to fit general education outcomes built upon the K-12 common core standards, (b) use on-line classes as much as possible, and (c) use open courseware material instead of textbooks.

Moving to learning outcomes instead of “seat time” will require a more robust system of testing and evaluation. A national consortium of states is presently working on reconstructing the testing program in K-12. Higher Education needs to align what it does with their efforts, particularly in determine college admission and placement.

- **Recommendation 6.** Assessment programs for higher education admission and placement in Utah should be compatible with the K-12 Common Core State Standards. Campuses should use the K-12 Common Core State Standards as the basis for full admission to our colleges and universities. Colleges of education should prepare new teachers to teach to the Common Core standards.

- **Recommendation 7.** While the national testing program is reconstructed, Higher education should work with K-12 partners to implement the EXPLORE tests in the 8th and 9th grades, the PLAN test for the 10th grade, and the ACT test for all students in the 11th grade.
B. Strengthen and expand collaboration between K-12 and higher education.

If the goal is to create an integrated “seamless system” of education in Utah, strong mechanisms need to be built that facilitate collaboration and partnership. The basics of this system are in place: unity on the K-12 Common Core Standards, use of learning outcomes in general education, and combining academic and vocational preparation.

- **Recommendation 8.** Strengthen and expand the Utah K-16 Alliance and create regional alliances throughout the state. The agenda for state and regional alliances should be to work on (a) seamless articulation for CTE among USHE institutions, UCAT, and the high schools, based on competencies and industry-based certification standards of accredited higher education programs, (b) electronic high school transcripts, SEOP (Student Education/Occupation Plan) information, and electronic portfolios for counseling and admission to Utah colleges and universities, (c) feedback to school districts on higher education success of their graduates, and (d) more robust development of career pathways.

C. Increase Participation Rates

As the previous text points out, Utah is decreasing it the share of its population that is attending and graduating from post secondary education institutions. Our numbers are particularly negative among the Hispanic population, women, and low-income residents. We also must attract many adults who have some postsecondary education, but are without degrees or certificates for high paying jobs.

A particular challenge in Utah is the lack of a system of locally financed community colleges. The recent national advocacy of President Obama for citizens to enroll in community colleges where tuition is extremely low, does not apply to Utah, where tuition for associate degrees are similar to tuition for baccalaureate degrees.

College recruiters and civic leaders are unified that one reason for the decline in participation is the cost of higher education. Tuition costs have increased significantly over recent years as state appropriations per student have decreased. While tuition is significantly lower than other states and federal aid has increased, Utah students have considerable “unmet” financial need. Debt levels
are also significant ($13,000 per graduating student). Utah presently provides $66 per undergraduate FTE student in need-based financial aid, which is among the lowest amounts of all the states. By comparison, the median amount is $347 and the highest amount is $1,021 in New Jersey.64

The first set of recommendations address the financial access issue.

- **Recommendation 9.** Increase financial support for low-income students who would not otherwise be able to attend college by adequately financing, re-purposing, re-energizing, and re-naming the Utah Centennial Opportunity Program for Education (UCOPE) to provide greater student support through need-based financial aid (including work study).

- **Recommendation 10.** Expand out-reach and marketing of the Utah Educational Savings Plan (UESP) to encourage Utahns to save for higher education.

- **Recommendation 11.** Establish a student loan program for part-time students through UHEAA to help adults who can enroll in only one or two classes a semester.

Recruiting and retaining non-traditional students (adults) is a critical element of meeting our workforce needs. Over the past year, a robust on-line system for advising students about career options has been built by a coalition of state groups, lead by our agency, the Utah Higher Education Assistance Authority. As we move ahead, increased partnering with the Department of Workforce Services will be important in urging more people to return to postsecondary education. We recommend the following actions be taken to assist in helping more adults earn their degrees.

- **Recommendation 12.** Strengthen the recruitment, outreach, advising and career planning activities of USHE institutions, targeted at adult students, by integrating UtahFutures.org into their services.

- **Recommendation 13.** Urge our colleges and universities to provide specialized advisors to help working adults, offer classes and full programs during evenings and weekends, and create specific curriculum for non-traditional students that builds practical skills.
• **Recommendation 14.** Increase opportunities for adults to translate life skills and experiences into college credit through CLEP tests or gain experiential credit. A state-wide system should be explored to facilitate this process.

Expanding participation levels will require the growth and success of alternatives to traditional college experiences. Thus, USHE schools will need to partner with private colleges, applied technology colleges, and early college high schools.

• **Recommendation 15.** Increase the number of Early College High Schools sponsored by higher educational institutions by creating a funding stream to support the supervision of early college high schools.

• **Recommendation 16.** Strengthen articulation agreements between public and private colleges that meet regional accreditation standards.

2. **Stop leakages in the higher education pipeline by increasing the number who persist and complete their education once they enter college.**

Our big goal is to improve the education level of our citizens as measured by having 66% of the public having some form of postsecondary education credential by the 2020. Our estimates are that it will require approximately 109,000 new students to enroll if our present rate of college retention does not improve, but if it were to improve by as much as 8%, only 71,000 new students would be required. Currently, about 20% of Utah citizens have some college education but have stopped short of a degree. The most efficient way to meet our goal is to improve college completion rates.

The focus on retention is receiving national attention. Utah has joined “Complete College America,” which is a coalition of 23 states working collaboratively to improve retention. The National Governor’s Association, the Gates Foundation and the Lumina Foundation have initiatives underway to improve retention. It is estimated that the low retention rates cost Utah tax payers nearly $24.5 million a year.65
Measuring retention and persistence towards a degree is a special challenge in Utah. The average Utah student attends 1.8 colleges before receiving an associate’s degree. At some of our campuses, nearly 20% of the students leave after one year to fulfill a church mission. Thus, adequately tracking and measuring the success of our students is a high priority.

Improving retention has been a major issue for the Regents and for each campus over the past decade. Much has been accomplished. However, the following recommendations will advance that agenda by aligning funding with completion, better measurement and goal setting, improvements in remedial education and improving the college experience.

A. Support new funding mechanisms that tie institutional funding to educational outcomes.

- **Recommendation 17.** Support a “Mission-Based Funding” mechanism for USHE institutions that provides money for measurable products. New accountability measures would connect funding to institutions’ missions based on growth in course and degree completion, as well as research that contributes to the economy, quality and regional economic development activities, and job placement, rather than on third-week census numbers.

- **Recommendation 18.** Create an innovation fund, focusing on collaboration, consisting of state and private money (foundations) to encourage creative ways to retain students.

B. Set statewide completion goals and uniformly measure and report progress and success.

- **Recommendation 19.** Using data from the Utah Data Alliance, require each institution to report its retention and completion performance and goals to the Regents annually. These reports would then be compiled and distributed to the Regents, Governor, and Legislature by the Commissioner’s Office.

C. Transform remediation by reducing need and focusing efforts and resources.

- **Recommendation 20.** Institutions should support new curriculum and individualized advising, mentoring and delivery options for remedial education that builds practical skills,
including free on-line remedial education tools and courses. USHE schools should work
with high schools, applied technology centers, and applied technology colleges to provide
multiple options for students seeking remediation assistance.

- **Recommendation 21.** Using robust remediation-specific data, the Board of Regents and
  State Board of Education should establish mutual goals for reducing the number of
  students requiring remedial education and report progress annually. The report will
  provide policy makers with more specific remedial/developmental education data
  regarding the classification of remedial students (i.e., subject matter, year in college, high
  school, etc.), cost, and institutional strategies to provide flexible remediation.

- **Recommendation 22.** Institutions should provide annual reports to K-12 schools as to the
  level of remediation needed by their students.

D. **Improve retention through on-campus policies and programs for traditional students.**

- **Recommendation 23.** Regents should challenge each institution to adopt policies such as
  mandatory attendance for freshman level classes, mid-term grading feedback, and first
  year college experience classes, all of which are proven methods of improving traditional
  college student retention.

3. **Expand the ability of colleges and universities to provide quality opportunities for more
   students.**

   In order to meet Utah’s big goal in the next ten years, both the physical and virtual capacity of
   Utah’s higher education system will need to be increased significantly. The exact size of this
   expansion depends on numerous variables including the percentage of students taking on-line
   classes, the rate students who persist from one year to the next, and the flexibility of schools in
   changing the time of course offerings and the adoption of innovate delivery systems.

   Growing the system of higher education appears at the onset to be a very challenging task. Utah is
   faced with little or no growth in the state budget. The state has not funded enrollment growth in
many years. Recent enrollments have surged 23% over the past three years. Many schools are near capacity.

Utah doesn’t have the option of not facilitating an expansion in the higher education system. Our economy will increasing demand highly trained professionals. If we do not deliver the needed “talent force,” we will lose out to other states. Thus, the recommendations in this section begin with how to achieve greater efficiencies, but also how to grow the enterprise to meet state needs. The issue of the impact of technology on higher education is discussed in the transformation section.

A. Greater Efficiencies (see transformation section for technology discussion)

- **Recommendation 24.** Increase use of “mixed delivery” courses (internet and seat time) on campus to a free up seats and classrooms.

- **Recommendation 25.** Urge the institutions to develop new strategies to encourage more efficient time to graduation with the goal of completing a bachelor’s degree in 3 years by having more evening, weekend, summer, and on-line classes.

- **Recommendation 26.** The state should provide an option whereby students may choose to use the 12th grade as their first year of college through early college programs funded by the state. Courses would be full college courses (not concurrent) and offered in the high school or at a nearby campus site.

B. Expanded Capacity

Efficiencies alone will not be sufficient to meet the demands for higher education services over the coming decade. Assuming a 20% increase in efficiencies, Utah will still need to provide the infrastructure for an additional 50,000 to 70,000 or more students.

- **Recommendation 27.** The Board of Regents approve a clear statement of the role to be played by each USHE institution in meeting the goal of 66%. A concise statement of how
the USHE institutions will meet the purpose of this recommendation according to its distinctive mission will be included in the appendix.

- **Recommendation 28.** The legislature approve monies for land acquisition and buildings for branch campus development in underserved and high growth parts of the state per a more detailed state plan approved by the Board of Regents. “Land banking” should be done in the near future to benefit from present land prices.

C. Expand the community college function throughout Utah.

Utah does not have a state system of community colleges where access is enhanced by local taxes. Presently, we ask Weber State University, Utah Valley University, Dixie State College, and Utah State University to also provide community college services and academic programs. The Georgetown University data suggests that Utah needs to increase the number of citizens possessing an associate’s degree or certification in a specific area. Thus, building out a community network covering the state is critical to our future.

- **Recommendation 29.** Expand the number of students accessing community colleges through the creation of community colleges or community college centers (branches) within regional state universities in order to ensure state-wide coverage of community college services including:
  - Open access,
  - Enhanced advising and student support services,
  - More flexible scheduling,
  - Clear articulation of 2 + 2 seamless degree pathways, and
  - Articulation support with applied technology colleges.

D. Fund Enrollment Growth

Utah has not been able to fund recent increases in enrollment on our campuses. Enrollment has grown by 23% over the past three years while funds have been reduced by 12%. USHE institutions need to see an increase in per student funding in order to meet future needs.
• **Recommendation 30.** Seek legislative funding of enrollment growth. Funding should be based on completion of courses rather than third week enrollment. Funding should also be directly tied to the institutional mission of the institution so that research is funded at research institutions and enrollment growth funded at non-research intensive institutions.

• **Recommendation 31.** Increase funding for more faculty positions and faculty salaries in order to retain key faculty and expand the number of sections. This will prevent soft or hard enrollment caps and bottle-neck courses.

E. Clarify the Utah College of Applied Technology Interaction with Utah System of Higher Education.

The effort required to meet Utah’s “big goal” presents an opportunity for USHE and UCAT institutions to strengthen and clarify their working relationships. The legislative action that established UCAT clearly defined the difference between and roles of credit-granting (USHE) and non-credit (UCAT), certificate-awarding institutions. Both USHE and UCAT institutions will play a significant role in equipping Utah’s workforce with the technical training and skills requisite for success in the new economy.

In order to meet the goal of 66%, both applied technology education (ATE) schools and ATE programs in the USHE and UCAT institutions will need to grow significantly. Thus, the Regents support UCAT’s current role and encourage increased collaboration between USHE and UCAT institutions. The collaboration will need to include high schools, the Governor’s Office of Economic Development and the Department of Workforce services as the state identifies the unmet need for and definition of “certificates” for purposes of federal and state reporting.

• **Recommendation 32.** A state-level system of translating competencies into college credit be created to enhance articulation efforts between UCAT campuses and USHE institutions.

• **Recommendation 33.** In the future, an application process be developed that enables UCAT campuses, at their option, to petition the Board of Regents to affiliate more closely or even join the system to provide for-credit programs and associate degrees.
4. **Transform the way higher education meets the needs of the 21st Century student through efficiencies and technology.**

Clearly, information technology is radically changing our students’ learning styles, as well as institutions’ ability to deliver education differently and to reduce costs for providing educational programming. It is also clear that technology does not replace the “soft skills” that business is looking for in their future employees.

Many policy leaders throughout the country foresee that higher education will be dramatically changed by technology. For example, the role of teacher is shifting from a provider of information to facilitator of connected learning. Additionally, technology is looked to as the means of reducing the cost of education by using open source instructional materials as well as reducing demand for more buildings through leveraging its capabilities. There is little doubt that we are on the verge of a major information technology revolution. Whether this technology is largely disruptive, as some believe it may be, or advantageous depends to great measure on our foresight, planning, and choices.

To explore various technology options, the Regents have asked a group of instructional information technology experts from the campuses to share their thoughts and to provide recommendations. Their deliberations are included in the following recommendations.

- **Recommendation 34.** The Board of Regents should create, with state funding, an on-line university degree that would combine on-line courses offered by USHE institutions and other low-cost providers throughout the world with the goal of reducing the cost of a college degree. The initial courses should be in general education and STEM related classes. Emphasis could also be placed on career pathway courses needed for key economic clusters. Open courseware should be part of the requirements in building the classes.

- **Recommendation 35.** Utah should study the possibility of entering into an agreement with the Western Governors University to provide educational services to adult populations interested in earning degrees in specific high-need fields. This affiliation would be similar, but not identical, to the agreement between WGU and the State of Indiana.
• **Recommendation 36.** Working with faculty leaders, the Board of Regents should develop new faculty workload policies that reward the development of quality courses that combine the use of teaching assistants, technology, and on-line offerings in consultation with the faculty.

• **Recommendation 37.** Take advantage of new technologies to implement “open courseware” where feasible for students. Strive to have all concurrent enrollment classes offered with open access material at little or no cost.

5. **Better leverage higher education in growing Utah’s economy as a way to extend prosperity and grow the tax base of the state.**

Personal income and educational attainment are highly correlated as is economic development—attracting and creating high-paying jobs that require higher education degrees and skills. Further, higher education attainment reduces the need for social services, as graduates are much more likely to be self-sustaining adults. These facts should be recognized by fostering even closer ties between economic growth and our higher education system.

• **Recommendation 38.** The state should create and market the “Mountain Research Corridor” partnership among U. of U., U.S.U., and B.Y.U. (where appropriate) to leverage the research done at the Utah’s research institutions to promote economic growth in Utah.

• **Recommendation 39.** The state should dramatically increase the funding for the successful USTAR program to facilitate research and entrepreneurship on college campuses. Part of the funds would go to expanding USTAR throughout the state and to expand entrepreneurial education programs at USHE institutions.

• **Recommendation 40.** The state should expand the Utah Cluster Acceleration Partnership (UCAP) initiative to all institutions and to all major economic clusters. “Talent clusters” should be created among education institutions (i.e. digital media production, performing arts, medical technology, etc.)
• **Recommendation 41.** The state should provide tuition assistance for students enrolled in critical careers for the state’s economic growth as identified by the Dept. of Workforces and the Governor’s Office of Economic Development.

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**Funding Issues**

We have not attempted to put a price tag on the various recommendations being made at the present time. The price clearly varies depending on which recommendations are adopted and which recommendations, if adopted, would be phased in over time.

To meet the “Big Goal” of 66% by 2020, Utah will need to invest in its human capital. If not, Utah will not attain the quality of life most people desire for themselves and their families. Our institutions of higher education estimate that if the coming decade is similar to the previous decade, we will be able to sustain growth of somewhere between 33% and 49% of the total needed.

Additional funds will be needed to cover the gap. However, we know that we can pick up some of difference by greater efficiencies, greater use of on-line education, and asking the private colleges to partners with us. In the long run, these additional costs will be paid for by economic growth. However, over the next decade, the state will need to find additional revenue. The following recommendations highlight three approaches to securing additional revenue.

• **Recommendation 42.** Seek legislative approval for a local voter-approved tax to provide tuition credit for students within a county (or taxing district) to underwrite and dramatically lower the price of their tuition for the first two years of college.

• **Recommendation 43.** Seek funding in support of targeted strategies at an institutional and statewide level from foundations and corporations and from state and federal grants.

• **Recommendation 44.** Through the Friends of Utah Higher Education Coalition collaboratively advocate for and work with the Governor and legislature to increase funding for higher education initiatives over time as state revenues increase.
If Utah is to meet the economic need for more highly educated individuals by the year 2020, higher education will need to significantly increase the number of graduates with degrees and certificates that align with workforce demands and opportunities. In addition, the state will need to adequately support a robust research and technology transfer system at the state’s research institutions to continue to create high-paying jobs. These goals can only be accomplished by maintaining quality. The Utah System of Higher Education and each higher education institution in Utah will play a major role in attaining this positive future. The following is a brief summary highlighting institutional roles in meeting the goal established by the State Board of Regents during the coming decade.

The Utah System of Higher Education (USHE) provides the state with oversight of its public institutions, student loan program, and college savings plan as well as administering a limited set of programs and initiatives. Development and implementation of a living Master Plan and a coherent set of state policies to achieve the goal of a better-educated population will be USHE’s primary task over the coming years.

Utah is fortunate to have eight quality higher education institutions. USHE values the diversity options and opportunities to be found in its institutions. Students may choose where they wish to study, from research and regional universities to comprehensive community colleges, based on their individual learning styles, needs, expectations, and circumstances.

Together, Utah Higher Education Assistance Authority (UHEAA) and Utah Educational Savings Plan (UESP) provide the means for all Utahns to save, plan, and pay for college. We expect UHEAA to be a major servicer of student loans for the federal government and is exploring loan and other financial aid options for part–time students. The Regents support the move of UESP to play a leadership role in helping to define, improve, and implement state higher education policy issues.

In support of the Regents’ master–planning role, and to facilitate enrollment growth and statewide access, USHE will move to meet their present goals to increase participation (access), completion (retention), and economic development. Additionally, the Regents look to expand economic development initiatives such as Utah Science Technology and Research (USTAR) and Utah Cluster Acceleration Partnership (UCAP).

The Commissioner’s office will need to be given the necessary tools to provide a coordinated approach to meeting the state’s plan for a more highly educated citizenry. These tools include funding for innovation grants, increasing “on–line” educational opportunities, formula funding changes, resources to incentivize and hold institutions accountable, and money to fund enrollment and research changes.
The University of Utah is the state’s “flagship university” serving as a premier research institution enhancing the state’s reputation for quality in higher education instruction, research, and innovation; especially at the graduate level. The focus of the institution is to enhance its distinctive mission based funding that enhances its ability to produce quality instruction and research. Enrollment growth at the university will be modest and primarily in its graduate programs.

The Regents look to the University of Utah to be a major research institution that contributes to the economic base of Utah through innovation, technology transfer and commercialization. It is expected to be a leader in the success and expansion of the USTAR initiative. State needs will drive the limited number of targeted academic areas that contribute to the research, innovation and commercialization goals. As a research university the U. of Utah not only teaches knowledge, creates new knowledge, but also nurtures those who will be the creators of new knowledge and companies.

The University of Utah will also be the primary deliverer of trained professionals in medicine, pharmacy, law, and engineering. The medical school and hospital and clinics will provide leadership in promoting the health of Utah citizens.

University of Utah Mission Statement

The mission of the University of Utah is to serve the people of Utah and the world through the discovery, creation and application of knowledge; through the dissemination of knowledge by teaching, publication, artistic presentation and technology transfer; and through community engagement. As a preeminent research and teaching university with national and global reach, the University cultivates an academic environment in which the highest standards of intellectual integrity and scholarship are practiced. Students at the University learn from and collaborate with faculty who are at the forefront of their disciplines. The University faculty and staff are committed to helping students excel. We zealously preserve academic freedom, promote diversity and equal opportunity, and respect individual beliefs. We advance rigorous interdisciplinary inquiry, international involvement, and social responsibility. (Approved 2006)
As the state’s “land grant university,” Utah State University is a leader in providing research, public service and education to meet needs in all corners of Utah. In addition to its extension services, the University also plays a vital role in providing access to higher education opportunities through its community college role at its regional campuses and in areas of the state without easy access to higher education. The public service mission is exemplified by the university’s land grant history and cooperative extension services which provide the latest practical research results to every county of the state and adapt to serve urban as well as rural communities.

Enrollments are expected to increase at a moderate rate at USU overall but at a high rate in currently underserved regions of the state. Regents support an aggressive growth strategy at regional campuses of USU—Brigham City, College of Eastern Utah, Tooele and the Uintah basin. The growth in regional service is likely to be augmented by expanded distance education capability.

USU is expected to build upon its research capability with an emphasis on aerospace, agriculture, life sciences, energy and engineering. Partnering with the University of Utah, USU should continue to be a major player in the USTAR initiative and technology transfer endeavors.
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 residential campus setting. In addition to providing general education courses, the college provides career and technical education, primarily at its Richfield campus.

Snow is expected to grow at a moderate rate over the coming decade. Because of its setting in a more economically challenged, rural location, tuition and residential housing costs should remain low. Student opportunities at the college will be limited by academic degree options. The Regents may consider expanding the number and type of degrees to be offered where the expansion promotes academic quality at the College, serves needs in the College’s primary service region, or helps accommodate increased demand throughout the state for access to higher education.

Snow College Mission Statement

The mission of Snow College is to educate students, inspire them to love learning, and lead them to serve others. Snow College achieves this mission through a constant pursuit of excellence in teaching; through a nurturing, positive learning environment; and through people who demonstrate a love for learning and service to humanity. (Approved 2004)
As the state’s first “comprehensive regional state university” that also retains a community college mission, Weber State is a state leader in serving as an educational, cultural and economic center for its region.

Weber State is expected to see significant increased demand for educational offerings over the coming decade. To facilitate the growth, expansion of the Davis Campus, greater use of on-line education, and funding will be required. Additional master’s level degrees will be needed to meet a growing population and economic base.

Weber will continue to lead the way in embedding associate degree programs within a regional university. In this role, Regents look to Weber State to provide leadership in defining the model of hosting a community college within a regional state university.

Regents also look to Weber to provide service programs and leadership in assisting regional economic development, particularly as it relates to talent development. Community engagement is viewed as a key element in the future development of WSU.

Weber State University Mission Statement

Weber State University offers associate’s, baccalaureate, and master’s degree programs in a broad variety of liberal arts, sciences, technical and professional fields. The university provides excellent educational experiences for its students through extensive personal contact among faculty, staff and students in and out of the classroom. To accomplish its mission, the university, in partnership with the broader community, engages in research, artistic expression, public service, economic development, and community based learning experiences in an environment that encourages freedom of expression while valuing diversity. (Approved 2007)
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 concerns.

Regents will continue to value quality education at SUU within its distinctive mission over dramatic enrollment growth; thus funding for SUU should be mission focused in assuring high quality graduates and engaged citizens. A moderate growth rate is expected to be based on SUU maintaining its present share of the Utah population.

As a quality liberal arts and sciences university, SUU will continue to be a prime destination for students interested in educational experiences typical of a private university with the affordability of a public higher educational institution with a particular focus on high quality programs in the arts, sciences, pre-professional, professional and graduate fields.

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**Established 1897**

**Fall 2010 Headcount Enrollment: 8,024**  
**Fall 2010 FTE Enrollment: 6,609**

**Southern Utah University Mission Statement**

Southern Utah University is a comprehensive regional institution offering graduate, baccalaureate, associate’s, and technical programs. SUU is committed to providing an excellent education through a diverse, dynamic and personalized learning environment. The university educates students to be critical thinkers, effective communicators, lifelong learners and individuals who demonstrate integrity and empathy as they pursue their lives’ ambitions. (Approved 2005)
Dixie State College of Utah (DSC) has grown dramatically in the past few years, particularly since adding a number of new baccalaureate degrees and with demographic changes in southwestern Utah and bordering states. It is rapidly changing its mission from a “state college” with a limited set of baccalaureate degrees to a more comprehensive institution.

Regents support this transition from a state college to a comprehensive regional state university over a period of time, based on regional demand, academic readiness, and state funding. To achieve this goal, Dixie will need significant financial support to add the faculty and academic infrastructure necessary to have the quality consistent with other regional state universities.

Dixie is expected to remain the regional “community college” as it adds baccalaureate degrees to its portfolio. As a regional institution, Dixie is also expected to place a premium on workforce development, allied health professions, and economic partnerships. As Dixie’s mission expands, the campus will provide students with a more comprehensive set of college experiences.

**Dixie State College of Utah Mission Statement**

Dixie State College of Utah Mission Statement: Dixie State College of Utah strives to help students to define, shape and achieve educational and life goals. It is dedicated to providing personalized and excellent teaching in a learning environment where all students can become passionate about their individual educational endeavors. DSC is a publicly supported institution—authorized by the Utah State Board of Regents—with two independent tiers. DSC offers associate’s degrees and certificate programs that meet the needs of students, the community and the state. The College also offers baccalaureate programs in high demand areas and in core or foundational areas consistent with comprehensive four-year colleges. Dixie State College enhances its campus climate by promoting cultural and demographic diversity, and by inviting students to participate in its open-door, postsecondary educational programs. (Approved 2005)
As Utah’s newest comprehensive regional university, UVU will offer a broad range of bachelor’s degrees, a select set of masters degrees, and continue to serve their region with a comprehensive set of associate degrees, certificates and community college services for a rapidly increasing number of students. Regents expect UVU to be a leader in providing engaged learning opportunities and innovations in preserving a community college function and profile within a quality state university.

Recognizing the current and projected growth of the Utah Valley, the Regents expect and support UVU’s move to meet regional educational demands. Along with Salt Lake Community College, Weber State University, and Dixie State College, UVU will be asked to pick up the bulk of state enrollment increases in the year ahead. To accommodate this growth, while still providing university quality programming, UVU will need to continue to adopt efficiencies through more distance education (with a special focus on hybrid—part online, part in class—courses) and year-round, off-peak hour scheduling. They will also need additional facilities on their Orem campus, several satellite locations, improved tax fund support for existing students, and growth funding for new students.

In its role as a “community engaged” university it will develop and maintain productive partnerships with government, civic associations and private industry. The institution will continue to expand this commitment, as well as provide leadership for regional economic development, supplying, among other things, a well-trained work force.

Established 1941

Fall 2010 Headcount Enrollment: 32,670  
Fall 2010 FTE Enrollment: 21,825

Utah Valley University
Mission Statement

Utah Valley University is a teaching institution which provides opportunity, promotes student success, and meets regional educational needs. UVU builds on a foundation of substantive scholarly and creative work to foster engaged learning. The university prepares professionally competent people of integrity who, as life-long learners and leaders, serve as stewards of a globally interdependent community. (Approved 2007)
As the Utah’s largest institution of higher education and it’s only two-year “comprehensive community college” that offers a full range of academic programs and economic development opportunities for the Salt Lake Valley, Salt Lake Community College (SLCC) must play an increasingly important role in Utah. The institution will need to continue to provide open-access admissions, a comprehensive set of academic programs (associate degrees, certificates, career and technical education, transfer education and workforce development), community-based education programming, and student support services.

Salt Lake Community College is expected to grow dramatically over the coming years. Growth will take place through increased partnerships with other USHE institutions, with industry and community, and within the college’s School of Applied Technology to achieve goals of increased college completion in skill-based education. To facilitate this growth, SLCC will need additional sites for delivering education, expanded use of internet-delivered instruction, and funding per student. Educational programming will also increase due to student and industry demand.

Regents expect Salt Lake Community College to be a leader in the translation of occupational competencies into college credit. The Regents also expect SLCC to continue to lead efforts in small business innovation, growth, and sustainability through training and access to a business development infrastructure. This leadership will help support and complement technology commercialization efforts throughout Utah.

Key to Salt Lake Community College’s success will be adequate state funding to maintain the open access mission of the institution.
CONCLUSION

Case Statement

- According to Lumina Foundation researchers, “The United States has long been the world’s most prosperous and successful nation, in part because our people have typically been the world’s best educated.” The same can be said historically for the State of Utah. However, in the last two decades Utah and the nation have lost their advantage.

- According to the Georgetown University Center on Education and the Workforce, 66% of all jobs in Utah by 2018 will require postsecondary education. No longer can a person expect to enter into or remain a part of the middle class with only a high school diploma or less.

- Currently, only 39% of Utahns hold an associate’s degree or higher. This will not be sufficient for Utah to develop a robust economy in a global marketplace, nor for Utah’s citizens to prosper individually or collectively. The long term prosperity of our state and nation are at risk if deliberate actions are not taken.

- To meet Utah’s education and workforce needs, the State Board of Regents and Commissioner of Higher Education have set a “big goal” for Utah: to have 66% of Utahns—men and women age 25 to 64—with a postsecondary degree or certificate by the year 2020; specifically, to have 55% of Utah’s workforce with an associate’s degree or higher and 11% with a postsecondary certificate that leads to a livable wage.

- To reach this goal with the next ten year, aggressive action must be taken. The State Board of Regents calls upon all institutions of higher education, public and private, profit and not-for-profit, to play a significant role, with the USHE institutions taking the lead. USHE institutions will have to enroll 109,000 more students over the next decade.

- The State Board of Regents has identified the following three strategic priorities: to increase the rate of student participation, to increase the rate of student completion, and to increase the level of economic innovation. To this end, they have set fort an action plan as a focus for public dialog among the many stakeholders in Utah’s higher education.

- The attainment of Utah’s “big goal” will require significant investment of effort, collaboration, and financial resources by the Utah Legislature, the business community, the general public, the Utah System of Higher Education, and all other stakeholders in the state of Utah.
Action Plan

- Education in Utah needs to shift to an integrated model where educational entities are connected vertically (from pre-school to life-long learning) and horizontally (across institutions, job providers and support organizations.)

- The pipeline leading from K-12 into higher education institutions needs to be expanded in the number and percentage of students prepared to succeed and to persist in attaining their degree. Further, institutions need to do a better job in helping students complete their education.

- The action plan presents recommendations in five areas that should be considered as proposed strategies to help Utah reach its big goal:
  - Expand the pipeline of college/career-ready and college-inclined high school graduates.
  - Stop leakages in the higher education pipeline by increasing the number who persist and complete their education once they enter college.
  - Expand the ability of colleges and universities to provide quality opportunities for more students.
  - Transform higher education in order to provide quality opportunities for more students and increase efficiencies.
  - Better leverage higher education in growing Utah’s economy as a way to extend prosperity and grow the tax base of the state.

- Each institution within the Utah System of Higher Education will play a major role in carrying out this plan and helping Utah attain a positive future.

- To meet the “Big Goal” of 66% by 2020, Utah will need to invest in its human capital. If not, Utah will not attain the quality of life most people desire for themselves and family. Investment in education should be viewed as an asset synonymous with economic development.
End Notes


3 The Georgetown University Center on Education and the Workforce, *Help Wanted, State-level Analysis – Utah*


8 Utah’s annual poverty level for a family of four is $27,564 based on Utah DWS Food stamp qualification. Utah Department of Workforce Services, http://jobs.utah.gov/customereducation/services/foodstamps/qualify.html (downloaded 6/9/2010)

99 USHE, Office of Institutional Research and Analysis: US Communities Survey, 2008 – Utah. This source groups together all those with some college education, including those with associate’s degrees, those with certificates, and those who dropped out of higher education. The gap between this group and those with only a high school education is likely small because the data set is so broad.

10 USHE, Office of Institutional Research and Analysis: US Communities Survey, 2008 – Utah


12 USHE, Office of Institutional Research and Analysis


16 Lumina Foundation for Education, *A Stronger Nation through Higher Education*


18 College Board, Advocacy and Policy Center, *The College Completion Agenda*, 2010


21 U.S. Census Bureau, 2006 American Community Survey (ACS)


23 National Governors’ Association, *Complete to Compete*, http://www.subnet.nga/ci/1011/


25 Lumina Foundation for Education, http://www.luminafoundation.org. The mission of Lumina Foundation for Education is to expand access and success in education beyond high school, particularly among adults, first-generation college going students, low-income students and students of color. Lumina defines “high-quality degrees and credentials” as “degrees and certificates that have well-defined and transparent learning outcomes which provide clear pathways to further education and employment.”

26 A higher education certificate is defined as any quality certificate that requires at least one year of postsecondary education (900 cumulative membership hours)
27 Utah System of Higher Education (USHE), Office of Institutional Research and Analysis, Fall Headcount 2009

28 USHE, Office of Institutional Research and Analysis: Integrated Postsecondary Education Data System (IPEDS)

29 USHE, Office of Institutional Research and Analysis, Enrollment Projections August 2009: Governor’s Office of Planning and Budget, Utah Population Estimates; Lumina Foundation; US Communities Survey, 2008 – Utah Educational Attainment – Utah


32 USHE, Office of Institutional Research and Analysis: Integrated Postsecondary Education Data System (IPEDS), Lumina Foundation, and Utah’s Governor’s Office of Planning and Budget (GOPB)

33 USHE, Office of Institutional Research and Analysis, Utah Population Estimates: Governor’s Office of Planning and Budget; Lumina Foundation; US Communities Survey, 2008 – Utah Educational Attainment – Utah; NCES/IPEDS Completions Survey 2009 – Utah


36 USHE, Office of Institutional Research and Analysis (more research may be needed in this area)

37 National Center for Public Policy and Higher Education, 2008 Measuring Up,

38 ACT, Resources for Education and Workplace Success, QualityCore, http://www.act.org/qualitycore/


40 College Board, The College Completion Agenda, p. 28


42 Postsecondary Education Opportunity #188, February 2008
National Center for Public Policy and Higher Education, 2008 Measuring Up


Governor’s Office of Planning and Budget, Population Estimates


Pamela S. Perlich, PhD; Governor’s Education Excellence Commissioner, April 21, 2010; Utah’s Demographic Transformation: A View into the Future.


Utah State Office of Education, Taskforce Report, 2010


Utah Women and Education Project, Utah Valley University, Taskforce Report, 2010


College Board, Education Pays, 2010


The Georgetown University Center on Education and the Workforce, Help Wanted

Occupational Supply and Demand System (OSDS), Georgia Career Information Center, Georgia State University for the U. S. Department of Labor, 2010, http://www.occupysupplydemand.org/
62 National Center for Higher Education Management Systems (NCHEMS), Higher Education and the Future of Utah, January 28, 2010 (presentation by Dennis Jones, President of NCHMES)

