Innovate *to* Compete *in the 21st Century*

Anticipating the Demand for Colorado Community College Services in 2020

Final Report
October, 2007

McREL

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About McREL

Mid-continent Research for Education and Learning (McREL) is a nonprofit education and research organization based in Denver, Colorado. For more than 40 years, McREL has been dedicated to helping educators use research to improve student achievement. As a national leader in research, school improvement, standards-based education, balanced leadership, professional development, and scenario planning, our highly respected education researchers and experts have provided services to educators in all 50 states and 18 foreign countries. Our website (www.mcrel.org) offers hundreds of reports, tools, guides, and services designed to improve school and student performance. To learn more about McREL, contact us at 303.337.0990 or info@mcrel.org.

About this Report

This final report summarizes the scenario planning process that took place between April and October 2007 in Denver, Colorado, describes the outcomes of the process, and offers a set of recommendations for the consideration of CCCS leaders. The report is submitted to:

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COLORADO COMMUNITY COLLEGE SYSTEM

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Executive Summary

Introduction

As the state's largest system of higher education, the Colorado Community College System (CCCS) serves more than 116,000 students annually, through 13 career and academic programs located throughout the state as well as several partnerships with local school districts. CCCS' role and mission focus on two-year colleges, primarily serving Colorado residents, and offering a broad range of programs. Key features of the CCCS mission include:

- Open access
- Career and technical education (secondary and post-secondary)
- Transfer to four-year institutions
- Basic skills (remedial education), and
- Workforce development.

In fall 2006, McREL was engaged to facilitate a scenario planning process to help the Colorado Community College System envision the future of Colorado community college services in 2020.

About Scenario Planning

Scenario planning is the process of creating stories about possible futures in order to anticipate and prepare for changes beyond one's control. Scenarios do not predict the future, but they do provide a way to identify and manage uncertainties. Scenario planning challenges the current mode of thinking, bringing new insights that drive transformation in organizations and institutions. The process involves eight steps: 1) select the issue of focus and timeframe, 2) explore the external world, 3) clarify uncertainties, 4) develop the scenario framework, 5) write the scenarios, 6) identify implications and options, 7) monitor trends, and 8) take action.

Scenario Planning for the Colorado Community College System

The work began in April, 2007 with an introductory presentation by Laura Lefkowits, McREL's vice president for policy and planning services, on drivers of change and the scenario planning process. Through the discussion, CCCS identified its focal issue to be this question: *What will be the demand for Colorado community college services in 2020?*

A series of three intensive workshops were held May through September 2007. A group of 17 representatives from across the system—named the "Envisioning the Future" work group—developed a scenario framework focused on the dimensions of education as a public good or private benefit crossed with the dimensions of a culture of high or low expectations for learning. The first dimension—education as a public good or education as a private benefit—reflected the notion that it was possible that society could view the purpose of education as only to benefit the individual learner in order to get a job as opposed to having a broader, public purpose. As such, the role of government in education would decrease, over time (education as a private benefit). Conversely, it is also possible that the public or civic purposes of education could increase and with it, the role of government in education would also increase, over time (education as a public good).

The second dimension—culture of learning (high expectations or low expectations)—reflected the idea that society could continue to tolerate mediocrity, a media- or entertainment-culture, and other distractions at the expense of academic achievement and rigor in learning. In the world where low expectations permeate society, despite the efforts of educators, there is little motivation to learn and achieve among the general population. In the world where high expectations are the norm, students, and society as a whole are highly motivated to learn and demand rigorous education.

These dimensions were crossed on a Cartesian plane creating four quadrants representing four distinct worlds and possible futures. Deep causes were identified in order to create a logic outlining how the world got from the current reality of today to each of the four possible futures of 2020. From here, four separate, plausible, logical, and relevant scenarios were written. A brief abstract of each scenario appears below. The complete set of scenarios along with an analysis of the implications of each one and strategic options for the CCCS are provided at the end of this document.

The World in 2020: Four Possible Futures and their Implications for the CCCS

Scenario A: Education is Job #1

In this scenario, the prolonged war in Iraq escalates draining focus and resources from domestic issues like education until 2011 when the opportunity arises in Colorado to develop and bring to scale a new technology that would end American dependence on foreign (and domestic oil). Colorado benefits from the vision and tenacity of a constellation of key leaders representing several generations—Senator Smith, an aging baby boomer; Maria Martinez, a visionary Millennial heroine; and Governor Simon, a pragmatic Gen-X leader—combined with a multi-sector and multi-industry effort to pull together for the common good. Together, the leaders galvanize the potential of Colorado to play a key role in renewable energy solutions for the world. The leaders recognize that education is the key to doing this and they organize a massive campaign, called the "Education=Job #1 Campaign" to generate new investment and focus on high quality education for all.

Scenario B: Uncle Sam Knows Best

In this scenario, Colorado and the US are experiencing a recession as a result of global flattening. Many middle-income jobs have moved off shore to China and India. Economic stratification has deepened and the country is losing its middle class. Jobs are available, but they are low-skill, and low-paying. Although educators and policy makers alike recognize that higher levels of education is the key to securing higher paying jobs and economic development, their efforts come in the form of increased mandates and strict accountability that produce the opposite effect—turning off students from learning because they do not see the relevance of learning and achievement to their lives or as a pathway to a better job.

This scenario describes a large, reluctant-to-change public educational system swimming upstream against a societal and youth culture more interested in Paris Hilton, Britney Spears, and Hannah Montana than in learning or achievement. In the scenario, this world continues without much change from 2007 to 2020. There is support for the idea of education as a public good and some level of resources to match, but not enough to truly transform the system into one that leverages

innovation and creativity to reach the highly tech-savvy, gaming- and entertainment- distracted youth of today and tomorrow. It's as if society has just resigned itself to accept things the way they are. Technology itself has expanded and become so inexpensive and available to all that information—what was once the domain of learning in school—is easily accessible to just about anyone. What's the point of school when most of the jobs that are readily available do not require higher learning? Readers view this world through the eyes of Madison, the main character, who strives to become a dancer and struggles to see the relevance of more education.

Scenario C: McDegree-You Deserve a Break Today!

In this scenario, for profit companies find great benefit in offering a high volume of fast degrees, on the cheap. This matches the demands of the population which seeks the fastest, easiest route to a job—and credentials—rather than a more well-rounded education. Society has pretty much given up on public education to provide the "fast learning" options demanded by both culture and industry. The void is quickly and easily filled by ready, willing, and able private companies who take the concept of learning anytime, anywhere, and in any way to a whole new level. They provide easy access, cheap tuition, quick degrees, and various "mix and match" options for students. They build on technological advancements to allow multi-tasking and extreme personalization to play a role. Public institutions, which have struggled to keep up over the years, are truly left in the dust in this world.

The scenario presents the correspondence between Marci, an atypical, traditional college student who unlike the majority of her peers, seeks a more well-rounded higher education, her father, a traditional college professor, and his colleague, who has gone to work for one of the "McDegree" institutions. Their conversation reveals the tensions inherent in the competing values present in this world.

Scenario D: Pepsi University

In this scenario, the 800 pound gorilla dominates the education scene in every way, shape, and form. Brought on by declining affordability of public higher education, lack of quality in K-12, growing demands for a more highly-educated workforce due to globalization, and the slowness of public systems to adapt to changing times—big business gives up trying to "help," and simply moves in for its own benefit. Large corporations like Pepsi are able to set up shop, branches, franchises, and establish well-regarded corporate "identities" within the education world, and society (and learners) eagerly respond. Pepsi University, Google University, Harpo University all represent the "in" brands of the decade and competition heats up among selective students to choose to attend the "best" brand. Corporate universities have the prerogative to be selective as the demand for their "product" is very high. Over time, they become increasingly selective and reach further into the educational pipeline to "lock in" the high achievers at early ages. Their influence begins to spread to K-12 education as well.

In the scenario, the CEO of PepsiWorld, Dennis Prease, becomes motivated to start his own school and university by the low quality education his grandchildren receive in the public system. Pepsi University is highly successful as the first-to-market of any such institution, but spawns a movement across the corporate world. The scenario offers a glimpse of this world through an ABC News series in June 2020, focused on the remarkable success of the Corporate College model.

Once these scenarios were written, read, and analyzed, the work group used them as a context for determining the implications for the CCCS as well as strategic options that would enable the CCCS to survive and thrive in each of these four possible futures.

Implications and Options for the CCCS

Implications and Options for Scenario A: Education is Job #1

Community colleges have a tremendous opportunity, if properly prepared and positioned, to increase their relevance and demand for their services in the high public good/high culture of learning world. In order to benefit, they must remain agile, flexible, and able to adapt to changing times as well as changing industries. They must stay on the lookout for emerging industries—such as the potential within renewable energy—and invest in partnerships that tie the educational services they provide to jobs within the industry. They must also overcome some weaknesses and threats inherent in this world, such as competition from four-year institutions which become more appealing to greater numbers of students after high school since they are better prepared for college than at previous times in history. The demand for remedial education is likely to drop in this scenario. Community colleges can overcome this by firmly positioning themselves as THE path to the baccalaureate degree, developing stronger partnerships with K-12 and offering college courses earlier. Establishing community colleges as a key piece of a P-20 educational system (perhaps a 10th through 14th grade) is another way for community colleges to benefit in the high public good/high culture of learning world. Key to its success is the ability to obtain mission-driven funding as opposed to the current FTE model of funding for community college. Finally, coordinating efforts and leveraging resources and influence across the system while eliminating competition among colleges also helps community colleges to succeed in this scenario.

Implications and Options for Scenario B: Uncle Sam Knows Best

Community colleges maintain a high demand for their services in this scenario by continuing their commitment to remedial education, providing education for the service sector, and continuing strong rapport among policy makers. Colleges struggle mightily to motivate and engage students in learning within this scenario and must turn to entertainment-focused "gimmicks" like getting celebrity endorsements in order to catch the attention of the youth culture of the future in the low culture of learning/public good world. If public policy is dominated by tight controls and lack of flexibility and incentives for innovation, reaching the student population will be even more difficult. Strengthening the connections between college and jobs is a good way to prepare for success in this world. Boosting creative efforts to engage students across the board is another way. Colleges may also want to improve student services, especially those focused on retaining students in school and supporting them as they learn the connections between school and employment opportunities. Finally, the opportunity to demonstrate results through measurement of outcomes would help increase public resources in this scenario.

Implications and Options for Scenario C: McDegree

Community colleges will have a difficult time competing in this scenario without dramatically increasing their flexibility and ability to adapt and innovate quickly, in order to keep up with the changing demands of society and industry. Holding on to many of the "traditions" of higher education—even those as simple as the three-credit courses, or the notion of seat time as a

measure for learning—is likely to hold community colleges back from the innovation that will be needed in order to survive in this private benefit/low expectations for learning world. Without question, the mission of community college itself will be under threat in this world. Community colleges will need to radically transform themselves in order to provide a higher quality offering, for less money. Opportunities to meet this challenge do exist, however. Colleges could begin expanding anytime, anywhere learning, focused on outcomes instead of "seat time," and improving the quality and variety of delivery methods for learning. Offering shorter-duration "courses" that help students complete programs in shorter periods of time might also help community colleges maintain an edge in the face of the "McDegree" competition. Expanding the number of early college models where community colleges partner with K-12 schools and offer programs earlier in their schooling combined with close ties to business and industry is another way for community colleges to prepare for this future. Proactively coordinating and partnering with industry clusters also helps community colleges maintain a multitude of programs and degrees within key industries. Finally, marketing services to students who are currently not attending community college—the un-enrolled and the baby boomers—is another way that community colleges might seek a competitive edge in this world.

Implications and Options for Scenario D: Pepsi University

As difficult as it will be to compete against corporate goliaths, Colorado community colleges do stand a chance if they become well coordinated and organized as a system—and perhaps even one that operates in a "corporate" manner. In this private benefit/high culture of learning world, the "system" itself, is a strength, if it can become a high quality "brand" desired by students who seek more variety and flexibility in their educational opportunities than the corporate "tracks" provide. Individual colleges may need to identify and find their particular "niche" within the market in order to compete. Increased collaboration with the private sector, especially those mid-sized companies that are not likely to create their own universities, but rather seek to partner with higher education, is key. Finally, developing strong and well coordinated career pathways for students will be essential for community colleges to survive in this scenario.

Robust Options and Recommendations for the CCCS

Strategies that applied to all possible futures were deemed to be the most "robust" of the options and were used to generate a set of recommendations for CCCS to pursue today in order to prepare for tomorrow. Through these discussions and analyses, the work group determined that it is essential for CCCS to enable Colorado community colleges to *innovate* in order to successfully *compete* in the ever-evolving 21st century world. This became the group's overarching theme for this entire body of work. By implementing the following robust options, the CCCS can become well prepared to face any future.

1. **21st Century Mission**: Make Colorado community colleges the place to learn 21st century skills; Integrate 21st century skills in everything community colleges do

2. **Student Engagement**: Encourage system-wide support for student engagement

3. **Corporate Relations and Partnerships**: Provide support to enhance partnership opportunities among colleges and business and industry

4. **Perceptions**: Improve the perceived value of community colleges in Colorado

5. **Research and Accountability**: Strengthen the focus on accountability and institutional research, system-wide

6. **Advocacy Agenda**: Develop a long-term strategic advocacy plan for the state legislature, Governor's office, Department of Higher Education, and the federal government that includes improving state funding for the full community college mission

7. **Career Placement**: Formalize process and infrastructure to increase the number of graduates who are directly placed in jobs.

Recommended Next Steps

The strategies outlined during the scenario planning process are the first in an ongoing process of planning for the future. The following recommendations are offered as CCCS considers its next steps:

1. Present results of scenario planning process to and discuss final report with the State Board for Community Colleges and Occupational Education.
2. Consider ways to engage the broader community in conversations about the future of community college services in Colorado.
3. Establish an ongoing mechanism to monitor trends, communicate them, and analyze their implications for the CCCS.
4. Translate robust and strategic options into a concrete action plan that guides program implementation and operations.
5. As the CCCS begins taking action on its robust options or other strategies, consider the following:
    a. Engage in a process to prioritize the needs of the CCCS.
    b. Examine the current and proposed CCCS policies and practices in light of the scenarios and their implications.

Conclusions

The enclosed final report describes the scenario planning process used along with the discussion and analysis that informed the development of CCCS' robust options for the future. By considering four possible responses to the focal issue, the Colorado Community College System has successfully begun to prepare for any possible future and position itself for ongoing success as time marches steadily toward 2020.

The Demand for Colorado Community College Services in 2020

Introduction

As the state's largest system of higher education, the Colorado Community College System (CCCS) serves more than 116,000 students annually, through career and academic programs in 13 colleges located throughout the state. The CCCS' role and mission provides two-year college degrees, serves Colorado residents, and offers a broad range of programs. Key features of the CCCS mission include:

- Open access
- Career and technical education (secondary and post-secondary)
- Transfer to four-year institutions
- Basic skills (remedial education), and
- Workforce development.

In fall 2006, McREL was engaged to facilitate a scenario planning process to help the CCCS envision the future of Colorado community college services in 2020. The work began with an introduction to scenario planning in April, 2007 and continued over a series of three intensive workshops:

- Workshop #1: Drivers of Change (May 31, 2007)
- Workshop #2: Developing the Scenario Framework (June 4-6, 2007)
- Workshop #3: Analyzing Scenarios for Implications and Strategic Options (September 26-27, 2007)

In May, over 100 representatives from throughout the system contemplated and prioritized drivers of change for the future. In June, a workgroup of 17 representatives from across the system—named the "Envisioning the Future" work group—developed a scenario framework focused on the dimensions of education as a public good or private benefit crossed with the dimensions of a culture of high or low expectations for learning. Over the course of the summer, four separate, plausible, logical, and relevant scenarios were written and then used as a context for determining strategic options that would enable the CCCS to survive and thrive in each of these four possible futures. The scenarios were analyzed for implications and strategic options in the fall workshop. Strategies that applied to all possible futures were deemed to be the most "robust" of the options and used to generate a set of recommendations for the CCCS to pursue today in order to prepare for tomorrow.

Through these discussions and analyses, the work group determined that it is essential for the CCCS to enable Colorado community colleges to *innovate* in order to successfully *compete* in the ever-unfolding 21st century world. This document describes the scenario planning process used along with the discussion and analysis that informed the enclosed recommendations to help CCCS become well prepared for the future.

About Scenario Planning

Scenario planning is the process of creating stories about possible futures in order to anticipate and prepare for changes beyond one's control. Scenarios do not predict the future, but provide a way to identify and manage uncertainties. Scenario planning reveals risks and opportunities. It is especially useful for examining current or proposed policies in light of what the future may hold.

Scenario planning is different from other kinds of planning. It explores combinations of uncertainties—especially uncertainties that are challenging. It is ongoing and collaborative and results in the ability to identify changes early and respond to them as they arise. It challenges one's current mode of thinking, bringing new insights that drive transformation in organizations and institutions.

There are eight steps in the scenario planning process:

1. Select the issue of focus and timeframe.
2. Explore the external world.
3. Clarify uncertainties.
4. Develop the scenario framework.
5. Write the scenarios.
6. Identify implications and options.
7. Monitor trends.
8. Take action.

Once all steps have been completed, scenario planning illuminates the issues so that leaders and stakeholders can think strategically. The consequences of and opportunities in certain actions within different possible future contexts become more clear, and leaders are able to re-position an organization for greater success.

Scenario Planning for the Colorado Community College System

Although scenario planning is a well-developed tool that has been used by countless organizations to prepare strategic plans in response to foresight, each project is highly customized to its context. Thus, over the course of the year of activities, various representatives and leaders of the Colorado Community College System worked together with McREL consultants to shape the project to meet the specific needs of the CCCS. The eight-step process evolved over the course of several months between April and October 2007, and was facilitated by Laura Lefkowits and Jill Conrad. This section describes the steps taken along the way.

Participants

The scenario planning process involved 17 stakeholders from the various colleges that comprise the CCCS, the Board of Trustees, and the CCCS administration. Participants included:

Kitty Curtis, Student, Front Range Community College

Rhonda Epper, Co-Executive Director for Learning Technology, CCCOnline

Judy Giacomini, VP of Student Services, Northeaster Junior College

Bernice Harris, Vice President of Instruction, Community College of Aurora

Dr. Gayle Krzemien, SFAC Chair, Pikes Peak Community College

Mike Maestas, Dean of Student Services-Valley Campus, Trinidad State Junior College

Barbara McKellar, Chair, State Board for Community Colleges and Occupational Education

Connie Meese, Student Services Administrative Assistant III, Morgan Community College

Carol Jonas-Morrison, Division of Mathematics and Technology Dean, Pikes Peak Community College

Darlene Nold, Director of Institutional Research & Planning, Community College of Denver

Bill Lewis, Director of Planning, Accreditation, and Effectiveness, Pueblo Community College

David Shellberg, Vice President, Arapahoe Community College

Dr. David Smith, Chief Administrative Officer, Lamar Community College

Andrew Stevens, Data Analyst, Red Rocks Community College

Dr. Sandy Veltri, Dean of Student Services, Trinidad State Junior College

Chris Ward, Executive Director - Grants & Planning, Community College of Aurora

Todd Ward, Instructor of Biology/Department Chair, Colorado Northwestern Community College

Step 1: Selecting the Issue of Focus and Timeframe

In April, 2007 a group of eight Colorado Community College presidents along with Nancy McCallin, President, Colorado Community College System, and Kristin Corash, Associate Vice President for Strategic Planning and Research, met with Laura Lefkowits of McREL to:

- Gain an understanding of the process to be used to plan for the future of the Community College System
- Share the planning activities of individual colleges

- Discuss expectations and key issues that should be addressed by the system-wide planning process

Following this meeting, one-on-one interviews were conducted with key members of the CCCS senior staff and Board of Trustees. Questions focused on:

- Information interviewees wanted to know about the future
- Critical or strategic decisions on the immediate horizon for the CCCS
- Hopes for the future
- Fears and concerns about the future
- Sense of belonging and engagement with the CCCS
- Preferred elements to retain and those to let go when moving to the future
- Suggestions for involvement of others in envisioning the future
- Benchmarks for success of the project

Results from the April meeting and interviews were summarized to understand the present context of the CCCS as well as shared aspirations for the future. A brief summary of the key themes from these discussions and interviews appears below.

Theme 1: Resources

"Funding" was mentioned by nearly every participant in both group discussion and one-on-one interviews as a key strategic issue facing the CCCS. This issue was further defined in terms of *adequacy* (e.g., there are simply not enough dollars to meet the need) and *equity* (e.g., the way in which dollars flow from the state to higher education, from higher education to community colleges, and from the community college system out to individual colleges – particularly rurals and urbans – is not always fair). This was a dominant and preoccupying theme for the CCCS leaders with the problem being viewed as an external one that can be fixed only by others, e.g., the legislature, the governor, or the voters.

Theme 2: Turf Battles

As with "resources," turf battles were a major concern of every participant. When responding to the question, *if you looked back from 10 years hence and told the failure of the CCCS, what would be the story?*, the inability to stop the turf battles was the key feature of each scenario. By contrast, the success story was described as one in which people were willing to set aside their claim to turf, give up the need to take credit or shift blame, and focus their energies on simply meeting the needs of students. Success for community colleges was envisioned as a world in which, through partnerships with others, including corporations and other educational institutions, a "seamless" system had been created, one that made it easy for any student to identify an appropriate career path, obtain the necessary knowledge, skills, and credentials from whatever part of the system could offer them, and go on to have a healthy and productive life.

Theme 3: The System

Participants demonstrated their ambivalence about being part of the "system" of Colorado community colleges in a number of statements. Presidents commented about the importance of colleges being able to maintain their autonomy into the future and there was concern expressed about the ways in which bureaucracy and governance structures often overshadow the emphasis on outcomes for students. On the other hand, discussion was dominated by "systemic" issues such as funding formulas which were viewed as solvable only by political means, and the need for increased resources which might be found through partnerships with external entities. The tension between the desire to maintain independence from the system and the reality that support from the system is necessary if one is to survive in the current climate was apparent.

Theme 4: Workforce of the Future

What will be the knowledge and skills required by the workforce of the future and will community colleges be able to provide the appropriate education was a question on everyone's mind. This issue is particularly perplexing in Colorado with its multiple micro-economies. Colorado's workforce ranges from agricultural to high-tech and the ability of the CCCS to "be all things to all people," especially with limited resources, was also a concern. Several participants wished they could forecast with greater accuracy the workforce needs of the future so that they could begin to tailor their program offerings accordingly.

Theme 5: Other Issues of Concern

Other issues of concern shared by participants included:

- Bricks and mortar
- Immigration
- Public perception of community colleges
- Real and perceived value of associate's degree
- Competition with other higher education institutions
- Meeting the needs of students of color
- Lack of alignment of the entire educational system, from pre-school through higher education
- Ability to hire and retain high quality senior leadership

Theme 6: Benchmarks for Success

Participants also shared their thoughts about what indicators would deem this effort a success. In response to the question, *A year from now, how would you know if this project had been a success?* several responses (paraphrased below) were of note:

- *Success means that we have had open and honest conversations.*
- *We don't have to have a huge, big wonderful plan, but if we have some strategic pathways, that would make a tremendous difference in what we're doing.*

- *If different people at all levels of the system get to participate it would be great – administrative assistants, janitors, etc.*
- *I hope we walk out of this with a vision for the future that we can articulate to the legislature, to each other, that resonates with us, that gives us pride.*
- *We will have a Big Vision and people will want to buy into us and that's how we will get the financial health that we need.*
- *It can't be a white paper that sits on a shelf. It has to be a living, breathing document that is absorbed, accepted and understood by everyone, all the way down to the classified staff.*
- *It must be continually reviewed and updated.*

Based on these results, McREL helped gear the scenario planning process toward the issue most relevant to the CCCS. Figure 1 outlines the focal issue selected by the CCCS leaders. From this point forward, the entire scenario planning process was aimed at providing a structured response to the uncertainty inherent in this focal issue.

Figure 1: The CCCS's Focal Issue

> *What will be the demand for Colorado community college services in 2020?*

Step 2: Exploring the External World

On May 31, 2007, Laura Lefkowits presented a PowerPoint presentation on the trends shaping the future to a large group of over 100 representatives from across the community college system. The presentation provided an overview of the *drivers of change* in broader society. Drivers of change are forces outside of an organization that shape the future in both predictable and unpredictable ways. The drivers of change discussed covered the areas of:

- Demographics
- Economics
- Globalization
- Technology
- Education policy
- Higher education and community colleges in Colorado

After the presentation, participants engaged in a brainstorming process to identify the drivers of change most relevant to Colorado community colleges. They then used colored dots to vote on their top choices. The results showing the top ten drivers of change are identified in Figure 2. A complete list of all of the drivers of change identified by the full group is provided in Appendix A.

Figure 2: Top Drivers of Change for the CCCS

1. Funding and Finance issues (Total Dot Votes = 452) 2. Globalization and the Economy (Total Dot Votes = 409) 3. Technology (Total Dot Votes = 340) 4. Population and Demographic Changes (Total Dot Votes = 292) 5. Politics, Political Shifts, Public Policy, Leadership & Governance Issues (Total Dot Votes = 269)	6. Systemic Education Issues, Quality of Education (and preparedness of students) (Total Dot Votes = 251) 7. Flexibility, Adaptability, Customization, & Individualization (Total Dot Votes = 173) 8. Public Perceptions & Public Relations (Total Dot Votes = 103) 9. Recruitment & Retention of Faculty and Administration (Total Dot Votes = 89) 10. Environmental Issues (Climate change, energy, etc.) (Total Dot Votes = 75)

Step 3: Clarifying Uncertainties

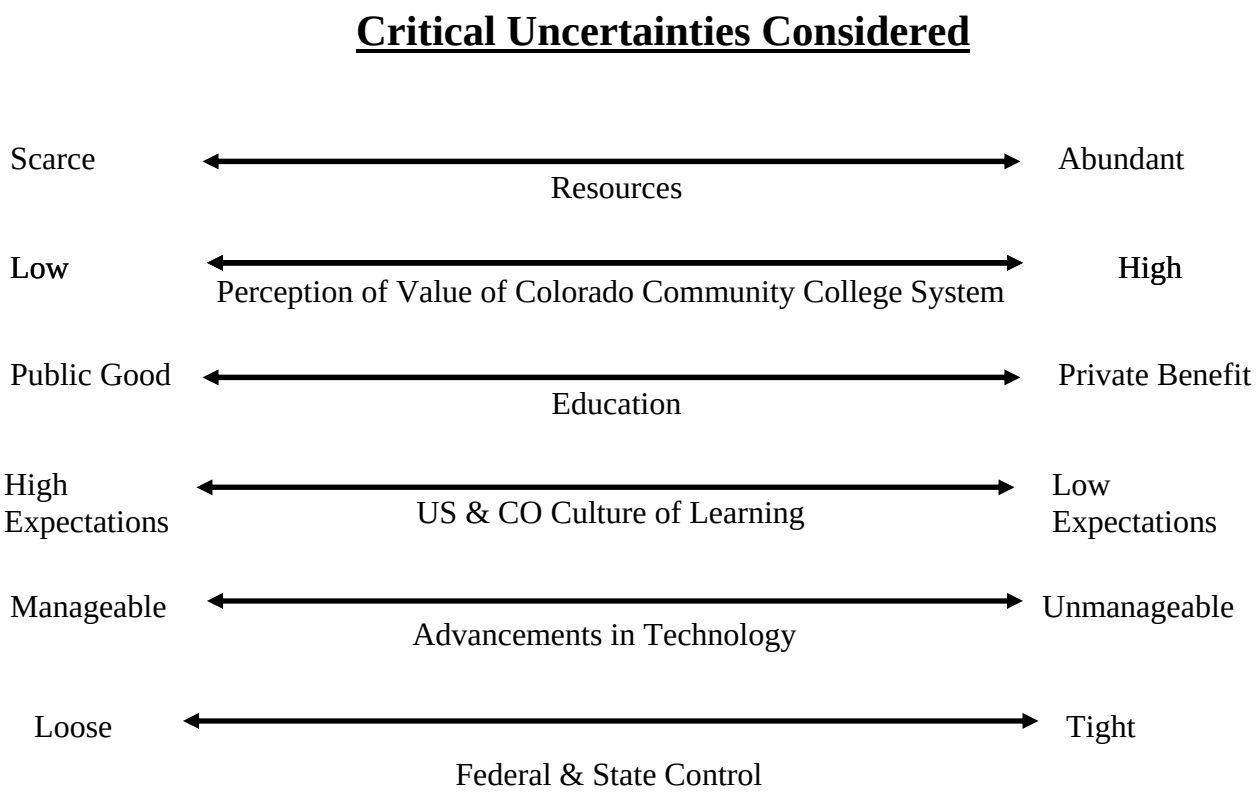
The following week, 17 working group members convened for a three-day intensive workshop on June 4-6, 2007. The group first spent time coming to better understand the focal issue selected by the CCCS. They then reviewed the results from the dot voting in light of the CCCS' focal issue and determined which drivers of change were *predetermined,* or highly likely to play out in the future (and therefore not uncertainties), and which were *most uncertain.* Critical uncertainties are the "big questions" that are *most critical* to the issue at hand. Predetermined elements are things participants believe will happen or will exist in the future and which must be accounted for in every scenario. They are outlined in Figure 3.

Figure 3: Predetermined Elements

1. Demographic changes
2. Globalization
3. Environmental Issues

Once the list of critical uncertainties was generated, the group then prioritized that list, selecting their top choices, focusing on what was most uncertain and relevant to their focal issue. The uncertainties were placed on individual axes and through in-depth discussion focused on the most meaningful aspect of the uncertainty for Colorado community colleges, endpoints for each were identified. Figure 4 presents the critical uncertainties and their endpoints considered by the workgroup.

Figure 4: Potential Critical Uncertainties Considered by the Work Group



Step 4: Developing the Scenario Framework

Once the group had the set of critical uncertainties they most wished to consider, they then went to work exploring the intersections of different possible uncertainties. That is, by crossing two critical uncertainties on the x and y axis of a Cartesian plane, possible scenario frameworks were produced revealing four quadrants—or, possible future worlds—for each.

The next step involved developing and selecting the most appropriate scenario framework for the focal issue at hand—the most critical stage of the scenario planning process. To accomplish this, participants must determine the scenario framework around which actual stories about the future will be written. These, ultimately, will become the scenarios shared with others to motivate action and strategic directions. To identify the scenario framework for the CCCS, participants spent time deliberating on many possible uncertainties in combinations of two.

To help select the right framework, participants were asked to analyze each possible combination based on what was going on in each quadrant. As the basic story of that future world was told and all four quadrants fleshed out, the particular scenario framework worked *only if* the stories in each quadrant were each:

- Different from the other quadrants

- Challenging to current thinking
- Relevant to the focal issue
- Logical, in terms of there being a sequence of events which could occur between now and then to create such a world
- Plausible, in terms of such a world being, while challenging, still believable.

If a particular scenario framework did not work—for example, if two quadrants seemed too similar to each other—then the framework was not an appropriate one to select. Similarly, if the world unfolding in any one of the quadrants was not logical or plausible, then the framework was also not an appropriate one to select.

After experimenting with and analyzing several different possibilities the group settled on the two most critical uncertainties affecting the future of community colleges in Colorado and most relevant to the focal issue at hand. After much discussion, the group settled on:

1) Education (with axes entailing: public good/private benefit)
2) Culture of Learning (with axes entailing: low expectations/high expectations)

The work group selected these particular uncertainties because of their strong feelings about the importance of each domain to the focal issue at hand. In the case of education as a public good or a private benefit, the group believed that, in the future, it was possible that society could decide that the purpose of education is only to benefit the individual learner – to get a good job, for instance – and that only those who benefit directly from education should be required to pay for it or be expected to take an interest in it. Government, in this world, would no longer play a role in providing education (except as a last resort). Instead, corporations would likely take over primary responsibility for schooling in order to educate the workforce they need. A variety of trend information led the group to believe that this was plausible. At the same time, the group could see the world maintaining or even strengthening the view that education is a public good and must be supported by government even more strongly than it is today. Obviously, the implications for community colleges of such a shift in social priorities would be significant.

In the case of the culture of learning, the group had considerable discussion about what they perceived to be a pervasive tolerance for mediocrity toward learning and lack of rigor in American society these days. This culture of learning with low expectations, as it was defined by the group, is having significant negative consequences on the education enterprise and, if it should increase, these consequences would only intensify. If, on the other hand, the culture of learning should shift to one in which high expectations, rigor, and excellence were valued, the impact on the entire educational system and the demand for community college services would be great. Again, a plausible case could be made for the world moving in either direction – toward lower expectations or toward higher expectations – and this uncertainty was considered to be critical to answering the focal issue.

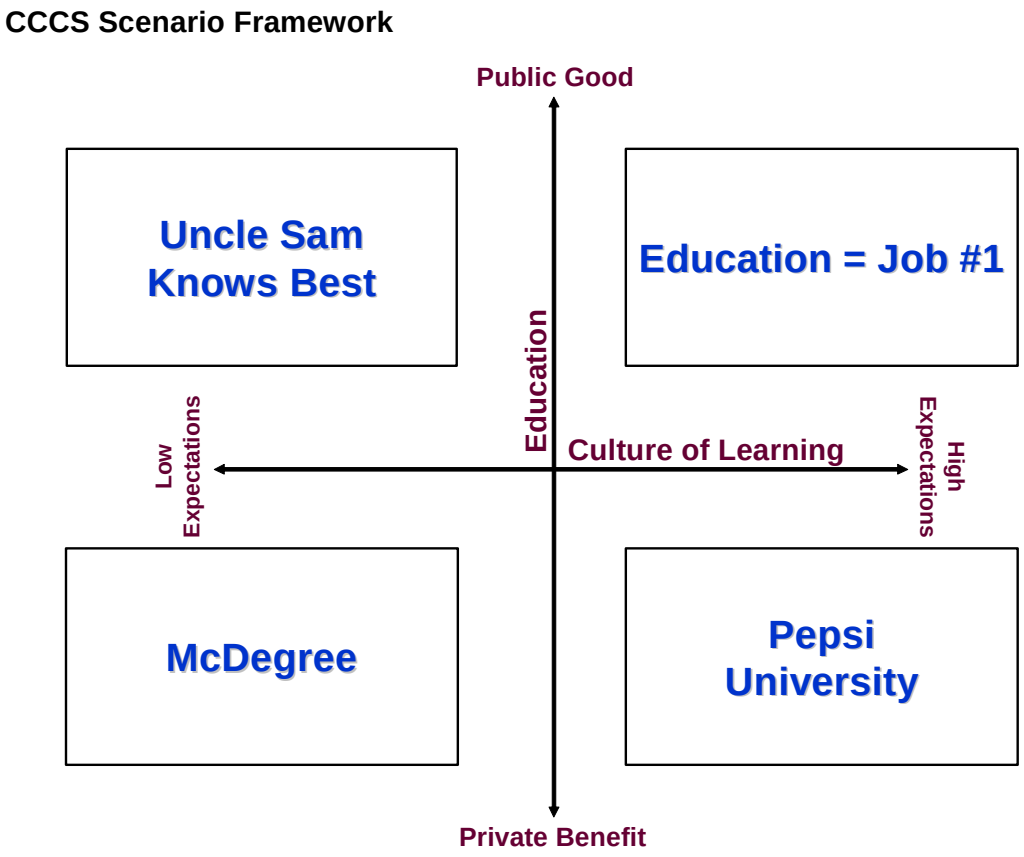
These two critical uncertainties were crossed on the axes (x and y) of a Cartesian plane to form the final scenario framework selected by the group. Once identified, the group spent time further developing the stories unfolding in each of the four quadrants by answering the question, *this is a*

world in which? Participants were further aided in their storyline development through the following STEEP prompt:

- Social—What does *society* look like in this world?
- Technological—What does *technology* look like in this world?
- Environment—What does the *environment* look like in this world?
- Economy—What does the *economy* look like in this world?
- Politics—What is happening in the *political* arena in this world?

Ultimately, the group identified the basic storyline for each quadrant and selected a title appropriate to describe what was taking place in that world. Figure 5 presents the final scenario framework selected for the CCCS and the chosen titles for each quadrant.[1]

Figure 5: Final Scenario Framework and Titles for the CCCS Scenarios



[1] As is often the case with scenario writing, the title for "Education = Job #1" evolved from an earlier choice of "Things got Worse Before they got Better." As the writers' understanding of the story evolved, the new title was selected to better reflect the world depicted in the high expectations/education as a public good quadrant.

Once the scenario framework was determined, the group spent time in small groups identifying the deep causes underpinning the future context in each quadrant. Deep causes help develop the basis for the stories, or scenarios, to be written about what's going on in each of the four worlds. Participants discussed the story within each, completing the statement, "This is a world in which..." Participants further developed deep causes by answering the following questions:

- What does it look like in this world?
- What motivates the people?
- What is the Society, Technology, Economy, Environment, Politics (STEEP) like?
- Who has power?
- Who benefits from this world?

The group identified several "draft" deep causes for each quadrant. For example, in the "McDegree" scenario where the world is characterized by education as a private benefit and the culture of learning in society is non-rigorous with low expectations, some of the deep causes contributing to this scenario might be:

- A proliferation of the culture of entertainment in our society
- Continued failures of the public education system
- Technology and profit-making opportunities making it easier and easier for proprietary institutions and degree mills to set up shop and corner the market

In addition, participants developed a "storyboard" for each of the quadrants. The storyboards provided chronological headlines of possible news stories describing the unfolding of events in each world from 2007 to 2020. These headlines help scenario writers follow a certain logic in terms of how big events might unfold in the future. An example of a storyboard for the "McDegree" scenario is provided in Figure 6, below.

Figure 6: Storyboard--Possible Headlines for the McDegree Scenario

Year	Headlines
2007	• US declares war on Iran, Russia, and N. Korea • Students win landmark lawsuit for being failed. Claims "intellectual harassment." • Influx of foreign tech professionals to Colorado causes real estate prices to spike
2009	• HP closes down and moves to China • All degrees and certificates are market-driven • Average class size is 500 (all delivery formats) • Community college limits access due to financial constraints
2011	• Google Community College market leader in tech training • Wal-Mart Community College dominates Colorado developmental market • 50% Colorado community colleges close in consolidation • 2010, Ref C expires, TABOR returns • Backlash closes CC system, attempts to get around TABOR anger voters
2013	• 2012, Colorado contracts with University of Phoenix to deliver job training • Baby boomers vote for huge social security raise, generational disputes ensue • 2014, Microsoft moves headquarters to China • Wal-Mart Community College abandons immigrant market
2015	• Federal financial aid program abolished

	• Bill Gates buys all remaining engineering & tech schools in the US-only rich can apply
2017	• Regional accreditation agencies are disbanded • Colorado provides more resources to immigrants' social services, less education
2020	• Social security and health care take lion's share of budget, all education privatized

The combination of "draft" deep causes and storyboards were used as the foundation for actually writing the scenarios. The writers used these ideas to spin plausible themes, plot, focus, and format for the stories depicting the world unfolding within each quadrant. A copy of all the "draft" deep causes and storyboards considered by the writers can be found in Appendix B.

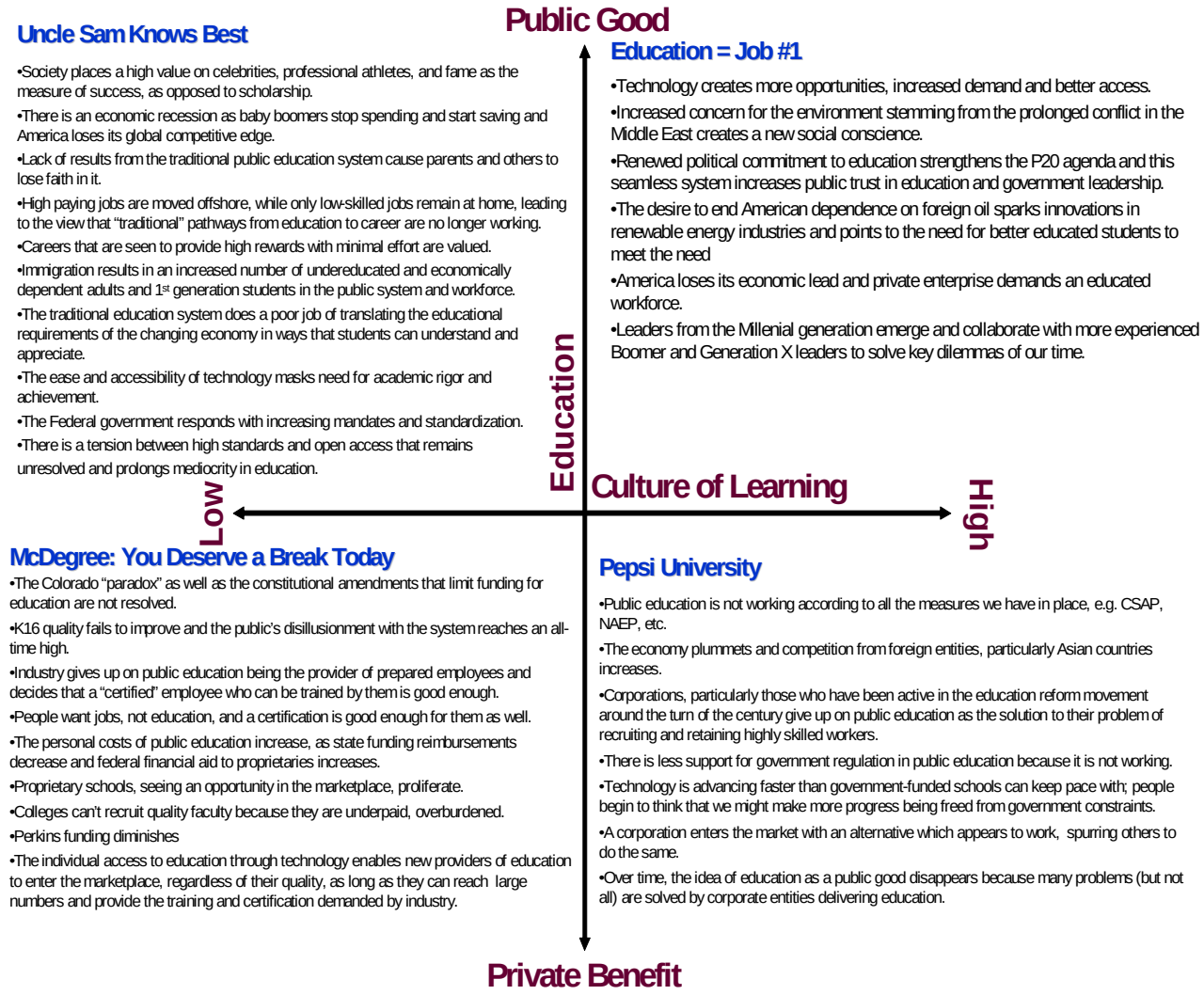
Ultimately, the scenario writers had to use their own judgment, selecting the most important deep causes for each scenario while disregarding the others. Figure 7 presents the group's final selection of those deep causes most relevant to each scenario (see Appendix C for a full page view of the deep causes).

Further discussion ensued to ensure that the scenario framework was as rigorous as possible. This entailed consideration of the following questions:

- Is each quadrant different from the others?
- Do they challenge your thinking?
- Are they plausible?
- Are they relevant to the focal issue?
- Do they pass the "Deep Causes" test?

Figure 7: Deep Causes of the CCCS Scenarios

Deep Causes: *What events could lead to this scenario? What would have to happen between now and 2020 for the world described here to be possible?*



Step 5: Writing the Scenarios

"Scenarios are stories. They are works of art, rather than scientific analyses. The reliability of (their content) is less important than the types of conversations and decisions they spark."

--Arie de Geus, The Living Company

A few weeks after the workshop, volunteer writers from the scenario planning team met via a telephone conference call on June 20, 2007, to discuss their approaches to drafting each of the four scenarios. The group considered the deep causes and timelines involved in the evolution of a "story" for each scenario, following the notion of possible events that could create such a world between today and 2020. They further fleshed out some of the deep causes during the discussion.

Writers were asked to consider each of the deep causes, the key questions raised in the interviews, and the focal issue in developing the scenario drafts. Writers were also given many choices of how to approach the format for each scenario—a story, a newspaper article, a blog, etc. They were encouraged to be as creative as possible in order to produce a scenario that effectively engaged readers while adequately depicting the key elements of that hypothetical future. Writers were further aided by criteria that helped guide their writing and assessment of each other's work (see Figure 8 for a list of criteria used to evaluate and revise scenarios).

Figure 8: Seven Elements of Scenarios

1. Plausible—it could happen
2. Logical—it makes sense
3. Challenging—it challenges our thinking about the future
4. Important and Relevant—it motivates action
5. Engaging—it sustains the interest of readers
6. Balanced—it balances each axis & endpoint
7. Great Title—it sums it up

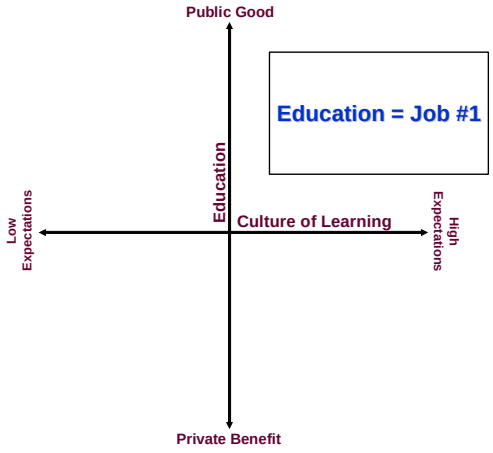
Throughout the summer, the scenario writing team developed several drafts and revisions with the support of each other and consultants from McREL. McREL provided guidance on the writing process, supported revisions, and made several editorial adjustments to the scenarios. Ultimately, the final scenarios accurately depict a plausible future, flow logically from one event to the next, engage and challenge readers' thinking and motivate readers toward action on the CCCS's focal issue. A brief synopsis of each scenario appears below. The complete scenarios, followed by an analysis of their implications, appear at the end of this document.

The World in 2020: An Overview of Four Possible Futures

This section provides a brief overview of the scenarios written to describe four possible futures that may unfold between now and the year 2020. The complete set of scenarios can be found at the end of this document.

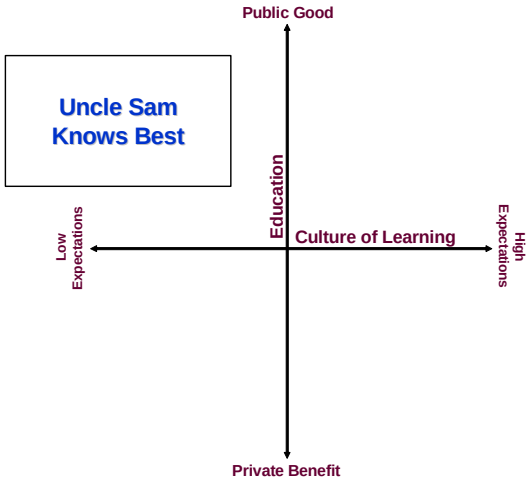
Scenario A: Education = Job #1

In this scenario education is viewed as a public good and there is a shift to a culture of high expectations and rigor, although it takes a while to get there due to the feeling that something big has to occur to cause this shift. The story moves from a perceived complacency in these areas as we follow the lives and interactions of two main characters, Sam Smith and Maria Martinez through a series of events that helps society realize how much better things could be. This realization comes after some very drastic events occur and stems from a need for a highly educated workforce in a few key industries, especially renewable energy and nanotechnology. In reality there are many more areas to consider.



Smith, born in 1944 and a member of the baby boom generation, spent the bulk of his career as a college professor before becoming a state senator, and special counsel on higher education in Colorado. Martinez, a Millennial born in 1988 and a former student of Smith's, demonstrates the potential of the burgeoning "hero" generation to focus on solving public problems in unique and innovative ways. Both become involved and active in the Governor's P-20 Education Council, which is continued throughout the administration that follows from 2014-2020. Society remains complacent about education from 2007 to 2012 when suddenly Colorado is presented with an opportunity to play a role in ending the long-running Pan-Islamic World War by developing and bringing to scale a new technology that will end the US' dependence on foreign oil, once and for all. Both Smith and Martinez recognize that developing the technology for hydrogen fuel pods (Hydro-Pods) is one thing. Developing it and bringing it to scale on a level that would impact the nation, and even the world, is another. Doing this would require a newly educated workforce to take on multiple roles within this and related industries. In 2012 there is a turning point when Smith and Martinez team up to launch the Education =Job #1 Campaign that re-focuses Colorado on building the strongest P-20 public education system in the nation. The scenario opens with news clippings introducing the main characters and then unfolds through excerpts from Sam Smith's journal and copies of letters he received from Martinez.

Scenario B: Uncle Sam Knows Best



In the world of "Uncle Sam Knows Best," Colorado and the United States are experiencing a recession as a result of global flattening. Many middle-income high tech jobs have moved off shore to China and India. Economic stratification has deepened and the country is losing its middle class. Our workforce is becoming less and less educated and that is worrying policy makers and business leaders who understand the need to compete globally. Education is high on the public agenda, leading to new mandates and increased micromanagement by concerned policy makers. Policy makers want measurable outcomes and are tying the demonstration of successful outcomes to continued funding. Most of those outcomes are in the form of test and completion data that measure how well students demonstrate mastery of specific information. The quantity of education is the focus. What is missing is "How" students are being educated: the climate that surrounds learning and the development of the student's ability to think critically and apply learning beyond the mastery of discreet skills.

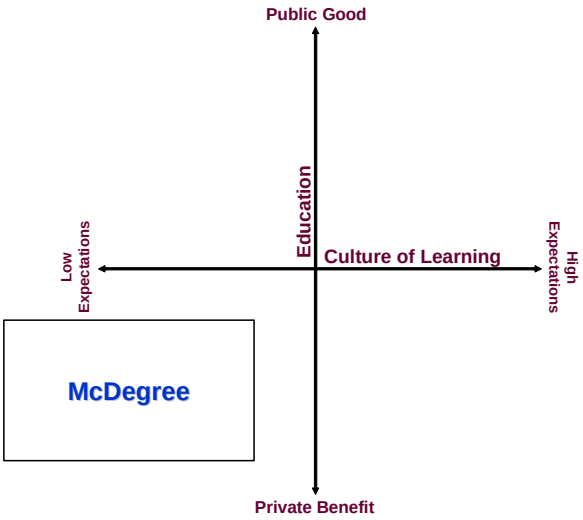
According to Thomas Friedman, author of "The World is Flat," workers in the "flat world" will need to be flexible, innovative, and able to meet a need that cannot be outsourced to a computer or to someone on another continent. While Friedman agreed that generally, more education is good, he also identified four themes that are important for educating a successful worker in the "flat world," including: instilling a love of learning in students; inspiring curiosity and passion in students; teaching relationship building to students; and developing right-brain skills. Because these competencies are not easily measured, these disciplines were not incorporated into the accountability system that policy makers put into place to measure effective education, and as a result, were not mandated as part of the curriculum.

In this scenario, some of the brightest students and a growing number of the general public find education less and less relevant to the real world. Celebrity – sports and entertainment – is promoted as a way out of the lower class and as the highest accolade of the culture. Basic technology is affordable and available to just about everyone in Colorado. Technology has enabled and supported instant gratification. Students don't see the reason for working hard to memorize facts or do calculations for tests. There is a large and growing demand for fast and simple degrees and certificates and there are jobs readily available to workers with these credentials.

Additionally, neither the public nor the policy makers have come to terms with the implications of low academic rigor in public education. Despite the public emphasis on education and its importance for a better life, students and their families are not seeing the connection between academic "rigor" and their own economic and political futures. Policy makers struggle to balance stricter standards with reduced access for the growing numbers of English language

learners and other students who come to school unprepared or who are unwilling to put effort into something they see as boring and disconnected to the real world. The "Uncle Sam Knows Best" world is one in which education is a public good and there is a low cultural expectation of learning.

Scenario C: McDegree—You Deserve a Break...Today!

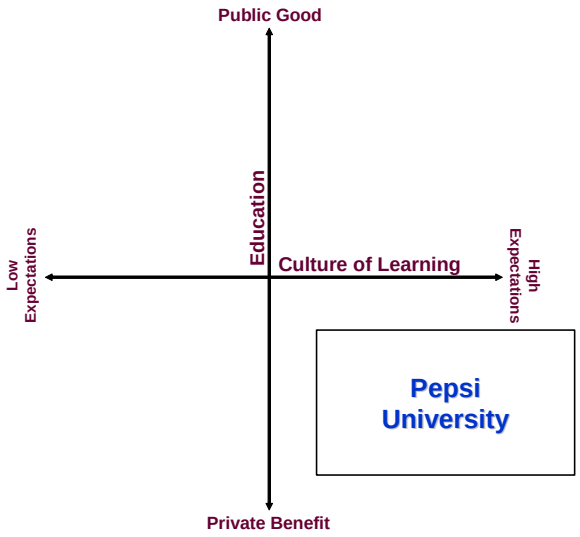


In the world of McDegree, public higher education is belatedly divesting itself of the last vestiges of its traditional mission--serving the public good. It has finally realized that in order to survive, it must emulate the competition and "provide services" to "individual consumers" in all their multiplicity and diversity. For years, colleges have steadily lowered the rigor of their courses and degrees to attract and retain students, but to little avail. Across the U.S., private education companies have been drawing students away from traditional public institutions for the better part of a decade. In the face of massive baby boomer retirements and continued growth in technology-related industries, businesses are crying for entry-level employees whom they can train in their own cultures and processes. The value of a traditional two- or four-year degree—which once included meaningful general education and citizenship components—has dropped significantly. Though such components still exist, they are for the most part "rubber stamped" in private schools, and public schools have begun to follow suit. In 2020, students demand basic technological skills they can market to waiting industry, and they demand degrees in the shortest possible time, with the least amount of interference in the form of developmental requirements, general education, or face-to-face instruction.

Other factors at play are as follows: 1) Continuation of FTE funding well into the last decade (2010-2020) has resulted in difficulties retaining qualified faculty, especially in high demand fields; they are paid more by private providers and have fewer governance/administrative burdens. 2) Perkins funding has been steadily declining as the public value of education has eroded, resulting in decreasing commitment to CTE, which industry can do quicker anyway by rubber stamping any general education requirements.

In this scenario, Marci (an atypical, traditional college student pursuing a Masters degree in Student Affairs) finds that job opportunities in public higher education have bottomed out as she approaches graduation. She seeks advice from her father, one of the last hold-outs, a Colorado public university administrator still philosophically devoted to the old values of public education. Her father, realizing that he has little to offer in the way of practical advice, introduces Marci to a former colleague who now works for a private higher education provider.

Scenario D: Pepsi University



In 2007, Dennis Prease, CEO of the multi-national PepsiWorld—headquartered in Denver—realized that America's public education system would fail to produce enough qualified workers to replace his aging and retiring workforce. Therefore, he devised a way to attract young talent to his corporation by offering more than just salary and bonus incentives. He went several steps further, pioneering the Corporate College approach that is now so popular worldwide. After college prep became a universal goal for all students, districts tried to meet this goal, but found themselves woefully under-staffed and under-capacity to do so on their own. States did not have the resources or the political will to help, and the feds were preoccupied with international and national security concerns. Thus, many "innovative" school districts and colleges who took the goal seriously turned to corporations for help. By 2009, as an extension of this approach, corporations began setting up their own colleges and "early colleges," recruiting students even before they graduated from high school and training them across the curriculum using highly focused, year-round, modular methodologies. By 2015, students were able to complete high school and college degrees (two- and four-year) in half the time of traditional education. School districts were relieved to receive this help. In recent years, PepsiWorld has begun offering graduate degrees as well, and its educational arm is now called PepsiUniversity. Upon successful completion of their degrees, students are offered full-time positions with PepsiWorld at whatever level they have shown themselves proficient: executive, sales, technical, maintenance, etc.

These changes came at just the right time in America's generational "moment." For several years, America's "Millennials" had been graduating from traditional high schools and going off to college with an increasing sense of dissatisfaction and frustration. They were anxious to lead and make a difference in the world but did not feel adequately prepared by traditional educational experiences. They wanted a faster start, more emphasis on technological and practical training, and more rigor in their coursework. For these reasons, they began flocking to corporate colleges.

Finally, the world of this scenario really consists of two distinct worlds: the relatively well-off, for whom the value of quality has taken hold, and the underserved, large numbers of whom are first or second-generation immigrants for whom the value of quality is only a dream.

- ***Benefits to the company***: Engaged employees who are loyal to the company with little turn-over; a workforce being trained specifically to their needs, terms, and expectations;

minimal outside interference (as long as benchmarks set by state educational agencies are met, Pepsi University maintains accreditation).

- ***Benefits to students***: Guaranteed employment, less time wasted in educational settings, free tuition, a faster and more focused start on their own careers.

- ***Benefits to taxpayers/legislators***: More tax money can now be devoted to decaying infrastructure, retiree entitlements, and public support for a rising underclass.

The scenario opens in June 2020, when ABC News is devoting a week of coverage to the remarkable success of the Corporate College model and the attendant decline in public support for traditional high school and college education.

Step 6: Identify Implications and Strategic Options

Once the scenarios were written and read by all participants, a final workshop was convened on September 26-27, 2007 to identify the implications of each scenario for the demand for Colorado community college services in 2020, as well as strategic directions the CCCS might take to be successful in any future world. The participants first conducted a SWOT analysis for each scenario, identifying its strengths, weaknesses, opportunities, and threats for CO community colleges. The implications are outlined below and the results of the SWOT analysis for each scenario are presented in Figures 9a-9d, below (see Appendix D for full page images of each SWOT).

Once the implications were identified for each scenario, the group turned their focus to developing a set of strategic options that Colorado community colleges and the CCCS might pursue in order to survive and thrive within each scenario. Discussion focused on the question: *What strategies will increase the demand for CO community colleges in 2020?* The strategic options developed for each scenario are depicted in Figure 10, below (see Appendix E for a full page image).

Implications and Options for Scenario A: Education = Job #1

Implications:

In this scenario, the war in Iraq continues and escalates into a Pan-Islamic World War draining focus and resources from domestic issues like education until 2011 when the opportunity to develop and bring to scale a new technology arises in Colorado. While people care about education and various civic leadership efforts such as the Governor's P-20 Council are underway since 2007, they have had little impact on the overall culture to become motivated to achieve high expectations.

Our main characters realize the opportunity inherent in the development of the "hydro-pod" technology (a version of hydrogen fuel cells). This new energy technology would mean the elimination of the need for foreign (or domestic) oil and other natural resources. They also realize that developing the technology itself was not enough to have the impact on the nation—

and the world—that was needed to bring an end to the war. They needed to not only develop the capability for the technology, but rapidly expand its production as well as the designs of cars and other machines currently using oil technologies. To "ramp up" this fast and far-reaching, the nation—with the state of Colorado at the epicenter—needed an educated and motivated workforce—in all fields.

"What if community colleges were THE path to a B.A., rather than just for those who don't fit up front right away."

--Envisioning the Future Participant

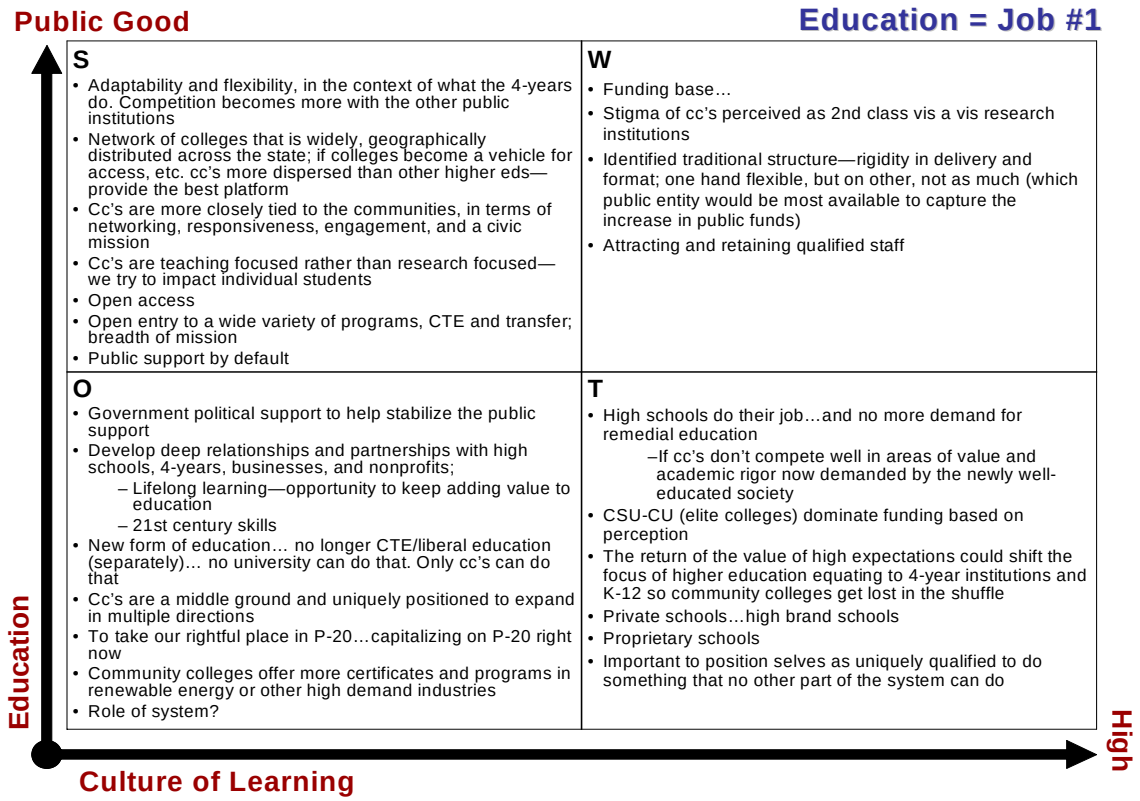
While the elements for success in education are present from the beginning, the turning point in this scenario comes from the somewhat serendipitous alignment of a set of factors and key characters, at the right place and right time. An alternative title for this scenario might have been, "the stars aligned." The opportunity to move forward with the technology was one factor as was the existence of a body, or infrastructure (of sorts) and leadership for collaboration in education and between education and industry—the P-20 Council.

The constellation of leaders also played a role in the scenario. First is the aging "baby boomer" professor-turned-state senator who becomes relentless in his focus on education, but also understands the need to "pass the torch" to a new generation of leaders. Second is the rising "hero" archetype found in Maria—a typical Millennial who in her early education was not engaged in school, but later found focus and meaning as her learning was increasingly tied to worldly causes. She's motivated to keep going and to achieve because she sees her contribution as part of something beyond her own personal success—she's motivated by the civic purpose inherent in her work and public activities, more than the economic benefits to herself. She wants to make a difference and stops at nothing in order to do so. Third, we have the pragmatic leadership of a Gen-X character in the new Governor who takes office after Governor Ritter's eight-year term. Although from a different party, this new Governor recognizes the benefits of the P-20 infrastructure and leaders, and opts to keep this in place—and even expand it—during his first term.

The scenario hints at the notion that it took the multi-generational, and multi-sector collaboration that came together during a time of both crisis and great opportunity in order to bring about the successful "Education = Job #1" campaign. Coloradans benefit by being at the center of this national cause and by producing several generations of entrepreneurial leaders who are valued for their economic and civic contributions alike.

An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented in Figure 9a (see Appendix D for a full page image).

Figure 9a: Implications for Scenario A: Education = Job #1



<u>Options</u>:

Community colleges have a tremendous opportunity, if properly prepared and positioned, to increase their relevance and demand for their services in the high public good/high culture of learning world. In order to benefit, they must remain agile, flexible, and able to adapt to changing times as well as changing industries. They must stay on the lookout for emerging industries—such as the potential within renewable energy—and invest in partnerships that tie the educational services they provide to jobs within the industry. They must also overcome some weaknesses and threats inherent in this world, such as competition from four-year institutions which become more appealing to greater numbers of students after high school since they are better prepared for college than at previous times in history. The demand for remedial education is likely to drop in this scenario. Community colleges can overcome this by firmly positioning themselves as THE path to the baccalaureate degree, developing stronger partnerships with K-12 and offering college courses earlier. Establishing community colleges as a key piece of a P-20 educational system (perhaps a 10th through 14th grade) is another way for community colleges to benefit in the high public good/high culture of learning world. Key to its success is the ability to obtain mission-driven funding as opposed to the current FTE model of funding for community college. Finally, coordinating efforts and leveraging resources and influence across the system

while eliminating competition among colleges also helps community colleges to succeed in this scenario.

To meet the challenges of this scenario, the CCCS must give greater consideration to the generational challenges and opportunities for learning and achievement. Community colleges would benefit from firmly positioning themselves as a key link in the chain to purposeful careers in technology and civic life. Stepping up efforts to collaborate across the educational spectrum (both with K-12 and four-year institutions) would strengthen community colleges' position within the P-20 system while also establishing the best and most appropriate "niche" for itself. Other strategic options include:

"Community colleges would have to be a place that students want to be as opposed to a place they can be—an institution of first choice."

--Envisioning the Future Participant

- Compete with the 4-year institutions (if high value on rigor, the 4-years will win out)
- Find best position within the P20 system and focus on that (distinguish community colleges within P20)—make community colleges THE path to the B.A.
- Make the case that community colleges provide the best "bang for the buck"
- Maintain strong public advocacy effort—in this world, public good/legislative role important
- Further develop business relationships
- Focus on quality—make sure all systems for community colleges are first-rate and desirable
- Focus on broad (full) mission—end enrollment-driven funding which limits ability to focus on full mission; must shift toward mission-driven funding
- Connect program development to emerging industry. Be on the cutting edge rather than the trailing edge.
- Better integrate career and technical education
- Reduce and eliminate the silos
- Implement a system-wide honors education program for community college students
- Even out entry requirements—agreements with colleges; articulation agreements

Implications and Options for Scenario B: Uncle Sam Knows Best

Implications:

In this scenario, the world very much resembles that of today—a large, reluctant-to-change public educational system swimming upstream against a societal and youth culture more interested in Paris Hilton, Britney Spears, and Hannah Montana than in learning or achievement. This world continues without much change from 2007-2020. There is support for the idea of education as a public good and some level of resources to match, but not enough to truly transform the system into one that leverages innovation and creativity to reach the highly tech-

savvy, gaming- and entertainment- distracted youth of today and tomorrow. It's as if society has just resigned itself to accept things the way they are.

"For the system marketing to function really well, colleges will have to work collaboratively, not competitively."

--Envisioning the Future Participant

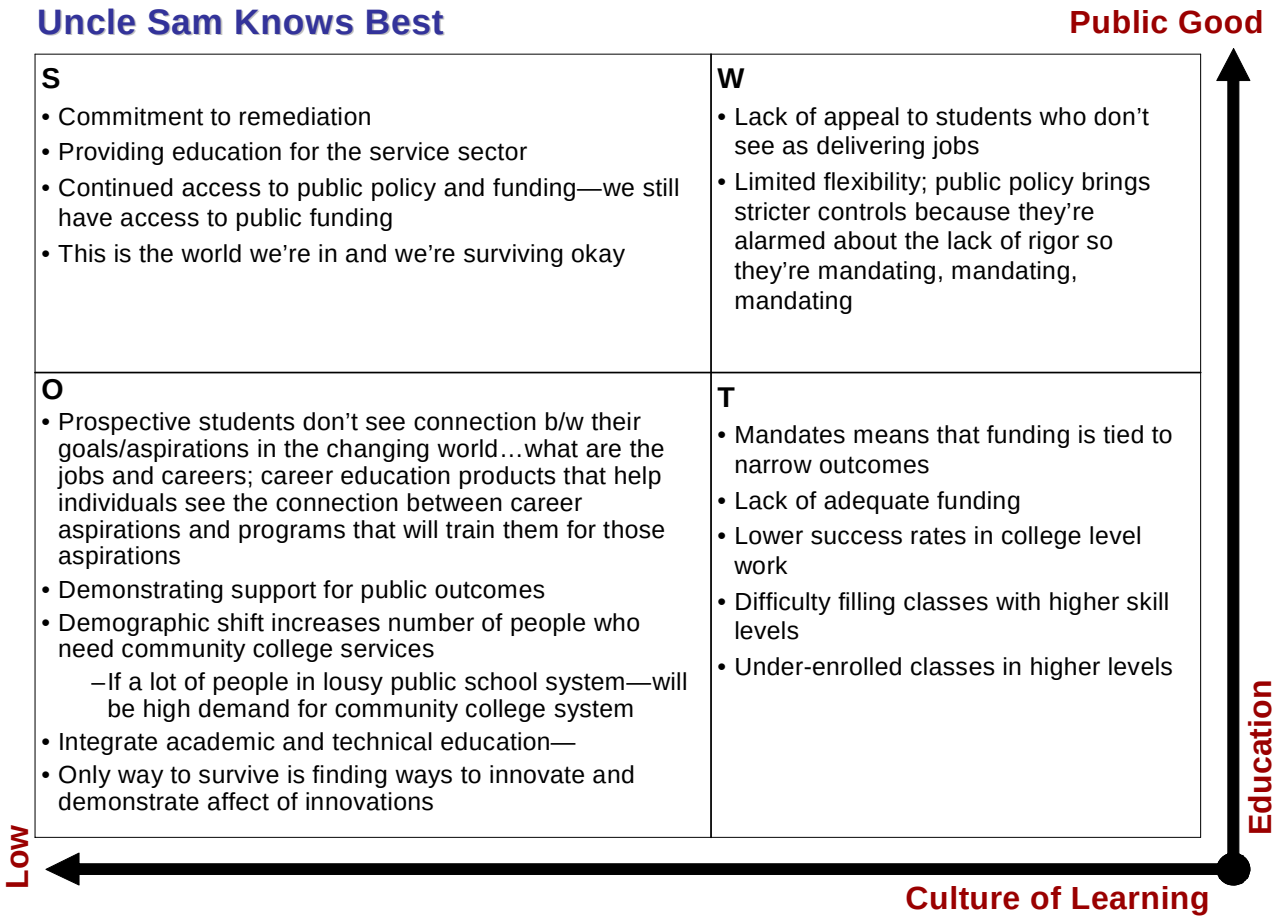
Technology itself has expanded and become so inexpensive and available to all that information—what was once the domain of learning in school—is easily accessible to just about anyone. What's the point of school when most of the jobs that are available do not require higher learning? Although some of the higher paying jobs do require more education, few youth readily see the relevance in staying in school—it's flat out boring.

Government keeps on trying, though, but does so through policies of command and control, over-reliance on testing—and testing *all the wrong things*—and the relentless pursuit of mediocrity. Quite frankly, public education exists—and is not under threat in this scenario—but seriously lacks any relevance or creativity to connect with its actual public. One gets the sense of a completely out of touch, and yet still revered, at least by parents, dinosaur institution. Beyond subtle hints and some nagging, parents, though, seem to leave it to the schools to figure out how to motivate their children.

As a contrast, readers get a brief glimpse of what life might be like in other states such as Texas when Maria's brother goes there and finds a state that is investing in the development of a better-educated workforce by tying degrees to job opportunities in key industries. Readers also hear a small bit about the outlets for creativity that do begin to expand by 2018 with more charter schools taking the best and the brightest into their fold. Still, by 2020, this "competition" does not seem to be enough, on its own, to spur any sort of large-scale reaction on the part of public education. In this scenario, it's same old, same old, all the way through.

An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented in Figure 9b (see Appendix D for a full page image).

Figure 9b: Implications for Scenario B: Uncle Sam Knows Best



<u>Options</u>:

Community colleges maintain a high demand for their services in this scenario by continuing their commitment to remedial education, providing education for the service sector, and continuing strong rapport among policy makers. Colleges struggle mightily to motivate and engage students in learning within this scenario and must turn to entertainment-focused "gimmicks" like getting celebrity endorsements in order to catch the attention of the youth culture of the future in the low culture of learning/public good world. If public policy is dominated by tight controls and lack of flexibility and incentives for innovation, reaching the student population will be even more difficult. Strengthening the connections between college and jobs is a good way to prepare for success in this world. Boosting creative efforts to engage students across the board is another way. Colleges may also want to improve student services, especially those focused on retaining students in school and supporting them as they learn the connections between school and employment opportunities. Finally, the opportunity to demonstrate results through measurement of outcomes would help increase public resources in this scenario.

To meet the key challenges of this scenario, the CCCS will need to muster up the institutional and political will to lead a change in the current system. Clearly, continuing on in the way things are today will have adverse affects on both the institution and our culture. The system would likely survive in this scenario, but it would not thrive nor contribute to the higher goals its mission sets for the state. In addition to strengthening its ties to career pathways, the CCCS would need to become the "best in the business" at finding ways to truly engage the celebrity-distracted youth culture in a way that motivates them to learn at higher levels. Additional options include:

"We don't want to come up with strategies that are forcing the colleges to do things that don't work. We want to come up with strategies that will help colleges do their job better."

--Envisioning the Future Participant

- Improve student engagement to get students to become interested in college
- Improve customer service in the college
- Become a better brand-use celebrity endorsements
- Develop a career-focused curriculum; help students see the connections
- Make the curriculum relevant to their life
- Expand concurrent enrollment statewide
- Implement Career Pathways: Bridge to Opportunity
- Focus on incentives to reach and keep students in school
- Market what the CCCS is doing well
- Pursue strong lobbying agenda
- Position community colleges as having a unique role in P20

Implications and Options for Scenario C: McDegree

In this scenario, society has pretty much given up on public education to provide the "fast learning" options demanded by both culture and industry. The void is quickly and easily filled by ready, willing, and able private companies who take the concept of learning anytime, anywhere, and in any way to a whole new level. They provide easy access, cheap tuition, quick degrees, and various "mix and match" options for students. They build on technological advancements to allow multi-tasking and extreme personalization to play a role (e.g., customize your own degree through fully personalized higher education (FPHE)). Public institutions, which have struggled to keep up over the years, are truly left in the dust in this world.

Culturally, the majority of the population, aside from a few holdovers like Ted, no longer values public education, never mind a thoughtful, traditional liberal arts education of any kind. In fact, getting a degree—for little effort and money—has become so common place, that there is a

"The key of it is, we will become McDegree if we keep the same systems and mindsets that we currently have."

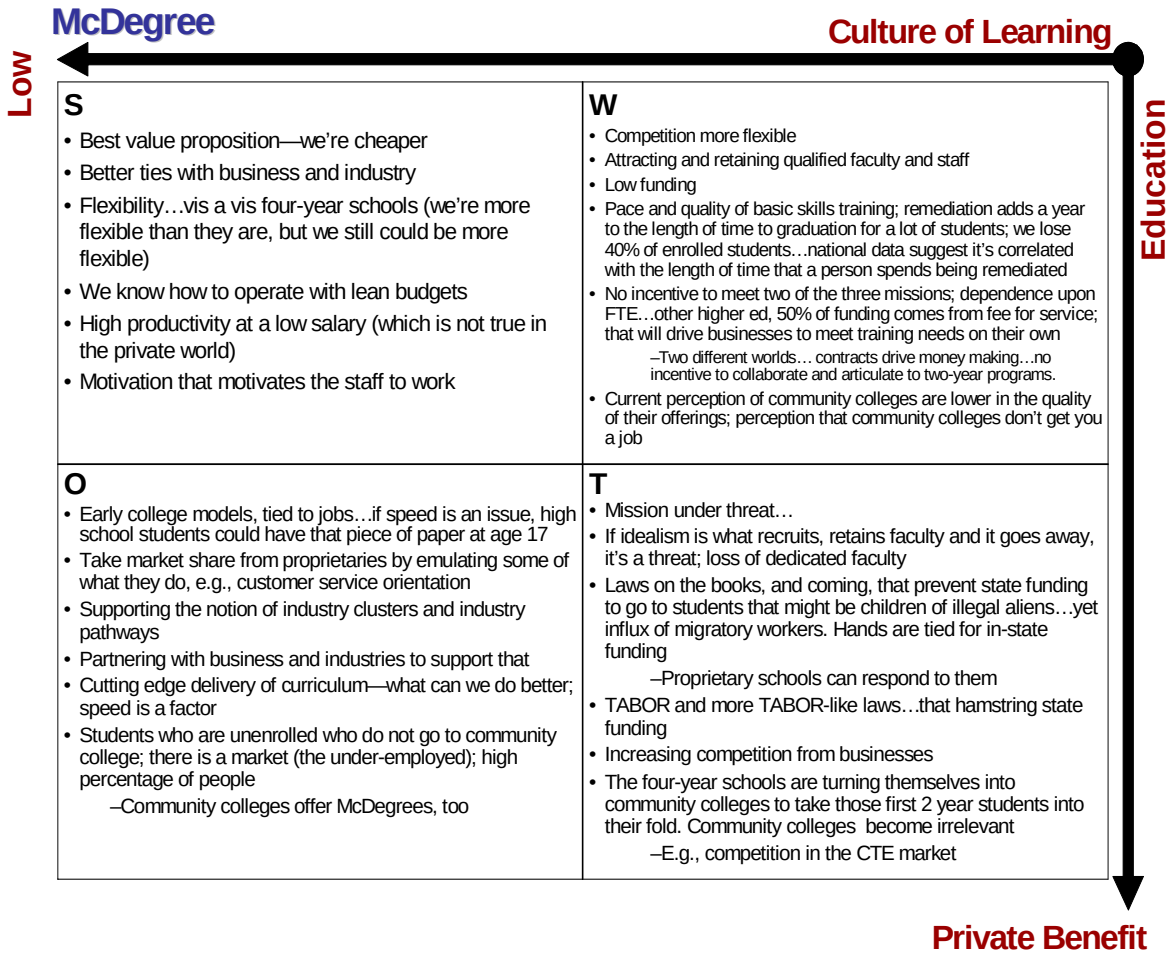
--Envisioning the Future Participant

tendency to sue institutions that resist the quick fix in favor of quality. Grading policies have been turned on their head in order to better meet the demands of "customers" reflecting the extreme distrust for the judgment of educators in favor of the mob rule.

Making matters worse, the tax-paying public—by now mostly made up of retired baby boomers—have little tolerance for continuing to support a publicly financed education system. A series of events unfold between 2007 to 2020 in an effort to help the public institutions compete, but ultimately, they are unsuccessful.

An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented in Figure 9c (see Appendix D for a full page image).

Figure 9c: Implications for Scenario C: McDegree



Options:

Community colleges will have a difficult time competing in this scenario without dramatically increasing their flexibility and ability to adapt and innovate quickly, in order to keep up with the changing demands of society and industry. Holding on to many of the "traditions" of higher education—even those as simple as the three-credit courses, or the notion of seat time as a measure for learning—is likely to hold community colleges back from the innovation that will be needed in order to survive in this private benefit/low expectations for learning world. Without question, the mission of community college itself will be under threat in this world. Community colleges will need to radically transform themselves in order to provide a higher quality offering, for less money. Opportunities to meet this challenge do exist, however. Colleges could begin expanding anytime, anywhere learning, focused on outcomes instead of "seat time," and improving the quality and variety of delivery methods for learning. Offering shorter-duration "courses" that help students complete programs in shorter periods of time might also help community colleges maintain an edge in the face of the "McDegree" competition. Expanding the number of early college models where community colleges partner with K-12 schools and offer programs earlier in their schooling combined with close ties to business and industry is another way for community colleges to prepare for this future. Proactively coordinating and partnering with industry clusters also helps community colleges maintain a multitude of programs and degrees within key industries. Finally, marketing services to students who are currently not attending community college—the un-enrolled and the baby boomers—is another way that community colleges might seek a competitive edge in this world.

To meet the key challenges of this scenario, the CCCS must truly innovate in order to compete. Not only is this world conducive to profit-making and entrepreneurial approaches, but it favors those institutions that are able to adapt extremely quickly and flexibly to meet the ever-changing demands of a fickle, unmotivated population. Public institutions may be able to compete and maintain their core values and principles if they become just as innovative (if not more so) as their competition. Further, by tapping into the strand of interest in social purposes that may be inherent within the Millennial generation (and of course remaining among the baby boomers) they might be able to capitalize on the best of both. Other strategic options include:

"We're suggesting a complete systems overhaul: outcomes-based. You don't have to be tied to semester courses, contact hours..."

--Envisioning the Future Participant

- Partner with leading industries and modularize job skills
- Partner with industries and allow them to help us develop the curriculum
- Always assess and assure that certificates are outcomes- and competency-based
- Continuously innovate delivery methods to accommodate students who are now the gaming generation (short term, fast, etc.); Put them in an environment where they can succeed
- Redefine the mission—value liberal arts, but blend it in, so they're getting 21st century skills in a package
- Constantly provide training and support to faculty

- Evolve calendar structure and get away from traditional. Think of a business model of continuous enrollment and just-in-time learning
- Develop system and individual college economic development and system-partnerships with local community
- Need to be a vital partner with economic development and business
- Develop early partnerships, P-20-provide some modules in high school
- Reward faculty based on outcomes, teaching & learning, not time
- Reduce barriers to innovation

Implications and Options for Scenario D: Pepsi University

Implications:

In this scenario, the 800 pound corporate gorilla dominates the education scene in every way, shape, and form. Brought on by declining affordability of public higher education, lack of quality in K-12, growing demands for a more highly-educated workforce due to globalization, and the slowness of public systems to adapt to changing times—big business gives up trying to "help," and simply moves in for its own benefit. Large corporations like Pepsi are able to set up shop, branches, franchises and establish well-regarded corporate "identities" within the education world, and society (and learners) eagerly respond. Pepsi University, Google University, Harpo University all represent the "in" brands of the decade and competition heats up among selective students to choose to attend the "best" brand. Corporate universities have the prerogative to be selective as the demand for their "product" is very high. Over time, they become increasingly selective and reach further into the educational pipeline to "lock in" the high achievers at early ages. Their influence begins to spread to K-12 education as well.

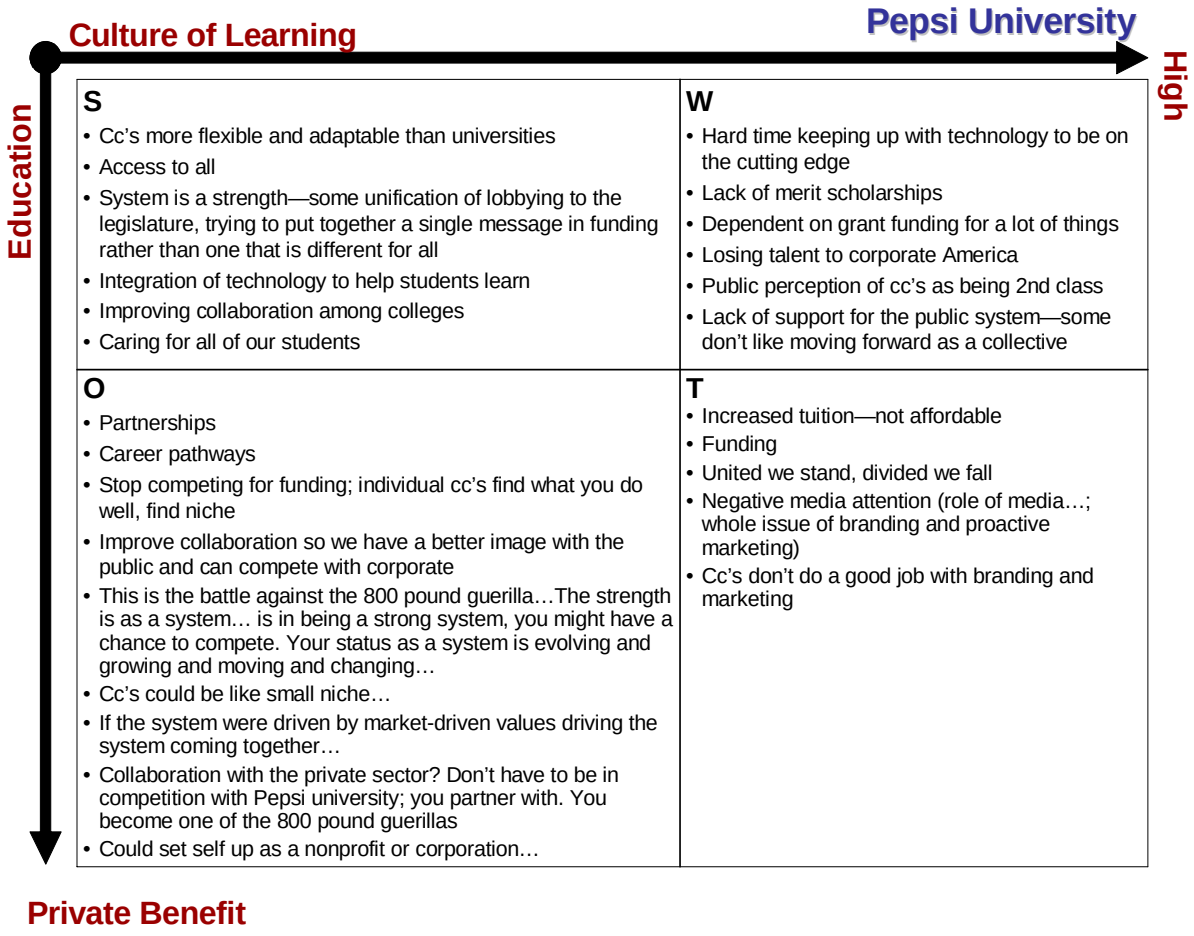
Public institutions are left to focus on the poor, under-served students who cannot pay much and public dollars are even fewer and further between. How can community colleges compete against these Goliaths, especially at a time when, socially, there is little regard for what used to be a civic purpose to education?

An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented in Figure 9d (see Appendix D for a full page view).

"In 2020, is there such a thing as 13 colleges or is there one system with all these branches...Or, are there 6 or 7 colleges that have done things better than the others?"

--Envisioning the Future Participant

Figure 9d: Implications for Scenario D: Pepsi University



<u>Options</u>:

As difficult as it will be to compete against corporate goliaths, Colorado community colleges do stand a chance if they become well coordinated and organized as a system—and perhaps even one that operates in a "corporate" manner. In this private benefit/high culture of learning world, the "system" itself, is a strength, if it can become a high quality "brand" desired by students who seek more variety and flexibility in their educational opportunities than the corporate "tracks" provide. Individual colleges may need to identify and find their particular "niche" within the market in order to compete. Increased collaboration with the private sector, especially those mid-sized companies that are not likely to create their own universities, but rather seek to partner with higher education, is key. Finally, developing strong and well coordinated career pathways for students will be essential for community colleges to survive in this scenario.

To meet the key challenges of this scenario, the CCCS needs to decide whether to compete directly with the 800 pound gorillas, possibly by becoming one, or to identify another market niche upon which to focus. Chances are that although some of the largest worldwide corporations would be likely to create a higher education "brand," not all will. Smaller, mid-

sized companies may look to partner and collaborate with public institutions to offer more variety in the available educational opportunities. Some set of learners may seek to gain multiple skill sets and experiences rather than become "locked in" at such an early age.

"Halliburton has an extension school and you—in Trinidad—are a franchise. You rent space. You're the platform. Corporate Universities provide the content."

--Envisioning the Future Participant

Perhaps community colleges can compete by being more agile and flexible than the corporate behemoths that are big and bold, but slow to move or change once established? Additional strategic options for community colleges in this scenario include:

- Be aggressive and clear on marketing strategies
- Focus on best niche—can't be everything to everyone
- Collaborate to form a more unified, seamless system; operate as a system of coordinated parts; possibly join together as one system, with branches, to survive and compete
- Partner with smaller companies (that don't want to start own university) and other higher educational institutions—fill that niche that's not getting filled by corporate U's (perhaps industry clusters or cc's operate as franchises of the corporate universities)
- Community college system transforms into a nonprofit as a platform that can receive government grants, but not dependent on government funding
- Focus on new/emerging market: baby boomers seeking new careers, but not interested in the corporate track—focus on the "senior brand"
- Look out for global opportunities to partner with higher education institutions from other countries

"Redefining ourselves is what we have to do in this world. If you're not going to compete, you're going to "niche-out." But, what you don't want to do, is simply be the place of last resort."

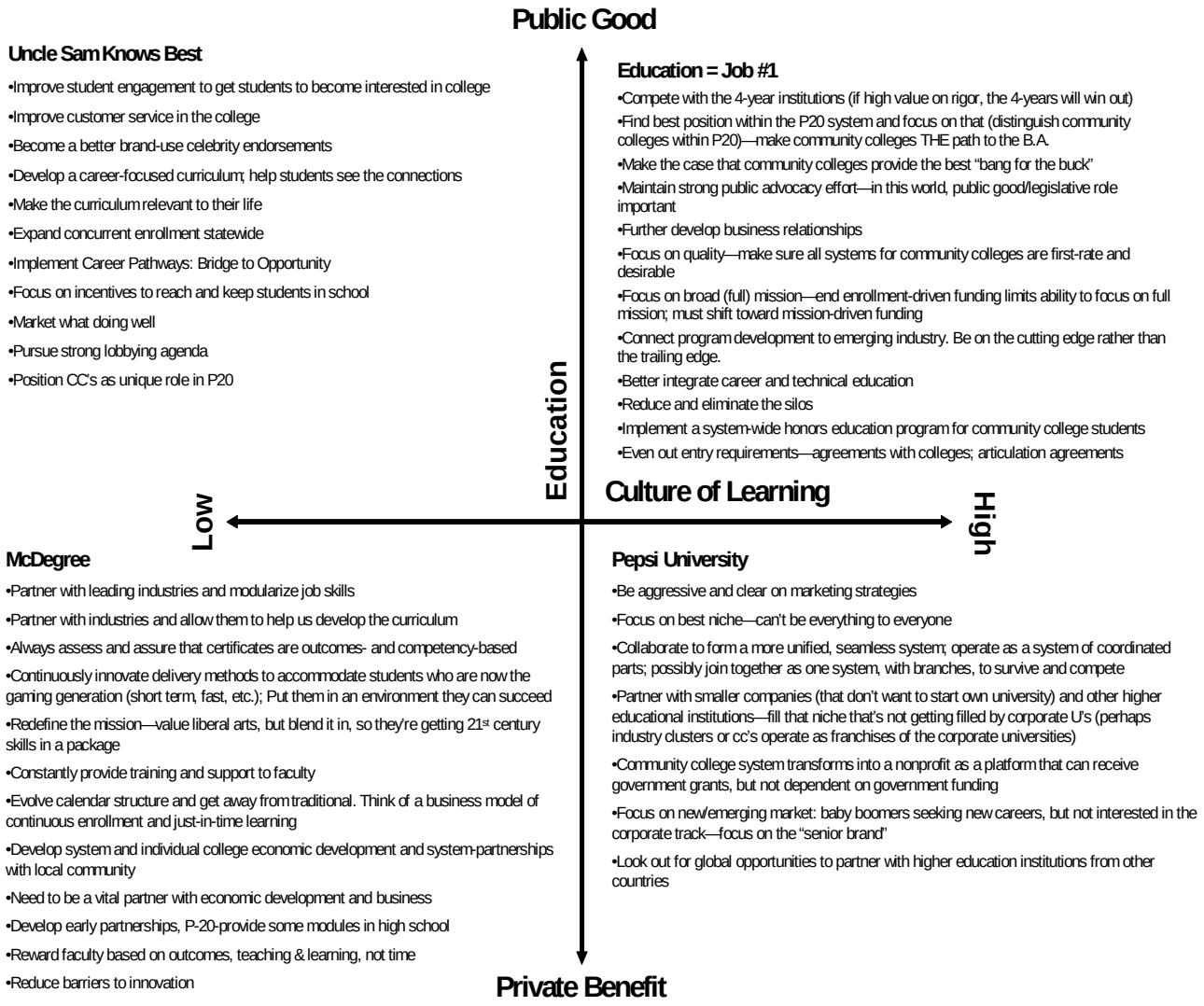
--Envisioning the Future Participant

Strategic options provide the set of strategies the CCCS should pursue to prepare for a particular future. The strategies presented were developed for each scenario with the assumption that they year was 2020 and the specific world described in each scenario was true. The work group developed the strategies as the best way to continue meeting the current CCCS mission in the year 2020, given each scenario context. An overview of the strategic options developed for each scenario is presented in Figure 10 (see Appendix E for a full page view).

Figure 10: Strategic Options for the CCCS

Strategic Options:

What strategies will increase the demand for CO community colleges in 2020?



Step 7: Monitoring Trends

As time evolves and events unfold, having a clear method to monitor developments toward a particular future will be critical to inform the CCCS leaders when to act, and which strategies to employ. The group did not have time to discuss this or to identify trends or indicators that should be monitored for each scenario. The CCCS leaders anticipate incorporating this element into their ongoing strategic planning work in the future. Some possible trends and events that could signal the development of each of the four scenarios are presented in Figure 11, below.

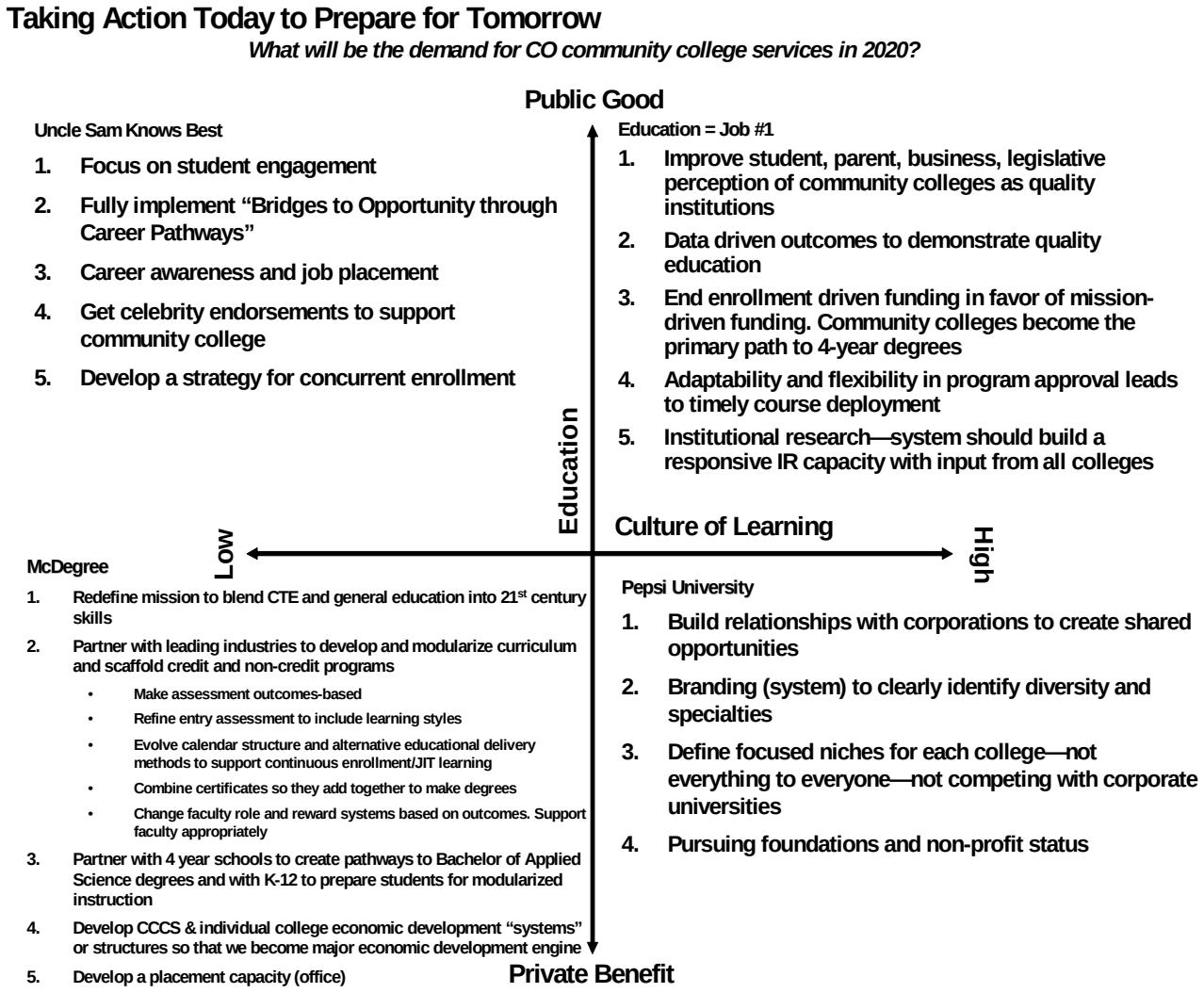
Figure 11: Possible Indicators for Monitoring Trends in the CCCS Scenarios

UNCLE SAM KNOWS BEST	EDUCATION = JOB #1
• Efforts to innovate and transform public education not succeeding on a large scale, either through organized resistance or simply through a "regression toward the norm." • Continued focus on entertainment and celebrity culture on the part of youth without any connection to larger economic or civic purpose for achievement and learning • Educational policies that impose rigid accountability measures that limit innovation and creativity • Competition from retiring baby boomers who take many of the available jobs—especially those that require experience and higher levels of education—displacing the youth and suppressing their need to become educated • Outsourcing of jobs that require education	• The proliferation of the Iraq war and/or its expansion to other nations • Rising costs of oil and gas • Continued environmental impacts of global warming, signaling the need for alternative energy sources • News of potential new energy development sources that could be brought to scale within the next 15 years • Signs of new styles of leadership, featuring pragmatism, collaboration, and policy entrepreneurialism, from the Gen-X and Millennial generation • Continued trend of youth being motivated by civic purpose to learning and achievement in order to solve global and local problems
McDEGREE	**PEPSI UNIVERSITY**
• Increasing popularity and utility of proprietary and/or degree mill institutions • Continued failure and perceived lack of value in public education • Policies that limit public institutions' abilities to innovate to compete • Increased popularity of personalized—anytime, anywhere, in any way—learning • Increased focus on the purpose of education being to get a job over a broader, more liberal arts or civic purpose	• Increased demand for industry-focused higher education that public institutions cannot by themselves meet • Establishment or expansion of corporate sponsorships in higher education and/or corporate universities • Decrease in public funding for higher education

Step 8: Taking Action Today to Prepare for Tomorrow

The next step involved determining the best action steps that the CCCS could take today in order to become better prepared for the world of tomorrow. Based on the strategic options, participants were asked to prioritize at least four strategies for each scenario. Action steps recommended for each scenario are shown in Figure 11 (and also in Appendix F for a full page view).

Figure 12: Action Steps for the CCCS



Robust Options: Recommendations to the CCCS Board

The next step was to identify those strategies deemed to be the most "robust" of the options. These were strategies that helped the CCCS to be successful in two or more of the future scenarios. The group spent time identifying the common themes across each of the action steps and used those as a basis for developing the following recommendations.

This discussion revealed the critical importance of enabling Colorado community colleges to *innovate* in order to successfully *compete* in the ever-unfolding 21st century world. This became the group's overarching theme for this entire body of work. By implementing the following robust options, the CCCS can become well prepared to face any possible future.

Recommendation #1: 21st Century Mission

The workgroup's exploration of the external environment made clear that the knowledge and skills required for students to succeed in our changing world are changing as well. Technological literacy, critical thinking and problem solving ability, communication and collaboration skills, and an understanding of globalization are all part of essential curricular content in the 21st century. A number of organizations promote curriculum frameworks called "21st century skills" and advocate for their integration in state and local K-12 education systems.[2] Although there is no commonly accepted list of 21st century skills for higher education, the workgroup agrees that the emphasis on higher order thinking, use of information technology, innovation, life, and career skills, as well as civic and health literacy and similar "21st century skills" is important in higher education and should be an organizing theme for community colleges.

Make Colorado community colleges the place to learn 21st century skills

- Position CO community colleges as the most uniquely qualified institution—within the P20 spectrum, and in comparison to the proprietary degree-granting institutions—to deliver 21st century skills
- Provide community college educators and leaders with skills, incentives, resources, and a clear action plan to successfully prioritize 21st century skills
- Proactively address the needs of Colorado's changing population, particularly underserved students
- Partner with business and industry to strengthen and highlight community colleges' focus on 21st century skills
- Begin now to build and retain the creative, innovative, and skilled faculties and staffs the CCCS colleges will need in 2020

Integrate 21st century skills in everything we do

- Identify and reward best practices in integrating 21st century skills

[2] See the Partnership for 21st century skills at http://www.21stcenturyskills.org/ or enGauge, *21st Century Skills* ©Learning Point Associates at http://www.ncrel.org/engauge/ .

- Increase opportunities for academic integration to occur such as encouraging the blending of CTE and general education
- Globalize our colleges faculties and curriculum
- Assess for competence in 21st century skills

Recommendation #2: Student Engagement

Encourage system-wide support for student engagement

- Consider developing a system-wide vision for student engagement that would articulate desired outcomes, multiple pathways and methods, best practices, and support available
- Encourage every college to have a plan for addressing student engagement
- Review and include recommendations from national CCSSE survey
- Consider possibilities of implementing the CCSSE survey

Recommendation #3: Corporate Relations & Partnerships

Provide support to enhance partnership opportunities among colleges and business and industry

- Invest and focus in this area so that community colleges can become more pro-active, strategic and innovative in developing long-term relations with existing corporations and emerging industries
- Consider ways to build on strengths of local relationships and opportunities while supporting and leveraging system-wide strategies
- Consider establishing a system-level coordination effort to strengthen corporate relations, system-wide

Recommendation #4: Perceptions

Improve the perceived value of community colleges in Colorado

- Develop a shared agreement on who and what best value community colleges in Colorado offer—prioritize "best value" for the changing times
- Consider linking "brand" to concept of being "THE" place to obtain 21st century skills

Recommendation #5: Research and Accountability

Strengthen the focus on accountability and institutional research, system-wide

- Identify thoughtful, appropriate questions to drive indicators and measures for accountability
- Develop capacity to collect and analyze data

- Develop capacity to utilize data to drive decision making and system improvement
- Disseminate relevant accountability data to stakeholders as part of effort to improve perception of value of community colleges

Recommendation #6: Advocacy Agenda

Develop a long-term strategic advocacy plan for the state legislature, Governor's office, Department of Higher Education, and the federal government that includes improving state funding for the full community college mission

- Become more pro-active, strategic, and long-term focused in advocacy efforts
- Identify and eliminate barriers to innovation and competitiveness at the local college and system-wide level
    - Promote seamless transitions by encouraging a shift from funding by FTE to funding by "mission" so that colleges may innovate and compete.
    - Explore impacts in other states that have moved toward mission-driven funding
- Build support and capacity for education to career pathways
- Consider pathways from GED to college

Recommendation #7: Career Placement

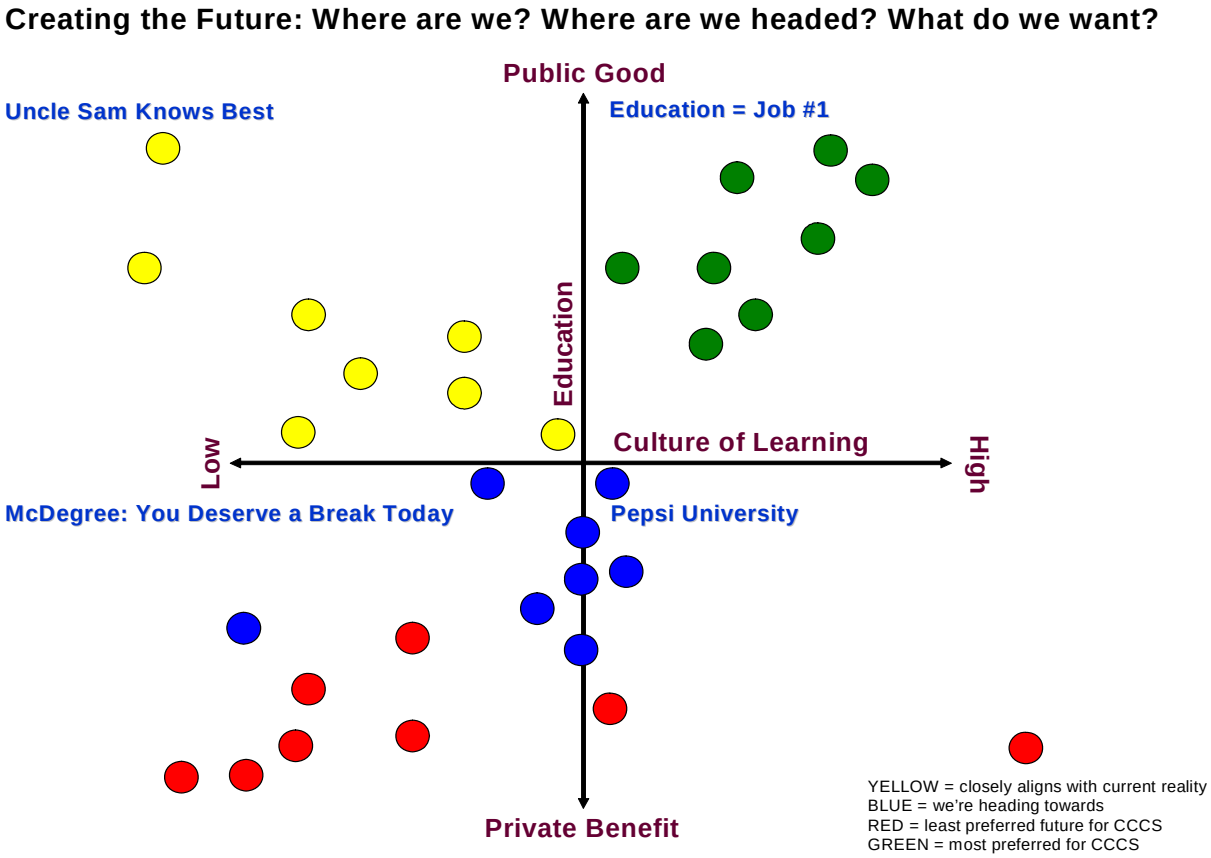
Formalize process and infrastructure to increase the number of graduates who are directly placed in jobs

- Focus on career awareness and job placement—pathways to career placement
- Strengthen role of student advising, career aptitude assessments, and curricular alignment
- Consider creating "success centers" at each college
- Consider implementing (and supporting) individual study plans for each student
- Consider improved technology enabled strategies at the system level

Where are We Now? Where are We Headed?

As the workshop drew to a close, participants were asked to identify which quadrant they think is the current reality (yellow), the future in which they think the CCCS is heading (blue), the least preferred future (red), and the most preferred future (green). Results appear in Figure 12, below.

Figure 13: Where are We Now? Where are We Headed?



Additional Recommendations for the CCCS

The scenario planning process helped representatives from the Colorado Community College System to imagine four possible and plausible futures within which the system and its colleges might exist and operate. Scenarios describing what life is like in these four worlds were developed to provide a backdrop for future planning. Strategies have been outlined to steer the CCCS toward success in any possible future. These steps are the first in an ongoing process of planning for what lies ahead and staying ahead of the curve. The following recommendations are offered as the CCCS considers its next steps:

1. **Present results of scenario planning process to and discuss final report with the State Board for Community Colleges and Occupational Education.** Engaging the state board in conversations about the future and relevant strategies to survive and thrive in any future is an important next step. The scenarios provide a unique way to convey an image of the future to any audience. Consider scheduling a formal time for the board to review the scenarios and their implications and options and to contribute their ideas on potential strategies for success within any scenario. Document the board's insights and incorporate their ideas into the CCCS's final strategic plan.

2. **Consider ways to engage the broader community in conversations about the future demand for Colorado community college services.** While the CCCS and college leaders bear the bulk of responsibility for the future of the system, the broader community will play an important role in all four scenarios. Scenarios—as stories about the future—offer a unique way to convey an image of the future to any audience. Consider publishing the scenarios in community or campus newspapers, posting them on web sites, and other vehicles for disseminating the scenarios to the public at large. Board members and the CCCS leaders also might want to present the information to Chamber of Commerce meetings, business organizations, student organizations, parent organizations, civic leaders, and other important community-based organizations. Consider scheduling a series of community conversations across the state focused on the scenarios, their implications for the CCCS, and seek out community members' recommended actions for the future. Document the insights of the community and incorporate key ideas into the CCCS final strategic plan.

3. **Establish ongoing mechanisms to monitor trends, communicate them, and analyze their implications for the CCCS.** Once a sense of the possible futures is articulated through the scenarios, the CCCS will need a way to monitor which direction seems most likely to be unfolding. Consider establishing an ongoing "Futures Council" composed of key college and community stakeholders to take responsibility for monitoring trends and reporting on them over time. This group may include members from the original workgroup or may expand its membership to include new stakeholders. The Futures Council would meet regularly (perhaps quarterly), discussing the trends to determine which scenario appears prominent at certain points in time. The Council would also review the recommended strategies, revising as needed, and sharing their recommendations with the CCCS leaders. Such a mechanism offers the CCCS a way to remain constantly focused on the evolving future, maintain a proactive stance and

strategic edge relative to the emerging future, and anticipate the necessary changes along the way. A Futures Council would also help, over time, to build and strengthen the CCCS' "future-focused" culture and help ensure that the appropriate capacity exists to manage the future as it unfolds.

4. **Translate robust and strategic options into a concrete action plan that guides program implementation and operations.** While the robust and strategic options developed during the scenario planning workshop are a good first step, they do not, by themselves, represent a comprehensive strategic plan. The CCCS leaders may want to formulate a more concrete action plan, based on those steps outlined here, incorporating feedback from the board and community, and positioned within the specific scenario and time-bound context identified through trend tracking (e.g., a 1, 3, or 5 year timeframe and plan, as identified by the Futures Council). Taking this step also gives the CCCS the opportunity to revise any strategic steps as needed. This step also provides an opportunity to align the strategies with its short- and long-term investments.

Conclusion

The scenario planning process that unfolded over the last several months has helped participants anticipate four possible futures, identify relevant strategies to ensure the CCCS's success in any future, and position the CCCS to become prepared for the future. By considering four possible responses to the focal issue— *What will be the demand for Colorado community college services in 2020?* —the Colorado Community College System has successfully begun to take the long view[3] in its strategic decision making. Careful implementation of robust and strategic options and monitoring of ongoing trends to ensure that options are well-aligned with the future context as it unfolds, will contribute to the Colorado Community College System's ongoing success as time marches steadily toward 2020.

[3] Schwartz, P. (1991). *The art of the long view: Preparing for an uncertain future*. New York, NY: Doubleday, Currency.

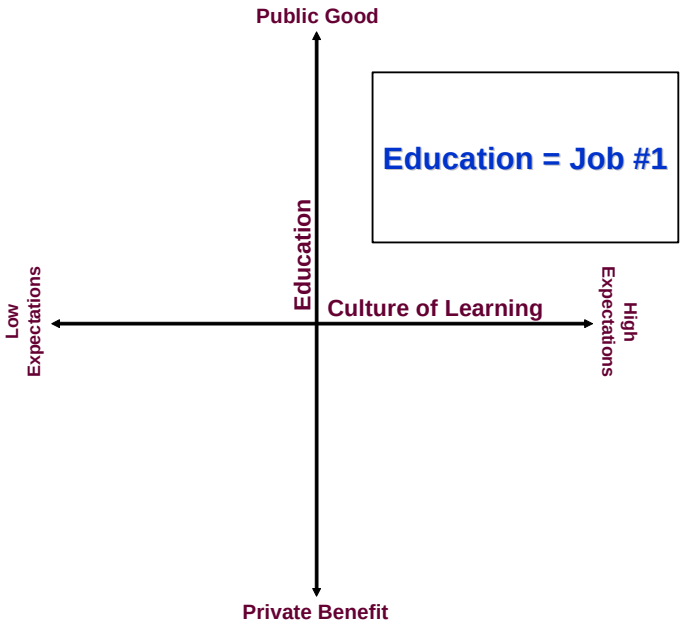
The Future Demand for Colorado Community College Services in 2020: Four Scenarios

Scenario A: Education = Job #1

Education = Job #1

Abstract

In this scenario education is viewed as a public good and there is a shift to a culture of high expectations and rigor, although it takes a while to get there due to the feeling that something big has to occur to cause this shift. The story moves from a perceived complacency in these areas as we follow the lives and interactions of two main characters, Sam Smith and Maria Martinez through a series of events that helps society realize how much better things could be. This realization comes after some very drastic events occur and stems from a need for a highly educated workforce in a few key industries, especially renewable energy and nanotechnology. In reality there are many more areas to consider.



Smith, born in 1944 and a member of the baby boom generation, spent the bulk of his career as a college professor before becoming a state senator, and special counsel on higher education in Colorado. Martinez, a Millennial born in 1988 and a former student of Smith's, demonstrates the potential of the burgeoning "hero" generation to focus on solving public problems in unique and innovative ways. Both become involved and active in the Governor's P-20 Education Council, which is continued throughout the administration that follows from 2014-2020. Society remains complacent about education from 2007 to 2012 when suddenly Colorado is presented with an opportunity to play a role in ending the long-running Pan-Islamic World War by developing and bringing to scale a new technology that will end the US' dependence on foreign oil, once and for all. Both Smith and Martinez recognize that developing the technology for hydrogen fuel pods (Hydro-Pods) is one thing. Developing it and bringing it to scale on a level that would impact the nation, and even the world, is another. Doing this would require a newly educated workforce to take on multiple roles within this and related industries. In 2012 there is a turning point when Smith and Martinez team up to launch the Education =Job #1 Campaign that re-focuses Colorado on building the strongest P-20 public education system in the nation. The scenario opens with news clippings introducing the main characters and then unfolds through excerpts from Sam Smith's journal and copies of letters he received from Martinez.

THE YEAR: 2020

MEET FORMER SEN. SAM SMITH

MountainReader.com

Smith to be Honored by Governor Simon

By George Grant
Mountain Reader
September 4, 2020

Former State Senator Sam Smith, 76, is set to receive the state's highest honor for civic leadership tonight. Smith, who for the last five years has served as the Special Counsel to the Governor for Higher Education Issues, retired this June after more than 46 years in public service. Tonight he will receive the prestigious Civic Leadership Lifetime Achievement Award.

Smith was a Professor of Public Policy at CU Boulder from 1974 through 2014. He served in the Colorado State Senate from 2006 to 2014. In 2015, after completing two terms, he was appointed by the Governor to become Special Counsel for Higher Education.

Smith became known as a thoughtful problem-solver during his tenure in the Senate by making education his top issue, serving as Co-Chair of the Governor's P20 Education Council from 2012 to 2014 and successfully co-leading the Education = Job #1 Campaign with his former student and newly appointed President and CEO of the Metro Denver Chamber of Commerce, Maria M. Martinez during that time. The E-J1 Campaign helped

MEET MARIA M. MARTINEZ

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Martinez—Youngest, First Female, and First Latina—Picked to Lead Metro Chamber

By Jody Phaley
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The Denver Metro Chamber of Commerce Board of Directors yesterday picked Maria M. Martinez to be its new President and CEO. Martinez, 32, is the youngest person to ever serve in that role, the first female, and also the first Hispanic. Ms. Martinez will replace outgoing President Ron Carter, who announced his retirement in June.

"Martinez brings a wealth of wisdom and experience to this position," offers Chris Barrett, Chair of the MDCC, "She stood out well above the other applicants and both her age and accomplishments are viewed as assets by the board." "Maria Martinez understands every aspect of economic development—from technology advancement to R & D to incentives to product development and especially, education—she has experience in all of it," adds another longtime MDCC board member.

"I think Maria is an excellent choice to lead the Chamber into the future," says Carter, "Who better to execute our vision than this bright, energetic professional who has not only distinguished herself in the fields of alternative energy, nanotechnology, public affairs, economic development, and education but has consistently shown leadership, innovation, and dedication to advancing educational and economic opportunity throughout our state. She is a gift to the state and a true gift to the Metro Chamber."

Maria M. Martinez grew up in a poor, west Denver neighborhood. The daughter of Mexican immigrants, born in Denver in 1988, Martinez graduated from Lincoln High School in 2006, participating in its renowned *College Now* program that helped her earn college credits while in high school, propelling her into college at CU Boulder by 2007. Graduating with honors in 2010, she earned a dual degree in business administration and environmental science. Ms. Martinez served as Policy Director for the Governor's re-election campaign in 2010 before accepting a position as Director of Business and Partnership Development for RENew Energy Company, a Boulder-based firm specializing in the development of renewable energy technologies. During her four-year tenure at RENew, When RENew developed the key to renewable energy through hydrogen fuel sources, Ms. Martinez was the driving force—securing key partnerships and investments with government, universities, and private industry—behind their pioneering efforts to develop the key to hydrogen fuel sources developed through nanotechnology, known as the Hydro-Pod.

When the nation was still embroiled in the Iraq war, in 2011, Martinez, a natural leader, was among the first to organize the nanotechnology, energy, and bio-

solidify public support for a strong educational system to develop the new Hydro-Pod energy economy—and a comprehensive policy and tax structure to support it.

Ms. Martinez together with the Governor will present the award to Sen. Smith tonight at the Seawall Ballroom at the Denver Center for the Performing Arts. A scholarship fund for high school students showing promise in science and technology for the common good has been set up in his honor. Donations can be made online at www.scienceforgood.com.

science industries together with government and educational institutions to bring the innovation to scale. In 2013, Martinez went on to serve as Vice President for Public Affairs for the National Renewable Energy Laboratory (NREL). Her success in that and every role as well as her ongoing commitment to the common good made her the Governor's top choice for Director of Economic Development in 2015. In the last five years, she has distinguished herself in this role, yet again, through her unique ability to forge collaboration, public-private partnerships, and solve complex problems for the common good of Colorado.

In addition to her professional accomplishments, Martinez has served on the Governor's P-20 Education Council since 2010 and as one of its Co-Chairs from 2012 to 2014. As Co-Chair, Martinez helped orchestrate the much-heralded turnaround of Colorado's public education system. When the nation could no longer tolerate the Pan-Islamic World War, Martinez knew that stopping the war was contingent on the nation's ability to eliminate its reliance on foreign oil. . She also knew that her company's development of the technological solution was only the first step. A strong public education system that not only expands opportunity for all Colorado children, but builds a strong pipeline of educated citizens well prepared in the science, technology, engineering, and mathematics fields was critical to bringing it to scale In 2012, working in partnership with former State Senator Sam Smith, who is now Special Counsel to the Governor for Higher Education Issues, Martinez launched the Education=Job #1 Campaign (E=J1 Campaign) that helped solidify public support for a strong educational system—and a comprehensive policy and tax structure to support it.

Ms. Martinez will begin her new role as MDCC President and CEO on October 1.

Excerpts from the Journal of former Senator Sam Smith, prepared for a forthcoming publication of his memoirs.

INTRODUCTION

In preparation for the upcoming memoirs to be published about my life, I have compiled a chronological set of highlights from the journal I have kept since 2007 when I began my public service in higher education as a State Senator.

In 2007 I ran for State Senate and got into politics because I was and still am motivated by the education system in America. As a retired professor it's hard not to be. In my years I have seen the education system and more specifically the community colleges in Colorado go through a lot of changes, however, I started a journal in 2007 to track the events that led to the great success that community colleges and higher education are today in 2020. Let's take a trip from 2007 to 2020 and see how we got to where we are today…..

JOURNAL HIGHLIGHTS

January 10, 2007 – I reached for my morning paper and saw the headline "America Slips Behind and Leaders Ask Why." That, combined with the never-ending headlines about the never-ending war, "285 Soldiers Killed in Iraq Today," are what motivates me to write this journal. I am a semi-retired professor and because of headlines like this, I made my move into politics last year by running for the state senate, and I am so glad that I won! I start my career as a state senator this day in 2007 to make a difference. I will also continue to work as a Professor, although part-time, for a few more years. As I continue to read and watch media reports, I realize America is losing its place as the world's premier power.

As I watch the media reports on the war, I realize this war is really taking its toll on this country. It has diverted our attention away from important domestic issues. Even the Presidential candidates are not talking about education. I

sure hope this war ends soon. I wish I could do more to bring that about. For now, I think I've found my cause—education. The state of education today is that higher education in Colorado is ranked 48th out of 50 on state and local support for higher education per capita and 32nd in K-12 per pupil funding. We have emerging institutions like the University of Phoenix, College America, Devry, and a plethora of other institutions offering highly specialized degrees with a very short time commitment. Everyone is out to find the biggest bang for the buck. Community colleges are doing well. Enrollment and demand is up, but there is concern about the state's ability to sustain them in rural areas. So why do we continue to slip behind? What is going on?

I am at my office and am checking my calendar to meet with some others that may be wondering the same. In this meeting we will discuss some of the up and coming reform initiatives, such as the Governor's P-20 Education Council. I also have meetings with business and community leaders; maybe this is the place to start. After all, these are the people that deal with the consequences every day.

June 2, 2008 – It's been nearly 1 ½ years since I became state senator and since that time we have made some strides on education, but still not enough. Sometimes it feels like we're just swimming upstream—against a tide of a culture of low expectations. The Governor's P-20 Council has been a success in at least bringing some alignment and new resources to the system, but it is still not enough. After all my meetings today, I opened the paper to finally read what I feared but suspected, "The World Council of Associations for Technology Announces India as World Tech Leader." I wondered when this would finally happen. This did not come as a shock to me but it might shock many Americans who are used to being number one. In my mind, the fingers point to education. India clearly saw the need for more technology in the classroom as we have failed to see in America. But, obviously India's investment proved to be a good one.

If only we could pull together to create a massive investment in education, especially in the science, technology, engineering, and math fields. We have some pockets of success, of course, as we always do, but to compete with India and China, we really need to expand that to all students. There is so much complacency—if only we could find a way to cut through that. I want to shout, "Wake Up America!" Maybe the next President—whoever that turns out to be- will focus on education on a grand scale. I sure hope so.

October 14, 2009 – The headlines continue to be bleak, but the smoldering has reached a boiling point – "Americans Fed Up! Stop This War Now!" That combined with yesterday's news, "World Supply of Oil Near End. Iraq Stockpile Remains Last Source for U.S." is enough to scare the bejeezers out of me!

As I begin my re-election campaign, I certainly thought we'd be finished with this war by now. Instead, we're getting into it even deeper, and it has escalated to the Pan-Islamic World War with multiple Middle Eastern and Asian nations and sects banding together to fight and destroy the Western world. I was hopeful that the new focus and interest on developing renewable energy sources might yield sources of energy that could be produced domestically, that would help eliminate our dependence on foreign oil. But all the efforts that have gone into ethanol production and so forth just haven't been at a scale that has made a significant difference. We need a breakthrough—maybe the hydrogen fuel pods that are currently in development. Still, even if they can develop the technology, whole production systems would have to be built to bring it to a scale that would make a key difference in our consumption choices. China has done a lot already and really ramped up pretty fast. They have the educated workforce, though. That has been the difference. We need to do the same. I know what the priority issue has to be again – education. I am glad to see that the new President is beginning to make this the center point of the new administration—and they've really put together a great team to do it. With their support from the federal level, Colorado could be well positioned to play a leading role on this front for the nation. But we in Colorado can't wait for the Feds to act. After watching the successes of India and China, I realize we need to put an emphasis on accessible higher education opportunities to further educate a strong workforce to ramp up on new energy production and become competitive in the world.

As I speak on the campaign trail, the response seems skeptical. While people in general are somewhat concerned about education, many of their own individual lives are not affected. They seem more concerned about national security, social security, health care, and of course the trappings of entertainment and gaming. Second Life? Huh, how about working on your first life? They still care about education but the other issues present stiff competition.

I am refreshed and even somewhat hopeful, though, as I get to know my new Research Assistant, Maria Martinez, who is helping me with my new study on the impact of nanotechnology on the renewable energy industry in Colorado. Apparently a new firm called RENew Energy Company is using nano-tech to develop a new kind of hydrogen fuel pod. It seems promising. Maria is an inspiration—so different from me and obviously from another age—surprisingly sharp, amazingly skilled at multi-tasking and interdisciplinary analysis and quite mission-driven. Ah, that youth culture, what do they call them, the Millennials? Maybe Neil Strauss' predictions about this up and coming generation will prove to be true. Who knows, but for now, I am glad to say that I have discovered an as-yet untapped resource.

I've decided to also get her involved in the P-20 Council. She seems to be very passionate about education, probably stemming from her own life story. She recognizes how the advanced opportunities she received from that *College Now* program in high school pulled her up and into the path of opportunity. Besides, I'm tired of hearing all of us old folks talk about education—why not include some of the younger people's voices. After all, it is they we are trying to reach here. Besides, I'm going to need her help to stay on top of things while I focus on my re-election campaign.

November 10, 2010 – Well, I won but the campaign took a lot out of me. As I begin to settle in, I notice a different feeling. The tensions are building and the issues are being defined. The never-ending war continues. What will it take to bring it to an end? Our aging infrastructures are beginning to fail and new ones are beginning to be developed but without the workforce needed to maintain them. The baby boomers are retiring and not spending like they used to, so our economy is shifting—and experiencing a downturn. Americans are healthy and living longer, and that's a good thing, but it is also putting so much pressure on the social system. It's budget cut time again—all across the board. Not a program is spared. I am not looking forward to this legislative session one bit.

In a time when China and other countries are ramping up their domestic and military technology sophistication, not to mention education, ours is sputtering. They have made significant investments across the board and we, well, all we can manage is piecemeal solutions and incremental change. It is quite frustrating, indeed. What will it take to galvanize this country and this state? If we had more investment in science and technology—and nanotechnology—to be more

November 15, 2010

Dear Professor Smith,

I mean, Sen. Smith…Congratulations on your successful re-election! I knew you would have no trouble with that one, especially with the way you appeal to the young voters!

I know you have some challenges ahead, but if anyone can address them, it's you.

Thank you so much for all that you have done for me. I have learned so much from you and will be eternally grateful. I hope you are not upset that I chose to work in the private sector. I really feel that I need to test the waters there and ReNEW seems like a promising company. As you know, they have been working on the development of a ground-breaking hydrogen fuel pod, using nano-technology. With the war escalating and the end of global oil supplies looming—I really want to make a difference and I know I can do that here. After all, you are the one who taught me about the promise of nanotechnology. Wouldn't it be amazing if I could play a role in helping eliminate our dependence on foreign oil—and stop the war by helping ReNEW form the best and most strategic partnerships and investments in R&D? There's just so much I want to do!

I am so excited to also be able to continue my dedication to education through a seat on the P-20 Council. Now we will be colleagues (and not just a professor and his student)! How do you feel about that? I am truly honored and cannot wait to do my part to bring the vision for education you've always shared with me into reality.

See you at the next P-20 meeting!

Maria

specific, we could solve so geopolitical and global environmental problems. We just need the political will, and the educated workforce to get it done.

Maria understands this. I was so pleased with her work during the time that she worked for me and could not be more proud of her today. She graduated this June and worked on the Governor's re-election campaign. She turned down a job with him and has just begun to work for a cutting edge nano-tech firm—RENew Energy Company. I didn't want her to lose her commitment to education now that she'll be so firmly in the private sector, so I suggested that the Governor to appoint her, officially, as a member of the P-20 Council. He agreed that was a great idea. I'm so glad she has accepted.

May 16, 2011 – Today, I awoke to read the best headline I've seen in years. *ReNEW Finally Cracks the Hydro-Pod Nut!* Of course, I knew this was coming when Maria called me last week to tell me that they had finally done it. Amazing what a lot of hard work and collaboration across multiple sectors and industries can do. Still, I know that this is only the beginning. Now we know how the technology works. But, we have to replicate it, build development plants and new cars and machines that can use them. That will take work—and time is running out. Oil supplies dwindle (and costs go up) and the war just gets worse and worse. If we work fast and together, we in Colorado just might be in the right place at the right time to play a key role, leading the nation on this.

Honestly, I haven't been this excited in years!

August 20, 2011 – Maria saves the day once again! Over the summer, she has managed to pull together all of the key industries—manufacturing, automobile, energy companies, policy leaders, universities—you name it. She coordinated a summit last week and by golly that group has now produced a plan and the political will is there. They are going to "bundle" industry production together to produce the hydro-pods together with the machines that will use them and plan to build these plants all over the state of Colorado and other parts of the west. Sounds promising… but the only worry now is where are we going to find the workers to take these jobs? We can import some of them in the short term, but I'm not about to stand idly by and let Coloradans lose out—not this time. We've got to get the educational pipeline sharpened up…and fast. I want Coloradans to benefit from these new opportunities.

This morning, the Governor requested that all elected officials debrief and plan the economic opportunity efforts. I plan to deliver the message that education—in the long run—is the key for Colorado's road ahead. We can no longer afford to tinker around the edges. It's time for real change, real investment, and real results in education. I met with Maria yesterday and she agrees. She's ready to step up to the plate, too. With all of the attention she's received as the hero of the new hydro-pod fuel economy, our plan just might work this time. Our plan—to launch the Education=Job #1 (E=J1) Campaign throughout the state and rebuild our education system from the ground up. Let's hope we can convince the Governor and others at tomorrow's meeting.

September 16, 2011 – Good news! The Governor loved our idea for the E=J1 Campaign and he is rallying the troops to get behind us. Maria and I are ready for action, too. We are going to travel the state together to get everyone involved. One of our key goals of EJ1—in addition to the public campaign—is to shift the way we fund higher education to a more mission-based funding system from the current FTE model. Other states have demonstrated success in this area. Maria has convinced business leaders that this is the way to go and they are on board, too. My dream of Colorado having the best public education system in the country may be finally close to coming true.

February 1, 2012 – The Governor has appointed Maria and me Co-Chairs of his P-20 Council and has integrated the E=J1 Campaign into its agenda. That will help ensure that policies are aligned to our goals. We are so pleased to learn that the Governor now supports the mission-driven funding model. Everything is really starting to come together.

September 7, 2012- Our strategy to include businesses was successful. Business leaders chimed in and a headline reads, "Google Hoo Pressures Lawmakers to FUND Higher Ed: Needs Stronger Workforce". The internet giant (that emerged from the merger of Google and Yahoo) proceeds to set up, donate, and pressure other companies to donate to the Google Hoo Education Foundation. They also continue to pressure the government to fund higher education. We're on a roll, now!

March 28, 2013- With the pressure from local businesses following in the footsteps of the internet giant, my colleagues and I outline a detailed plan to the other policy makers and the public. Using the business coalitions, the educational community, and the many constituency groups that I have built over the years, work begins. Media outreach aids in getting the message out that we are using our resources efficiently; what we could do with more; and what kinds of higher education standards should be set. With the funds from the Google Hoo Education Foundation and the local businesses support the importance resonated to policymakers. We succeeded again, headlines read "Higher Ed Receives Record Funding!!!"

March 15, 2012

Dear Professor Smith,

Google Hoo is on board! The Google Hoo Foundation, which was so instrumental in the Chinese education system after the merger of Google and Yahoo will kick in $30 million to our efforts, even though its focus is public ed. They said they understood the need to strengthen the public system first and foremost and they will help with the tech infrastructure, too. I think this represents a great step forward in engaging other industries in the new hydro-pod energy economy in Colorado. This is multi-sector, multi-industry collaboration at its best!

See you soon, Maria

PS—It's so cool being Co-Chair with you!

May 10, 2014- This legislative session was the best ever—everything we set out to accomplish through the E=J1 Campaign and the P-20 Council has happened. I could not be more pleased as I finish out my last term. This year, we passed a comprehensive P-20 education bill that sets the stage for stable public funding, opens doors to private partnerships and innovation, expands access and quality, and ensures sustainability for the long haul. The public is squarely behind it and both parties are solid in their support. Both candidates for Governor—Riley and Simon have pledged to continue the effort, and to collaborate, no matter who wins the election in November. Even the federal government is helpful—the President has steadily kept the focus on education during his last six years in office—and believe it or not, we are very close to meeting the 2014 goals set out by the original version of No Child Left Behind. Maria and I have made such a wonderful team as Co-Chairs of the P20 Council. I will sure miss working with her –but boy, am I ever proud of her! Times sure are good. I guess it's time for me to really enjoy my retirement, although what will I do with myself? Maybe Maria will hire me now that she's such a big-wig over at the National Renewable Energy Laboratory (NREL).

December 3, 2015

Dear Professor Smith,

How is retired life treating you! I hope you are enjoyed the trout fishing at your cabin on the Frying Pan River this summer! I have been busy of course. I have loved my job as VP of Public Affairs for the National Renewable Energy Laboratory and continuing my role on the P20 Council. I'm so glad that Governor Simon has decided to continue this effort and structure—and I look forward to meeting the new members. It's been so nice to have such bi-partisan collegiality at the statehouse in the last few years. Do you think it will last?

I have some news—the Governor has asked me to serve as his Director of Economic Development and I accepted. What do you think?

Maria

January 16, 2015- Exciting news! The new governor has appointed me Special Counsel for Higher Education. I wonder if Maria put him up to it? I'll have to ask her. No matter, I know it will be great to work closely with her again—what a team we make! Everyone says I should be relaxing and enjoying my retirement—but I'd rather stay in the game. There are so many bright, energetic, motivated young people doing great things out there. The new Governor is focused and pragmatic—a typical GenX leader—and wow, entrepreneurs and civic minded youth (when I say youth, I mean the 20-30 somethings… those Millennials) who are really focused on solving public problems, even while being successful in business. Maria is a perfect example of that. Look at all that she has accomplished by age 28. I tell you, this generation is truly an inspiration! In my new role I will be able to continue the work that I have done as senator related to education—and get even more focused on higher ed—the

tough nut to crack! I am pleased with the renewed interest in such a basic tenet of a successful society—quality education for democracy. I am excited to be in this position so that I may help advance the reform. In 2014, we had the framework in place, but we have to keep the focus—it's too easy to become complacent. With headlines like "Trust in Education Leaders Grow," I know I have many people who will be an effective network in this new venture.

August 26, 2017- Public funding for education at all levels, P-20 is up. Quality continues to rise, too. More and more youngsters are prepared for college-level work by Grade 10, something we thought would be impossible back in 2007. I think the early investments in pre-school are starting to pay off, that's what I think. The numbers of students choosing to pursue the STEM (Science, Technology, Engineering, and Mathematics) fields has tripled in the last decade! The economy is finally on an upswing and the war is finally over. Things continue to look up.

As I had only hoped, ideas are now coming to me. More and more leaders are inspired to come up with innovative ways to improve the current system, rather than, as was the case so many years ago, fixing a broken system. Many more individuals are coming to me with new ideas. The headlines such as "Success in Recent Education Reform Inspires New Ideas" validate our success. This is widely due to the confidence in all leadership involved. There is renewed confidence in knowing there will be adequate resources for the ideas and a commitment to support and carry through on these ideas.

Seeing headlines like, "Education Really Has Become Job 1," affirms our work of the past several years. The once stressed upon idea now runs like clockwork thanks to the ongoing success of the P-20 reforms. Students begin taking global standardized tests and are put in courses according to their Optimum Learning Environment and Style that was proven on their Optimum Learning Environment and Style Evaluation (OLES) Evaluation upon applying for College. Colleges and universities are collaborating more, too. This is the public system that I once dreamed of.

February 28, 2018- "According to World Economic Forum Report: America Reigns as Premier Power in World" reads this morning's headline. What an accomplishment! It has been ten hard years getting there but we have regained our status and the world peace we sought. In regaining our status, there are so many other benefits. National security and our economic position offer our citizens and citizens of our Allies stability and peace of mind. Thanks to Maria and the many partners she pulled together, Colorado ranks among the top five states in the nation, economically. It's amazing what a solid vision, political will, leadership, talent, and public support can do in the long run!

May 15, 2019- My granddaughter graduated from high school today. It amazes me how many college opportunities she has and all the possible careers she could learn to do. She is interested in attending college and at the top of her list is a local community college. When I asked her why she wants to go to a community college she said "Because of the diverse population and ages of students, and the proven ability to get a well rounded degree that any four

June 20, 2020

Dear Professor Smith,

Congratulations on your well-deserved retirement! I hope you are really enjoying your time with family. I understand you plan to take a tour around the country (I know your wife has been wanting to do that for years). Enjoy! You deserve it. I have been taking some time off myself (I think I deserve it, too). Can you believe what we've been able to accomplish together in the last ten years! Unbelievable! It's everything we've both dreamed of—all of our hard work is really starting to pay off. I am so pleased.

Thank you so much for getting me started down this path. I will never forget everything I learned from you—and the opportunities you gave me, even for someone so young! Thank you for believing in me!

Thanks a million,

Maria

PS-The President of MDCC just announced his retirement from. The MDCC Board asked me to consider the position of President and CEO. What do you think? Should I go for it?

year institution or graduate school will accept as automatic admission." Then she asked me to enroll with her stating "They have all kinds of classes for people your age too, grandpa!"

September 4, 2020 – Tonight, the Governor presented me with the Governor's Lifetime Civic Leadership Achievement Award. I am incredibly humbled. I was so glad to have Maria there with me. It's really something that should be shared with her. But then again, she has many years ahead of her. I am so proud of her accomplishments and now she's going to become the President of the Metro Denver Chamber of Commerce. Wait until they really see what she is capable of!

December 1, 2020 – As I tour the nation with my wife, this time really enjoying my retirement, I am met with great enthusiasm for pushing for the one obvious idea everyone neglected until it was almost too late – the fundamental importance of an education and the essential foundation it brings to so many other parts of our society's functions.

I watch with pleasure as enrollment trends indicate more and more students are enrolling in college to pursue their dreams and protect those of others. Today it was pleasing to see headlines read, "Colleges Bursting at the Seams in Enrollment!"

Analysis of "Education = Job #1" 2007-2020

Implications:

In this scenario, the war in Iraq continues and escalates into a Pan-Islamic World War draining focus and resources from domestic issues like education until 2011 when the opportunity to develop and bring to scale a new technology arises in Colorado. While people care about education and various civic leadership efforts such as the Governor's P-20 Council are underway since 2007, they have had little impact on the overall culture to become motivated to achieve high expectations.

Our main characters realize the opportunity inherent in the development of the "hydro-pod" technology (a version of hydrogen fuel cells). This new energy technology would mean the elimination of the need for foreign (or domestic) oil and other natural resources. They also realize that developing the technology itself was not enough to have the impact on the nation—and the world—that was needed to bring an end to the war. They needed to not only develop the capability for the technology, but rapidly expand its production as well as the designs of cars and other machines currently using oil technologies. To "ramp up" this fast and far-reaching, the nation—with the state of Colorado at the epicenter—needed an educated and motivated workforce—in all fields.

"What if community colleges were THE path to a B.A., rather than just for those who don't fit up front right away."

--Envisioning the Future Participant

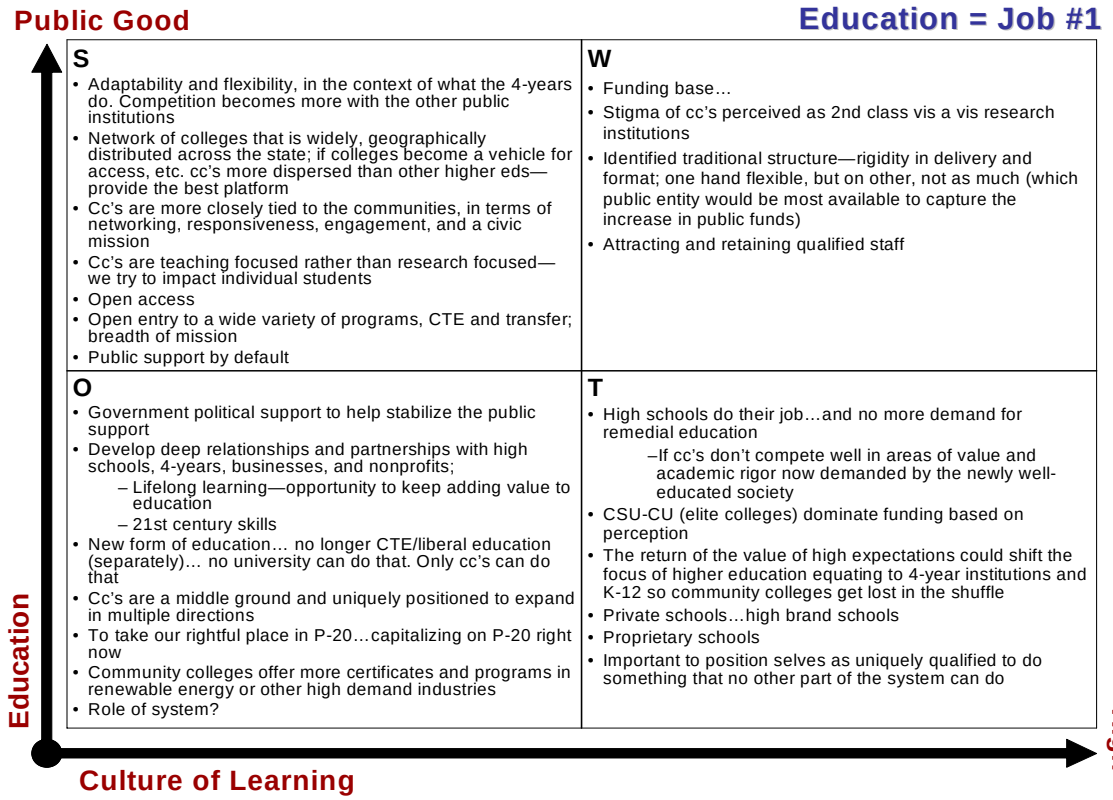
While the elements for success in education are present from the beginning, the turning point in this scenario comes from the somewhat serendipitous alignment of a set of factors and key characters, at the right place and right time. An alternative title for this scenario might have been, "the stars aligned." The opportunity to move forward with the technology was one factor as was the existence of a body, or infrastructure (of

sorts) and leadership for collaboration in education and between education and industry—the P-20 Council.

The constellation of leaders also played a role in the scenario. First is the aging "baby boomer" professor-turned-state senator who becomes relentless in his focus on education, but also understands the need to "pass the torch" to a new generation of leaders. Second is the rising "hero" archetype found in Maria—a typical Millennial who in her early education was not engaged in school, but later found focus and meaning as her learning was increasingly tied to worldly causes. She's motivated to keep going and to achieve because she sees her contribution as part of something beyond her own personal success—she's motivated by the civic purpose inherent in her work and public activities, more than the economic benefits to herself. She wants to make a difference and stops at nothing in order to do so. Third, we have the pragmatic leadership of a Gen-X character in the new Governor who takes office after Governor Ritter's eight-year term. Although from a different party, this new Governor recognizes the benefits of the P-20 infrastructure and leaders, and opts to keep this in place—and even expand it—during his first term.

The scenario hints at the notion that it took the multi-generational, and multi-sector collaboration that came together during a time of both crisis and great opportunity in order to bring about the successful "Education = Job #1" campaign. Coloradans benefit by being at the center of this national cause and by producing several generations of entrepreneurial leaders who are valued for their economic and civic contributions alike. An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented below (see Appendix D for a full page image).

Implications for Scenario A: Education = Job #1



Options:

To meet the challenges of this scenario, the CCCS must give greater consideration to the generational challenges and opportunities for learning and achievement. Community colleges would benefit from firmly positioning themselves as a key link in the chain to purposeful careers in technology and civic life. Stepping up efforts to collaborate across the educational spectrum (both with K-12 and four-year institutions) would strengthen community colleges' position within the P-20 system while also establishing the best and most appropriate "niche" for itself. Other strategic options include:

"Community colleges would have to be a place that students want to be as opposed to a place they can be—an institution of first choice."

--Envisioning the Future Participant

- Compete with the 4-year institutions (if high value on rigor, the 4-years will win out)
- Find best position within the P20 system and focus on that (distinguish community colleges within P20)—make community colleges THE path to the B.A.
- Make the case that community colleges provide the best "bang for the buck"
- Maintain strong public advocacy effort—in this world, public good/legislative role important
- Further develop business relationships
- Focus on quality—make sure all systems for community colleges are first-rate and desirable
- Focus on broad (full) mission—end enrollment-driven funding which limits ability to focus on full mission; must shift toward mission-driven funding
- Connect program development to emerging industry. Be on the cutting edge rather than the trailing edge.
- Better integrate career and technical education
- Reduce and eliminate the silos
- Implement a system-wide honors education program for community college students
- Even out entry requirements—agreements with colleges; articulation agreements

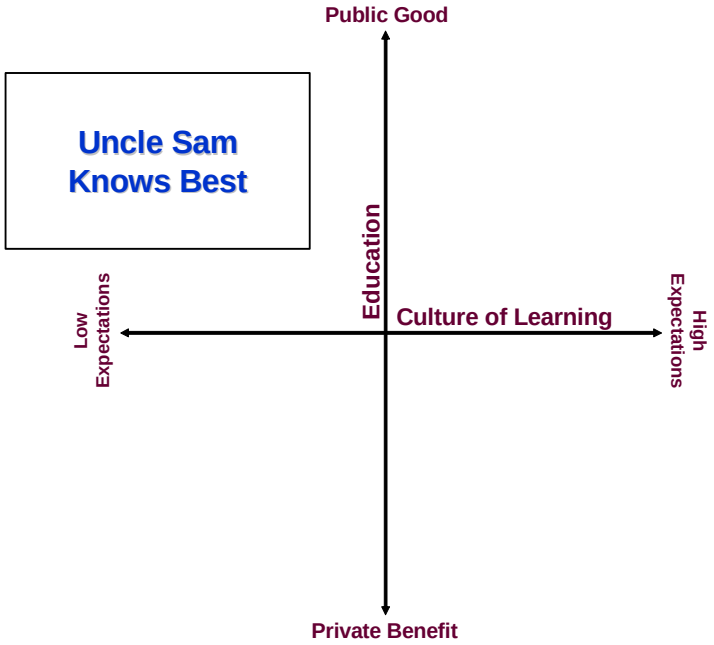
Indicators:

Some possible trends or events that could signal the development of this scenario include:

- The proliferation of the Iraq war and/or its expansion to other nations
- Rising costs of oil and gas
- Continued environmental impacts of global warming, signaling the need for alternative energy sources
- News of potential new energy development sources that could be brought to scale within the next 15 years
- Signs of new styles of leadership, featuring pragmatism, collaboration, and policy entrepreneurialism, from the Gen-X and Millennial generation
- Continued trend of youth being motivated by civic purpose to learning and achievement in order to solve global and local problems

Scenario B: Uncle Sam Knows Best

Abstract



In the world of "Uncle Sam Knows Best," Colorado and the United States are experiencing a recession as a result of global flattening. Many middle-income high tech jobs have moved off shore to China and India. Economic stratification has deepened and the country is losing its middle class. Our workforce is becoming less and less educated and that is worrying policy makers and business leaders who understand the need to compete globally. Education is high on the public agenda, leading to new mandates and increased micromanagement by concerned policy makers. Policy makers want measurable outcomes and are tying the demonstration of successful outcomes to continued funding. Most of those outcomes are in the form of test and completion data that measure how well students demonstrate mastery of specific information. The quantity of education is the focus. What is missing is "How" students are being educated: the climate that surrounds learning and the development of the student's ability to think critically and apply learning beyond the mastery of discreet skills.

According to Thomas Friedman, author of "The World is Flat," workers in the "flat world" will need to be flexible, innovative, and able to meet a need that cannot be outsourced to a computer or to someone on another continent. While Friedman agreed that generally, more education is good, he also identified four themes that are important for educating a successful worker in the "flat world," including: instilling a love of learning in students; inspiring curiosity and passion in students; teaching relationship building to students; and developing right-brain skills. Because these competencies are not easily measured, these disciplines were not incorporated into the accountability system that policy makers put into place to measure effective education, and as a result, were not mandated as part of the curriculum.

In this scenario, some of the brightest students and a growing number of the general public find education less and less relevant to the real world. Celebrity – sports and entertainment – is promoted as a way out of the lower class and as the highest accolade of the culture. Basic technology is affordable and available to just about everyone in Colorado. Technology has enabled and supported instant gratification. Students don't see the reason for working hard to memorize facts or do calculations for tests. There is a large and growing demand for fast and

simple degrees and certificates and there are jobs readily available to workers with these credentials.

Additionally, neither the public nor the policy makers have come to terms with the implications of low academic rigor in public education. Despite the public emphasis on education and its importance for a better life, students and their families are not seeing the connection between academic "rigor" and their own economic and political futures. Policy makers struggle to balance stricter standards with reduced access for the growing numbers of English language learners and other students who come to school unprepared or who are unwilling to put effort into something they see as boring and disconnected to the real world. The "Uncle Sam Knows Best" world is one in which education is a public good and there is a low cultural expectation of learning.

The scenario opens with Madison, a recent high school graduate who is utterly preoccupied with celebrity and the idea of becoming one, reminiscing about her upbringing as she compiles a scrapbook of old blogs. Her experience is contrasted with that of her friend, Maria, who is less taken with the celebrity culture and more interested in pursuing an education. Still, both encounter a bureaucratic educational system, of sorts, that seems out of touch with either of their goals and aspirations.

2020-

Hello all! It's now been two years since I graduated from high school. Mostly, I've been waiting for my big break in the entertainment industry, but yesterday I did something I thought I'd never do – I went down to the community college and enrolled for the fall. Today I decided to put together an online scrapbook of some old blogs and surveys, with some "Maddie" commentaries in between, to look at how I got from there to here. First, here's a brief Madison update:

As you all know, I have been dancing and singing for 15 years. The only future I ever thought about was as a dancer. "No desk job for me!" was my motto. It made my Mom and Dad crazy worried. They thought the same thing would happen to me that happened to my brother, Robbie. He lived at home for almost four years before he finally decided that maybe his band wasn't going to make it big right away and maybe Dad was right, he should get a certificate, a job, and his own place. Robbie told me the only way Mom and Dad would stop bugging me was if I got a job or went back to school. I told Robbie, "No way! I am sticking with my dreams," but then I thought, "Maybe I should get a part-time job or even a full-time job while I keep searching for that big break".

I've been looking for a full-time job in entertainment for about six months now. Careers in entertainment are very competitive and it's been hard to find that first job. Even other jobs are hard to get. You have to compete with boomers coming out of retirement because they're bored or running out of money. Dad says it's because most of the high paying jobs have gone overseas. I got so tired of Mom telling me, "As long as you have an 'education' (and I use quotes because it doesn't matter if you pass by the skin on your teeth), you will have opportunities to succeed – to make more money."

Me, go to college? I always thought, "Why would you need an education when you can get any answer you need in seconds through the web?" But lately I've been thinking about it more. Three months ago I got a part-time job in an after-school program, just to make a little money for clothes and stuff. Then last month I started teaching the kids different kinds of dances from around the world, and it turns out I'm really good at it, plus it was really cool to see the kids get so excited. Now I'm thinking, maybe this is what I should do - go to college and get a certificate or even a degree in physical education so I can teach kids how to dance, maybe open my own dance school. So, yesterday I went down to campus and took a bunch of tests. No surprise, I didn't do so good. They told me I'd have to take some remedial courses before I could take the stuff I need for dance, like physiology and anatomy. Wow! I never thought I'd be taking that stuff. My advisor said most of the kids have to start in remedial, and as long as I'm ready to work I can catch up. I think I'm ready, but I've never really done it and I'm a little scared I might not make it.

My best friend, Maria, got all excited when I told her about college last night. She says we should get a place together near campus. Maria is real smart and she has a job as a CNA in a nursing home, but she doesn't make enough money to afford her own place. She's still living with her parents and two brothers. The family does okay because everyone works and they all chip in for the rent, but she really wants her own place. Maria wants to be a nurse, but when she went to take the test to get into the program, they told her that her reading and math weren't good enough to get in. I told her not to worry, that when I make it, I'll get us a big place. But maybe Maria's right, with my part-time job and student loans we could have our own place. My parents would be soooo happy! Hey, maybe I can get Maria to go back to school with me. I wouldn't be so nervous if she was doing it too, and being a nurse was always her dream. Anyway, I decided to start making a scrapbook of my life before college, just to see how I got from there to here. This was my first blog entry from my first web page, kidzspace.

~ *Maddie* ~

2010-

Top headlines this year-

- 30% of Teens Say They Would Seek Plastic Surgery to Look Like Celebs if They Had the Money
- Nursing Shortage Leads to More Recruitment of Foreign Nurses
- Aftermath of Sub-Prime Crisis Lingers in Depressed Home Starts

My name is Madison and I am 10 years old. I have one brother and one sister. My dad manages the paint department at the hardware store and my mom works as a bookkeeper for an auto parts store in the mall. I live in Mediocrity City, Colorado. I am currently in the fifth grade at Average Elementary School. I like school because it's not very hard. My dog's name is Cookie and she's one of my best friends. My other best friend is Maria. Maria loves to sing, just like me. She comes over to the house after school when I don't have sports or lessons and we watch

television together, listen to music and go on kidzspace. I love soccer and swimming. I also take piano lessons and jazz dance classes. When I grow up, I want to be just like Vanessa Hudgens She is just so pretty and cool, and was so awesome in High School Musical Three. Maria loves animals, like me, and wants to be a vet and have her own animal hospital.

Maria was sad today because last night her brother Pedro left for Texas to look for work. Pedro used to work construction, but his boss stopped building houses, and there's no more work for Pedro. Maria's mom told him he should go for one of those certificates in public safety, but Pedro says he never did well in school, and besides, the jobs don't pay as much as construction. Maria is scared her parents won't be able to pay the rent without Pedro. I told Maria not to worry. When I'm a star I'll pay the rent and maybe even build them a new house, like on Extreme Makeover Home Edition

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2012-

Top headlines this year-

- Free Internet Access to All, With Over 300 Hubs Installed in Metro Denver
- Supreme Court Upholds Constitutional Amendment Banning Bilingual Education.

Today was one of the coolest days ever!! My mom finally said I could be in a dance competition that I've wanted to be in forever! I get to miss a week of school! Mom said she wasn't sure about me missing so much school, but I told her Maria would help me catch up on what I missed. Maria doesn't read that good. She used to be in special classes to help her with reading, but they stopped them when they passed that law and now she just pretends she can read good. But Mom doesn't know that, so she said, "okay". My dance teacher told me I have a really good chance of winning.

Here's the bio that went on the contestant's web page:

"Madison is 12 years old and just started middle school at Teachers-are-Babysitters Middle School in Mediocrity City, Colorado. She has been dancing now for seven years and loves sports of all kinds. Her favorite hobbies include playing soccer, dancing, singing and shopping with her friends."

P.S. Pedro got a job in Texas. He says they're paying for him to go to school and work at the same time as a mechanic on the oilrigs. He is sending money home so Maria is all happy.

2014-

Top headlines this year-

- US Department of Education Funds Massive Study to Find Solutions to Declining Education Level in the US
- Government Announces New Program to Retrain Engineers, Scientists, and Doctors who have Lost their Jobs to Outsourcing.

- Short-term Certificates Continue to Climb as a Percentage of Higher Education Degrees

This is a survey I put on kidzspace:

---OVERALL---
What grade are you in: 9th
Do you like school: Are you kidding me?? My mom doesn't even like my school. She doesn't even go to parent-teacher conferences or Back to School night.
How did this year compare to others: It was cool I guess. I'm a freshman and have a ton of friends. We text or stay out till midnight at least five times a week.
Are you looking forward to next year: I'm looking forward to getting my driver's permit!
If you could change one thing about this year, what would it be: I would be in more talent contests. It got really expensive for my parents cause I had to take summer classes this year and they had to pay.
---ACADEMICS---
What class was easiest? Computer programming, that's a piece of cake.
Hardest? History. Why do they think you need to memorize everything under the sun, its pointless?
Did you have perfect attendance? Ha, you're kidding, right? I think I missed 35 days or something for all my games and practices.
Did you learn anything useful? Do you mean, – "Do I remember anything useful?" Not really.
Did you fail any of your classes? Yes, and now I have to take summer classes, which my parents have to pay for. They're pretty mad at me right now.
Were your classes hard? The information isn't really that hard; it's sitting down all the time and them forcing us to memorize stupid dates, that's the hard part.
Did you take the SAT's? Dancers don't need to take SAT's.
Apply for college? Maria and I talk about it sometimes. Maria wants to be a nurse, so she'll have to go to school some more. Mom wants me to get a certificate or degree so I can have a job to fall back on if I don't make it as a dancer, but I have to try for my dream of being a superstar, at the very least!
What extracurricular activities did you take part in? I was in the musical, I play soccer, I swim, I take singing lessons, I take dance classes, and I do pilates and yoga.
---PERSONAL---
Did you have anything really bad happen to you this year? I failed math and my parents got really mad. Not at me though, at my school. They say the only thing the school cares about is if we're there for the fall count so they get their money, and those stupid test scores. Now I can't get my super-digital all communicating implanted chip for another few months! I'm going to look so lame with this old cell phone.
What would you say was your greatest achievement? I'm going to be on this show called *The Young and the Super Talented.* If I win, I sign a talent contract worth $500,000. My competition is really good though, so I'm a little nervous. I want to win so bad!
Were you happy to be in school? I love being with my friends, but the classes are huge and it seems like all we do is sit around and listen to boring teachers talk, or take practice tests. Everyone is so tired of the tests.
What's your biggest future goal? I just want to be famous so I can have a big house so all my friends can come over.

---PERSONALITY---
Were you confident this year? You have to be confident if you want to win.
Place you feel safest? We have a shelter under our house that protects against all sorts of terrorism.
Who changed your life the most? I really admire all the pop stars that do drugs and drink, then have the will power to stop. I've cut back on my partying habits because Hannah Montana did too.
---FINISH THE SENTENCE---
I believe…that if I don't give up, my dreams will come true.
I fear…that I won't catch my break, and then it will be off to school again for me after I graduate.
I have faith that…the US will come out of this recession. Then, everyone will get over pushing this extreme patriotism on us, all the time! We get it. Go America!

2016-
Top headlines this year-

- More Students Boycott CSAP, Up 25% from Last Year
- High Schools Join with Employers to Offer Certificates in Maintenance and Food Services
- Taxes Continue to Soar to Support Boomers; Medicare Benefits Cut

I am so disappointed! I always thought Mom and Dad would buy me a car for my 17th birthday, like they did for Robbie, but it looks like if I want a car, I'm going to have to save up and buy it myself. Mom said that with my dad's pension converting to some new plan, he won't be getting as much when he retires as they counted on, and they have to start saving every penny they can. It's really hard now because they are still helping my sister pay for her place and day care while she tries to find a better paying job. It's not looking so good right now for my brother, either. Robbie's been out of high school for 3 years, but the only jobs he can get don't really pay enough for him to do anything more than pay the rent and buy food and gas. All the good jobs go to the ones with the education. Robbie still plays with his band on the weekends, but he's afraid his girlfriend will dump him for someone else who has a better job. He's thinking of signing up for one of those eight-week training programs that they offer in the summer for line-chefs. He's been looking at ads in the paper and he says line-chefs make "good money".

Bottom line, I've been thinking about the future and what I need to do to get the things I want in life. The smartest thing to do is get as much as education as you can; at least that's what my counselor keeps drilling into me. The message has changed from, "you can go to college, its possible"; to "you have to go to college", but I'm still not sure it's for me. Mom says as long as you have the "education" you can get a job because employers figure you will pick up the experience and skills on the job. So, in the end, maybe education wins.

Anyway, I understand where my mom is coming from. Mom and Dad are trying to get a second job to save for retirement and help out my sister, but it has been hard. With so many retirees in Colorado, boomers are everywhere. Even though they have more education than the job asks for,

employers always choose them over someone younger because they have "the education". When it comes time to make a choice, my parents don't have a chance, and neither will I if I don't get an education, but school is so boring. Some of the really smart kids get really frustrated because the classes are so easy and some of the rich kids are leaving for private schools so they can get into fancy colleges. It makes the rest of us feel dumb, but we don't really care most of the time. Who wants to study all of the time, anyway?

2018-

Top Headlines this year-

- More 18-32 year olds unemployed and living with parents
- Private and charter school enrollment numbers keep rising; White Flight from Public schools No Longer an Urban Issue
- Legislature Postpones Stronger High School Graduation Requirements Again
- Income Gap between Minorities and Whites Continues to Climb

Today is a very good day, I finally graduated!!! I was scared that I wouldn't, but I knew that no matter what, I would make it. They don't call me cocky for nothing. The graduation rate at Typical High School is about 43%. Most kids dropped out and started working; that is the norm these days. When Maria dropped out of school last year after they told her no way she would ever be a nurse, I almost quit too. But Mom and Dad said if I quit school I'd have to get a job or pay for my lessons – so much for that idea.

Everyone tries to explain to us how important an "education" is. But to me and my friends, we don't get why we have to stay in high school when all you have to know is how to access information on the web. You can know anything, anytime. My generation wants lots of stuff and fast, and that requires money. What's the easiest way to do that? Start working. Stop wasting your time. Not very many have the patience to make it all the way through.

I decided to stay in school in case I don't make it big and famous; I will at least have my diploma. In a way, even though you don't really need an education to perform, it pushed me to graduate as a plan "B". Having my high school diploma puts me ahead of so many of my friends. It also puts me behind in a sense, because I could have been making money this whole time.

Everyone wants the easy and fastest way out, but I'm beginning to wonder if that will get me what I want in life. I have friends who got certificates and started working. They are making money, but not enough to have their own places and a car. Besides, I don't think they're going anywhere, and I'm not even sure there's some place to go. The good jobs are either outsourced or they ask for more education. So, even if you get a certificate, in the end you still need a degree to get a better job. One of my friends is real good at skateboards and he wants to design skateboards, cool huh? I don't know anyone who wants to be an accountant or something hard and boring like that. I hope I make it as a dancer.

Analysis of "Uncle Sam Knows Best"
2007-2020

Implications:

In this scenario, the world very much resembles that of today—a large, reluctant-to-change public educational system swimming upstream against a societal and youth culture more interested in Paris Hilton, Britney Spears, and Hannah Montana than in learning or achievement. This world continues without much change from 2007-2020. There is support for the idea of education as a public good and some level of resources to match, but not enough to truly transform the system into one that leverages innovation and creativity to reach the highly tech-savvy, gaming- and entertainment- distracted youth of today and tomorrow. It's as if society has just resigned itself to accept things the way they are.

"For the system marketing to function really well, colleges will have to work collaboratively, not competitively."

--Envisioning the Future Participant

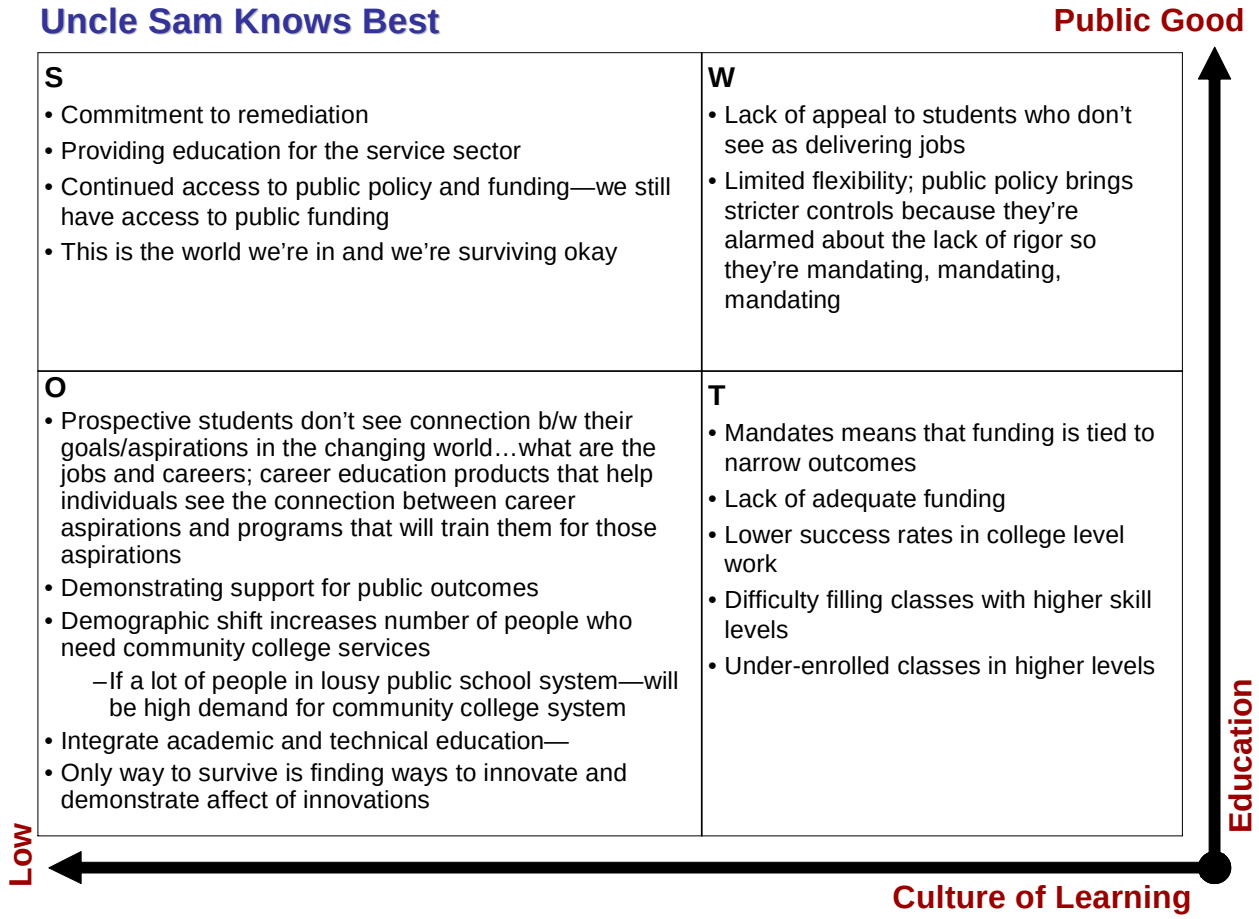
Technology itself has expanded and become so inexpensive and available to all that information—what was once the domain of learning in school—is easily accessible to just about anyone. What's the point of school when most of the jobs that are available do not require higher learning? Although some of the higher paying jobs do require more education, few youth readily see the relevance in staying in school—it's flat out boring.

Government keeps on trying, though, but does so through policies of command and control, over-reliance on testing—and testing *all the wrong things*—and the relentless pursuit of mediocrity. Quite frankly, public education exists—and is not under threat in this scenario—but seriously lacks any relevance or creativity to connect with its actual public. One gets the sense of a completely out of touch, and yet still revered, at least by parents, dinosaur institution. Beyond subtle hints and some nagging, parents, though, seem to leave it to the schools to figure out how to motivate their children.

As a contrast, readers get a brief glimpse of what life might be like in other states such as Texas when Maria's brother goes there and finds a state that is investing in the development of a better-educated workforce by tying degrees to job opportunities in key industries. Readers also hear a small bit about the outlets for creativity that do begin to expand by 2018 with more charter schools taking the best and the brightest into their fold. Still, by 2020, this "competition" does not seem to be enough, on its own, to spur any sort of large-scale reaction on the part of public education. In this scenario, it's same old, same old, all the way through.

An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented below (see Appendix D for a full page image).

Implications for Scenario B: Uncle Sam Knows Best



Options:

To meet the key challenges of this scenario, the CCCS will need to muster up the institutional and political will to lead a change in the current system. Clearly, continuing on in the way things are today will have adverse affects on both the institution and our culture. The system would likely survive in this scenario, but it would not thrive nor contribute to the higher goals its mission sets for the state. In addition to strengthening its ties to career pathways, the CCCS would need to become the "best in the business" at finding ways to truly engage the celebrity-distracted youth culture in a way that motivates them to learn at higher levels. Additional options include:

"We don't want to come up with strategies that are forcing the colleges to do things that don't work. We want to come up with strategies that will help colleges do their job better."

--Envisioning the Future Participant

- Improve student engagement to get students to become interested in college

- Improve customer service in the college
- Become a better brand-use celebrity endorsements
- Develop a career-focused curriculum; help students see the connections
- Make the curriculum relevant to their life
- Expand concurrent enrollment statewide
- Implement Career Pathways: Bridge to Opportunity
- Focus on incentives to reach and keep students in school
- Market what the CCCS is doing well
- Pursue strong lobbying agenda
- Position community colleges as having a unique role in P20

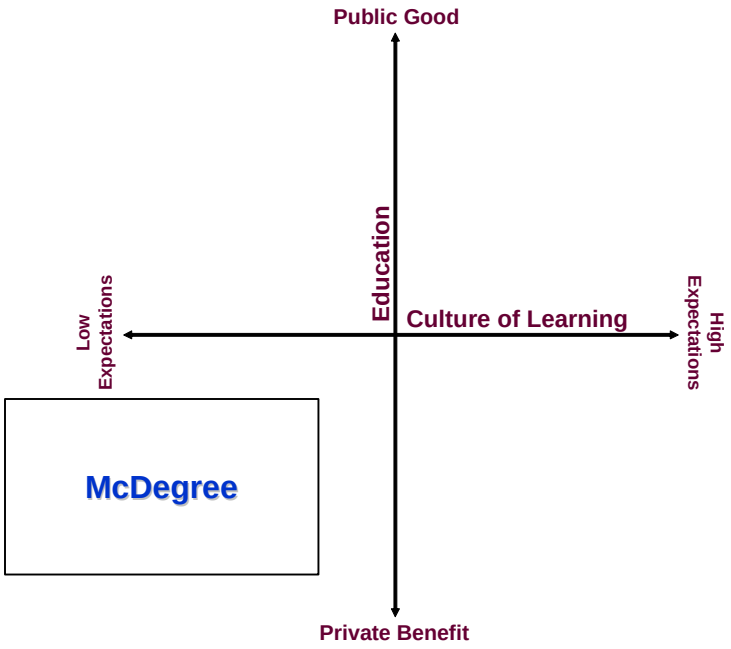
Indicators:

Some possible trends that could signal the development of this scenario include:

- Efforts to innovate and transform public education not succeeding on a large scale, either through organized resistance or simply through a "regression toward the norm."
- Continued focus on entertainment and celebrity culture on the part of youth without any connection to larger economic or civic purpose for achievement and learning
- Educational policies that impose rigid accountability measures that limit innovation and creativity
- Competition from retiring baby boomers who take many of the available jobs—especially those that require experience and higher levels of education—displacing the youth and suppressing their need to become educated
- Outsourcing of jobs that require education

Scenario C: McDegree-You Deserve a Break Today!

Abstract



In the world of McDegree, public higher education is belatedly divesting itself of the last vestiges of its traditional mission--serving the public good. It has finally realized that in order to survive, it must emulate the competition and "provide services" to "individual consumers" in all their multiplicity and diversity. For years, colleges have steadily lowered the rigor of their courses and degrees to attract and retain students, but to little avail. Across the U.S., private education companies have been drawing students away from traditional public institutions for the better part of a decade. In the face of massive baby boomer retirements and continued growth in technology-related industries, businesses are crying for entry-level employees whom they can train in their own cultures and processes. The value of a traditional two- or four-year degree—which once included meaningful general education and citizenship components—has dropped significantly. Though such components still exist, they are for the most part "rubber stamped" in private schools, and public schools have begun to follow suit. In 2020, students demand basic technological skills they can market to waiting industry, and they demand degrees in the shortest possible time, with the least amount of interference in the form of developmental requirements, general education, or face-to-face instruction.

Other factors at play are as follows: 1) Continuation of FTE funding well into the last decade (2010-2020) has resulted in difficulties retaining qualified faculty, especially in high demand fields; they are paid more by private providers and have fewer governance/administrative burdens. 2) Perkins funding has been steadily declining as the public value of education has eroded, resulting in decreasing commitment to CTE, which industry can do quicker anyway by rubber stamping any general education requirements.

In this scenario, Marci (an atypical, traditional college student pursuing a Masters degree in Student Affairs) finds that job opportunities in public higher education have bottomed out as she approaches graduation. She seeks advice from her father, one of the last hold-outs, a Colorado public university administrator still philosophically devoted to the old values of public education. Her father, realizing that he has little to offer in the way of practical advice, introduces Marci to a former colleague who now works for a private higher education provider.

From: Marci5@newworld.net
To: TeddyB@colo.edu
Subj: Work
Date: Feb. 2, 2020

Dear Dad,
As my graduation approaches, I'm starting the dreaded job search process, and I need your advice. I thought my Master's in Student Affairs would be more in demand, especially here in New York, but I'm disappointed in the lack of interest. My classmates are having the same problem--there seems to be a widespread glut in the student services profession currently, at least on the East coast.

How are things in Colorado? You know, since you sent me to New Hampshire for high school back in 2010, I haven't paid much attention to things out West, but now I'm sort of interested in returning and living close to you and Mom for a while. Are there any jobs at CCU? How about in higher education generally? I could even teach part time until I found something suitable. What do you think?
Love,
Marci
P.S. I'll just use email since you have so much trouble with the Context Aware device I gave you for Christmas.

From: TeddyB@colo.edu
To:Marci5@newworld.net
Subj: Re: Work
Date: Feb. 4, 2020

Dear Marci,

Thanks for using email. I know it's old-fashioned, but so am I! Actually, how about switching to your blog? I've called a friend of mine, Jan Alexander, and asked her to join our conversation. She's a recruiter for one of the newer two-year proprietary schools, Great Divide Career and Technical College, and she might have more to say about opportunities for you in Colorado. Here at Colorado Consolidated U, we are still pushing early retirements and eliminating open positions. Anyway, I'll stop here and join your blog in a day or two. Gotta run.
Love,
Dad

MarciEducation.Blogspot.com

Comment (posted Feb. 12, 2020)

Marci (and Jan),

Sorry it's taken me so long to pick up the thread: lots of overtime dealing with another class-action lawsuit, the second this year: students suing us for not giving them what they pay for—high grades, quickly. We've already made so many concessions to avoid trial in previous cases…. I don't know where this one will end. It doesn't look good.

Are you really thinking of working in public higher ed? Marci, last year Colorado passed an important milestone: 62% of graduating high school seniors chose the "McDegree" option offered by the private providers—increasingly, they are choosing to "flip forward to success," as one of the marketing campaigns puts it. They can get associates degrees in nine months of focused coursework, and bachelors degrees in 2 years. Plus, the bigger companies are giving precedence to McDegree graduates in the hiring process because those graduates are younger and more "trainable" in technical fields. These companies long ago lost hope in the ability of public education to respond to their need for technically trained workers, so they've developed their own "higher education supplements," as they call them. This movement is in full swing in Colorado. It offers something for everyone: a quick pass through college for students, easy money for the proprietaries since the legislature is helping students pay tuition, and a malleable labor pool for business and industry.

Even more troubling to me philosophically (though not to my fellow administrators, alas!) is a growing trend: fully personalized higher education (FPHE). Students can now get accredited, guaranteed transfer coursework on their context-aware high-speed wireless-enabled video i-pod implants. One of our own students—a recent transfer from the local community college—is taking a math course from India, a science pre-requisite from MIT (the course itself is free but he has to pay to take the final exam), and an English class from Mexico City! He listens to lectures on his implant while riding his SEGA to campus. More and more public institutions are working with FPHE students to award degrees based on previous study "abroad," so to speak (a lot of the providers of personalized learning are in India and Eastern Europe). For instance, we are getting rid of our two-semester residency requirement for the bachelor's degree.

Anyway, have you thought about moving to Asia? They are doing a much better job of supporting public education there…. I'm only partly kidding! Enough for now.
Love,
Dad

Comment (posted Feb. 13, 2020)

Marci (and Ted),
Marci, don't go to Asia! Your dad is hopelessly behind the times (he knows I say that with much affection). He's such an idealist, still committed to the old values of public education. It's charming, in a way, but the public has given up on trying to force improvement and accountability in public education. (Remember that the "public" is increasingly made up of retired boomers, who aren't thrilled when asked to pay for very expensive proposals to improve the system.) Private education in Colorado is booming for one overwhelmingly obvious reason: we respond quickly and flexibly to demand. And let's be clear about the nature of that demand. It comes from two directions: first, a boom in the so-called "NewTech" industries, the maturation

of the "green" sector of the economy, and the explosion of the healthcare sector. These groups combined make up 75% of Colorado's economic base, and they are crying for workers in an age of mass retirement.

Second, our students…. When they reach college age (which as you know is now 15), they see full and immediate employment on their horizon if they can only "get" a degree! There's no longer a "culture of learning" associated with high school or college life. It's now all about getting that first full-time job. Since companies are now finishing off employee education with their own programs, most students just want that ticket, and they want it as quickly as possible.

There are very few students like you anymore, Marci. In fact, you've always been in the minority—interested in classical liberal studies and employment in higher ed—but the system has never recognized that fact. Now it does. The old system is breaking up to give the majority of students what they need to succeed in the new economy. Want my advice? Come to Colorado! The field is wide open here. Your grad degree in Student Affairs will easily convert to a management position of some kind. Come see me!

Jan (nice to meet you!)

Comment (posted Feb. 17, 2020)

Jan (and Dad),
Thanks for your posting, Jan! It sounds as though private education is an exciting place to be right now. Actually, you've inspired me to write a paper on the decline of public education in Colorado (this might turn into my Master's thesis!), so I'm wondering if you'd both mind expanding a bit on how Colorado got to its current position. Can you follow up a bit on your comments? I'll use you both as a source in my paper…promise! What happened after I went away to high school in 2010? What did I miss? Here's another question: weren't community colleges supposed to fulfill the role that private providers have assumed? What happened with the two-year colleges?

Marci

Comment (posted Feb. 17, 2020)

Marci,
I'll start to answer your question—maybe Jan can fill in if she has some time.

As much as I hate to admit it, Jan is quite right about the current vitality of private higher ed. I guess I'd start to explain it by pointing to the well-known structural weakness in public education that existed a dozen years ago, when some of the new industries started developing and boomers started retiring.

Remember the "Colorado Paradox" we talked about last time you were home? Back in 2007 or 2008, we were just beginning to realize the consequence of importing degreed tech professionals into the state for so many years—we'd been riding that wave to the detriment of our own public education system. After all, public education is expensive, and the payoff is not immediately tangible. In the age of TABOR, especially once the retirement-fueled recession began, higher ed funding was an easy target for legislators.

Instead of more funding, all we got for several years were louder calls for greater efficiency and higher quality throughout the system. This all began with the Spellings Commission report in 2006, but when President Romney refused to nominate a new education secretary in 2009, the commission's positions were only strengthened. We were able to make some improvements in these areas, but not quickly enough to respond to NewTech demands and the sharp rise in competition from private providers that came to known as the Proprietary Movement.

What happened next surprised everyone: certain legislators started advocating a total end to public education in Colorado—even K-12!—because efficiency and quality were so strongly associated in the public mind with private industry. This was in 2010 or 2011, about the time Colorado Springs made its bid to become the capitol city. Privatization became the watchword for reformers. (As you know, Marci, this is when we sent you off to Sandhurst for high school.)

Now we are struggling to hang on. Bottom line, Marci: I guess I agree with Jan, if not philosophically, at least practically. You won't find a job in student affairs in Colorado. Here at CCU, the dorms are largely unoccupied—students don't live on campus anymore since they don't have to attend classes except for certain special purposes. We'd love to have you living nearby, though.... Keep in touch!

Dad,

Jan, would you like to add anything?

Comment (posted Feb. 24, 2020)

Marci (and Ted),

It might help you, Marci, if relate the story of my own career. I started out in academic affairs at CCU as a protégé of your father (it was still called CU back then!). Though I enjoyed my experience at the university level, I'd always been in sympathy with the mission of the community college system—open access and support for all (you see, I'm a bit of an idealist too!)—so after a couple of years, I moved to the community college system as a staffer in the Office of Instructional Affairs. I saw much greater opportunity there to help the greatest number of students achieve a better life. If only things had not started happening so fast, the system might not be struggling as it is now. Here is a brief summary of the events that drove me into the private world:

1. As your dad says, the Proprietary Movement took hold in Colorado when the legislature began withdrawing financial support for public education. There was such a high level of public disgust with the inability of public education to improve its standardized test scores, etc. The private education market grew rapidly, fueled mostly by middle class and wealthy families and by the proliferation of "personalized" (FPHE) education options. By 2018, there were over 1000 P-20 private education providers in Colorado, and that number is still growing. So far, legislative proposals to regulate this growth have fallen on deaf ears—our elected officials seem to want to give privatization the greatest possible chance to succeed.

2. This was not just a Colorado phenomenon. Other states were moving in the same direction. In response, the U.S. Department of Education did away with regional accrediting bodies in favor of a single national accreditation system in 2016. The reason for this move was to stimulate growth in private education by improving transferability of courses between formerly competing types of institutions. Students could now select courses from any number of providers, and those courses would transfer. Kids started "personalizing" their own higher education by taking distance courses not only from around the country, but from foreign universities, mainly in India. The new mega high speed Internet and context-aware technologies made all of this possible. Your dad suggests that FPHE is a fairly recent trend at the university level, but it had an immediate, transforming effect on two-year education: rapid declines in enrollment. We had seen it coming, but we didn't predict how rapidly it would get here. And now that all colleges have to accept FPHE credits, locally offered courses seem less relevant to students; plus, local courses are sometimes more expensive, believe it or not!

3. Colorado public colleges started closing shop. All the rural community colleges were "consolidated," and Adams State and Fort Lewis College succumbed to bankruptcy. This actually benefited the rest of us for a while, but the trend never reversed; we kept losing enrollment and, of course, budgetary support. In 2018, the legislature reduced public support to higher education to 50% of operating budgets and required us to raise the rest of the money ourselves. The only thing we really knew how to do was cut costs! Our solution: cut full-time faculty to the bare minimum, cancel all capital construction, and try to compete in the distance education market. Too little, too late….

4. Colorado demographics had changed completely by 2017. The gap between rich and poor had widened even more than in the nation at large, and the poor were increasingly Hispanic, English language learners, and employed in tedious but vital sectors of the economy. Unfortunately, this demographic shift occurred at just the time education was being privatized. As you know, poor families now receive the largest share of state dollars just to keep them afloat and working. We've given up on educating them meaningfully. They are certainly priced out of the private market, and that old problem, the "digital divide," is a further barrier for them.

That was the last straw for me, Marci. If I couldn't serve those who needed education the most, I knew I'd be frustrated in public education. A year and half ago, I made the switch to Great Divide, and I haven't looked back. I've been too busy! We might be a degree-mill, but we are

helping place students in emerging industries who need them, and you can see the result in Colorado's current economic growth. There's nothing like tangible success to give you an immediate sense of reward, even at some loss of some youthful idealism.

Well, Marci, have you had enough? I think I'll stop now, but if you need any more information for your paper, let me know.

Jan

Comment (posted Mar. 2, 2020)

Marci and Jan,
Thanks, Jan, for the re-cap! I'm sure Marci will find it helpful.

By the way, the lawsuit I mentioned? This one's going to trial—we weren't able to concede what they wanted: A-grades assigned at the beginning of the semester with the burden on instructors to prove the validity of any grade reductions thereafter. We'll see how it turns out. You can watch the trial on your "blink and wink" eyeball video receiver, Channel 5049, starting on Monday.
Love,
Dad
P.S. Mom sends her love.

Comment (posted Mar. 5, 2020)

Dear Jan and Dad,
Thanks so much for all of the information! This is turning into a major research project. I wonder if I have time for it. You know, Jan, I may take you up on your offer of an interview. I don't *have* to write a thesis; the other option is just to take the master's exam. If I do that, I'll be finished in May and I could go right to work in June. I'm looking forward to talking with you!

I'll call you when I get home. You too, Dad!

Marci

Analysis of "McDegree"
2007-2020

In this scenario, society has pretty much given up on public education to provide the "fast learning" options demanded by both culture and industry. The void is quickly and easily filled by ready, willing, and able private companies who take the concept of learning anytime, anywhere, and in any way to a whole new level. They provide easy access, cheap tuition, quick degrees, and various "mix and match" options for students. They build on technological advancements to allow multi-tasking and extreme personalization to play a role (e.g., customize your own degree through fully personalized higher education (FPHE)). Public institutions, which have struggled to keep up over the years, are truly left in the dust in this world.

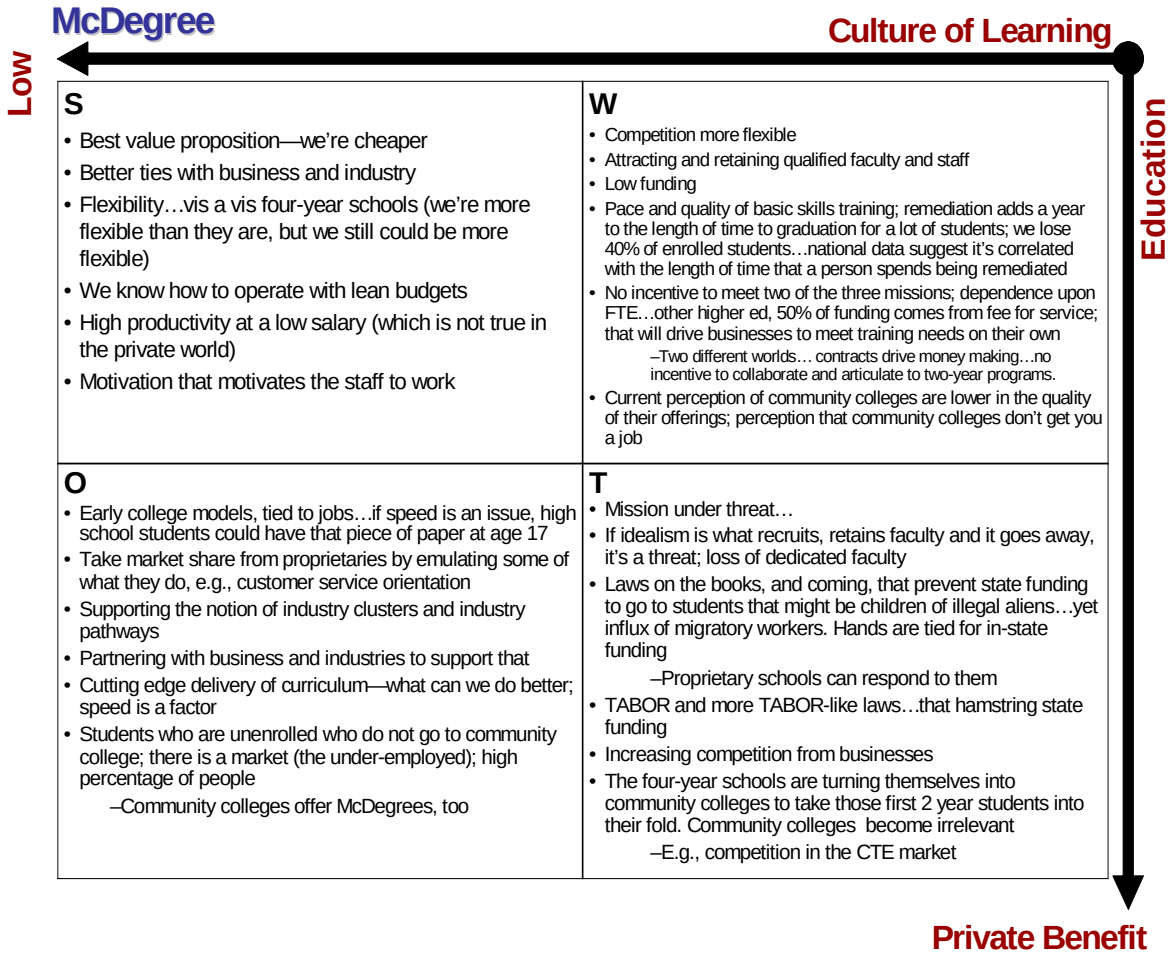
"The key of it is, we will become McDegree if we keep the same systems and mindsets that we currently have."

--Envisioning the Future Participant

Culturally, the majority of the population, aside from a few holdovers like Ted, no longer values public education, never mind a thoughtful, traditional liberal arts education of any kind. In fact, getting a degree—for little effort and money—has become so common place, that there is a tendency to sue institutions that resist the quick fix in favor of quality. Grading policies have been turned on their head in order to better meet the demands of "customers" reflecting the extreme distrust for the judgment of educators in favor of the mob rule.

Making matters worse, the tax-paying public—by now mostly made up of retired baby boomers—have little tolerance for continuing to support a publicly financed education system. A series of events unfold between 2007 to 2020 in an effort to help the public institutions compete, but ultimately, they are unsuccessful. An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented in below (see Appendix D for a full page image).

Implications for Scenario C: McDegree



<u>Options</u>:

To meet the key challenges of this scenario, the CCCS must truly innovate in order to compete. Not only is this world conducive to profit-making and entrepreneurial approaches, but it favors those institutions that are able to adapt extremely quickly and flexibly to meet the ever-changing demands of a fickle, unmotivated population. Public institutions may be able to compete and maintain their core values and principles if they become just as innovative (if not more so) as their competition. Further, by tapping into the strand of interest in social purposes that may be inherent within the Millennial generation (and of course remaining among

"We're suggesting a complete systems overhaul: outcomes-based. You don't have to be tied to semester courses, contact hours..."

--Envisioning the Future Participant

the baby boomers) they might be able to capitalize on the best of both. Other strategic options include:

- Partner with leading industries and modularize job skills
- Partner with industries and allow them to help us develop the curriculum
- Always assess and assure that certificates are outcomes- and competency-based
- Continuously innovate delivery methods to accommodate students who are now the gaming generation (short term, fast, etc.); Put them in an environment where they can succeed
- Redefine the mission—value liberal arts, but blend it in, so they're getting 21st century skills in a package
- Constantly provide training and support to faculty
- Evolve calendar structure and get away from traditional. Think of a business model of continuous enrollment and just-in-time learning
- Develop system and individual college economic development and system-partnerships with local community
- Need to be a vital partner with economic development and business
- Develop early partnerships, P-20-provide some modules in high school
- Reward faculty based on outcomes, teaching & learning, not time
- Reduce barriers to innovation

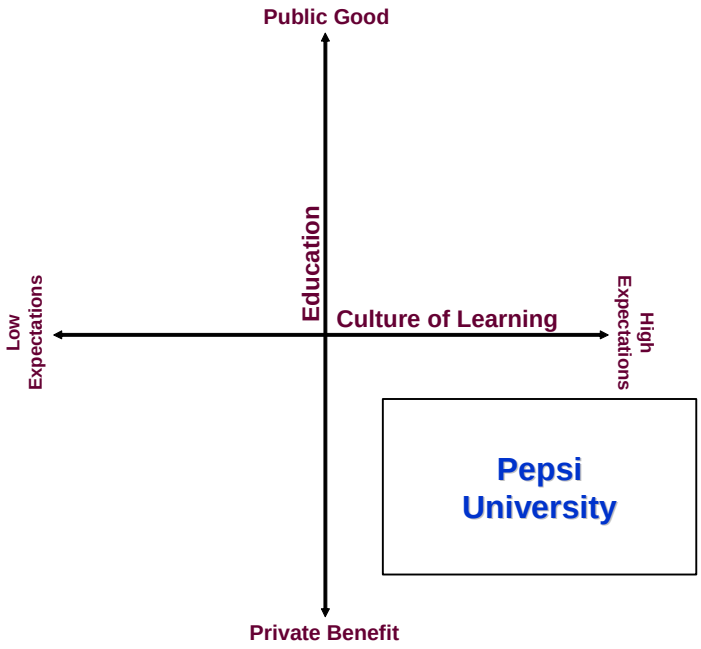
Indicators:

Some trends or events that could signal the development of this scenario include:

- Increasing popularity and utility of proprietary and/or degree mill institutions
- Continued failure and perceived lack of value in public education
- Policies that limit public institutions' abilities to innovate to compete
- Increased popularity of personalized—anytime, anywhere, in any way—learning
- Increased focus on the purpose of education being to get a job over a broader, more liberal arts or civic purpose

Scenario D: Pepsi University

Background:



In 2007, Dennis Prease, CEO of the multi-national PepsiWorld—headquartered in Denver—realized that America's public education system would fail to produce enough qualified workers to replace his aging and retiring workforce. Therefore, he devised a way to attract young talent to his corporation by offering more than just salary and bonus incentives. He went several steps further, pioneering the Corporate College approach that is now so popular worldwide. After college prep became a universal goal for all students, districts tried to meet this goal, but found themselves woefully under-staffed and under-capacity to do so on their own. States did not have the resources or the political will to help, and the feds were preoccupied with international and national security concerns. Thus, many "innovative" school districts and colleges who took the goal seriously turned to corporations for help. By 2009, as an extension of this approach, corporations began setting up their own colleges and "early colleges," recruiting students even before they graduated from high school and training them across the curriculum using highly focused, year-round, modular methodologies. By 2015, students were able to complete high school and college degrees (two- and four-year) in half the time of traditional education. School districts were relieved to receive this help. In recent years, PepsiWorld has begun offering graduate degrees as well, and its educational arm is now called PepsiUniversity. Upon successful completion of their degrees, students are offered full-time positions with PepsiWorld at whatever level they have shown themselves proficient: executive, sales, technical, maintenance, etc.

These changes came at just the right time in America's generational "moment." For several years, America's "Millennials" had been graduating from traditional high schools and going off to college with an increasing sense of dissatisfaction and frustration. They were anxious to lead and make a difference in the world but did not feel adequately prepared by traditional educational experiences. They wanted a faster start, more emphasis on technological and practical training, and more rigor in their coursework. For these reasons, they began flocking to corporate colleges.

Finally, the world of this scenario really consists of two distinct worlds: the relatively well-off, for whom the value of quality has taken hold, and the underserved, large numbers of whom are first or second-generation immigrants for whom the value of quality is only a dream.

- ***Benefits to the company***: Engaged employees who are loyal to the company with little turn-over; a workforce being trained specifically to their needs, terms, and expectations; minimal outside interference (as long as benchmarks set by state educational agencies are met, Pepsi University maintains accreditation).

- ***Benefits to students***: Guaranteed employment, less time wasted in educational settings, free tuition, a faster and more focused start on their own careers.

- ***Benefits to taxpayers/legislators***: More tax money can now be devoted to decaying infrastructure, retiree entitlements, and public support for a rising underclass.

The scenario opens in June 2020, when ABC News is devoting a week of coverage to the remarkable success of the Corporate College model and the attendant decline in public support for traditional high school and college education. We join their June 13 morning coverage….

Good Morning America Feature Story, June 13, 2020:

Robin Robbins: Thirteen years ago, PepsiWorld announced its intention to enter the educational arena. This June, the tenth college graduating class is about to enter the world of work, and we are devoting exclusive coverage to a phenomenon that has changed the face of American education and is rapidly becoming standard practice around the world. Joining us from Denver, Colorado is Jackson Riley, with Dennis and John Prease. Dennis is the retired CEO of PepsiWorld, and John, his son, is now Chancellor of Pepsi University. Good morning, Jackson!

Jackson: Robin, good morning! With me are Dennis and John Prease on this momentous occasion. Today the 10th graduating class walks across the PepsiWorld Auditorium stage and, after a three-week break, will begin their pre-arranged jobs in PepsiWorld offices all over the world. Some of these college graduates are as young as 18; remarkably, very few of them are older than 21! The original class—which graduated in 2010—was only 15 students strong. Those original 15 are with us today, standing behind the Preases, but this afternoon, 860 students will cross the stage having earned a high school diploma along with a combination of technical certification, bachelor's degree, or graduate degree. Dennis, this was your brainchild. Can you tell us what led you to even consider such a bold move?

Dennis Prease: Well, Jackson, back in 2007 I had known for some time about a number of disturbing trends that would affect PepsiWorld: failing public schools, colleges that couldn't seem to produce highly trained graduates, massive retirements of the baby boomers, and so on…. But the seriousness of all this never hit me until my granddaughter, Julia, and grandson, Tyler, stayed with my wife and me for a weekend. In June of that year,Tyler was in second grade and Julia would have been about four. I sat down with Tyler to read him a bedtime story, and I asked him to read to me – as I used to with John. Tyler tried every way possible to get out of reading out loud to me, and I soon discovered he couldn't read very well.

Well, when John and Lisa came back to collect the kids, I asked them if they had noticed that Tyler wasn't reading up to age level. They had, and they had discussed their concerns with the teacher. Unfortunately, the school was understaffed, resources were limited, and because he didn't have a "special need" or disability, he was one of many who would never receive the help they needed. This didn't sit too well with me. Then a few days later, after I'd been moping around, my wife said, "Why don't you just start your own college at PepsiWorld? Hire the best teachers. Run a year-round school. Select the most talented students and guarantee them jobs when they graduate. That way, you can control the outcome. Won't that solve PepsiWorld's staffing problems and give kids the attention and focus they need?" Well, sir, she was right!" That's how it all started. Today...we have seen this model succeed not only for PepsiWorld, but for other corporations and communities as well.

Jackson: One of the graduates today is your grandson, Tyler. Dennis, tell me what this day means for you?

Dennis Prease: (Choked up – tears in his eyes, looking at Tyler.) This is a dream come true. Not only do I know that we have provided a change in the educational arena in the state of Colorado, I know that my grandchildren and others are ready to face the challenges of succeeding in a global economy.

Jackson: John, has it been difficult to carry on your father's vision?

John Prease: Not at all. When he proposed this bold initiative, there were many skeptics. Now, there are many corporations patterning their corporate schools after PepsiUniversity. I'm very proud of his vision and boldness, and of our success. This is a great day for me and my family, for more reasons than I can identify.

Jackson: Join us tonight on *20/20 – Primetime* where we will highlight the last thirteen years of PepsiU from inception to success. Pepsi—more than a refreshing drink—now a leader in the educational arena as well. Back to you, Robin.

Robin: Thank you, Jackson. We note that there are many Corporate Colleges in the US—167 by one count, and many more corporations are signing on every year. Google University got in the game by 2010 to focus on Cyber-Education programs, and Harpo University followed shortly thereafter to provide an avenue for students interested in social and civic fields of study. Tonight at 9:00 p.m., 8:00 Central, Jackson Riley sits down with some folks in Colorado to talk about the future of education in America. Tune in.

20/20 Primetime Round Table, June 13, 2020

Reporter: Jackson Riley

Riley: Tonight we are joined by four individuals who have been a part of major changes in Colorado's educational, social, political, and business life in the last decade. We have with us

John Prease, Chancellor of PepsiUniversity, Dr. Farley Dickens, former college history professor and now Speaker of the Colorado House of Representatives, Dr. Selbe Coverdale, Colorado Commissioner of Public Education, and Roseanna Archuleta, advocate for Human Cause, the national social action network.

Dr. Dickens, let me start with you. 13 years ago, Colorado CSAP scores indicated no improvement in proficiency levels of K-12 students despite several years of intense effort to improve those outcomes. The governor at the time called for studies and set up commissions, but the result of it all was a striking realization and admission: our public schools would never significantly improve without prohibitively expensive restructuring. What was the legislature's role in arriving at this conclusion?

Dickens: Naturally, Jackson, we were all concerned about the flat performance of our public schools. However, this issue floated between a Scylla and Charybdis of public policy, if you will. On the one hand, Colorado's anti-tax, TABOR advocates (at the time about 52% of the legislature) refused to support funding for untested restructuring ideas, and on the other, our highways, bridges, and urban utility delivery systems were beginning to fall apart, and our tax base was diminishing because of all the retirees moving to Colorado. Combine all of those factors with the lack of federal funds due to the war, and we had powerful forces working against affordability of traditional colleges. When Dennis Prease announced that he wanted to set up a Corporate College that PepsiWorld would fund 100%, we all sat back and listened carefully. Not a year later, the legislature gave him the green light on a trial basis—it turned to be one of the best votes we ever took .

Riley: Mr. Prease, you were involved early on with your father in setting up the college. What were your guiding principles back then?

Prease: I still remember my father saying in speech after speech to any audience he could find, "We just don't have time to wait. The public sector can't do it, not for lack of will but for lack of resources." He was especially concerned that India and China were producing the educated workers needed for the 21st century global economy and that the time would soon pass for large-scale corporate investment. Corporate America is the most dynamic engine of efficiency, quality, and success the world has ever known. If we care about this country and about our kids, we need to at least give the corporate approach a fighting chance. My father was not an educator; he was a businessman. But he developed a powerful vision for education by imagining the world he wanted his grandchildren to live in one day. I'm proud to say his vision is proving hugely successful. We are all in his debt today.

Riley: Ms. Archuleta, do you agree?

Archuleta: Jackson, it is true, many corporations are benefiting from "growing their own" employees beginning in their future employees' mid-teen years. And many middle class families are quite happy to have their children directed from an early age into focused learning and productive employment.

But one feature of Corporate Colleges we have not discussed is that these "institutions" are able to select the best and brightest students at very young ages, and reject those who might take longer to educate: the traditionally underserved, the academically challenged, those from poor homes or who do not speak English as a native language. This segment of our population is growing every year, not decreasing. I couldn't be happier for the successes of PepsiWorld and other corporate educators, but I'm very concerned about the vast majority of our students and their families in this world of rising inequality. What hope for upward mobility can we offer them?

Riley: Dr. Coverdale, as Commissioner of Education, do you have a response to that question?

Coverdale: Absolutely. To tell you the truth, I share Ms. Archuleta's concern 100%, but the truth of the matter is that the Corporate Colleges—and their associated Early Colleges—have taken an enormous weight off the shoulders of public education. Fifteen years ago, we were under such strains that we could barely function. The calls for increased quality were coming from all directions, yet we were being asked to serve the widest range of students in the history of our country—demographically, linguistically, socio-economically. Without major funding increases from the legislature, we weren't going to be able to improve overall quality, and we knew it.

In the few years following PepsiU's startup, we in public education gladly began sharing responsibility with the corporate colleges, giving up more and more of our better students to corporate education. This has had a wonderful effect on us. We can now focus almost entirely on the mission Ms. Archuleta, and I, believe is so important: providing free public education to the underserved. And at the very least, the public demand that we improve quality has subsided tremendously. Now we can focus on our job….

Archuleta: And where is the quality, Dr. Coverdale? The challenge and the assistance that propels students out of poverty and into the American Dream?

Riley: Perhaps that is a subject for another time, Ms. Archuleta. Let's move on. Let's talk about the intervening years. Panelists, how do you account for the success of the Corporate College movement, especially in the last 6 or 7 years, when it has seemed to sweep the national scene and is expanding to the rest of the world? Mr. Prease?

Prease: It's very simple, Jackson. Unlike the public sector, PepsiWorld had the resources to hire the best of the best, train them and retain them—best instructors and professors, counselors, technological expertise, and so on. It's true that we selected our own Early College students, but we did that solely on the basis of merit as determined in Colorado's own CSAP process. Colleges have always been selective—except community colleges, of course—so we were no different in that respect. And once we got students in the classroom, we focused on the reason they were there: to learn and demonstrate proficiencies in vital skill areas. We didn't waste anyone's time, either in the College or Early College settings. Students were in learning settings all day long, their learning was hands-on, and after a year of college study, they were already interning in the careers they'd be pursuing later on. I can't imagine a better recipe for success,

and it is obviously the very same recipe other corporations are following around the world even as we speak.

Riley: Dr. Coverdale and Dr. Dickens, one of the major innovations of Corporate Colleges—and now the pioneering Corporate University that PepsiWorld has started—is in the very way classes are taught. In fact, perhaps the term "classes" doesn't apply anymore. The old concepts of "seat time" and lecture, note-taking and "boning up" for exams have never been part of the mix at PepsiU. Both of you have years of experience in traditional education. How do you feel about these innovations?

Dickens: If I may, Jackson, the innovations you mention are just the ones called for by the 2007 Commission on Achievement Now through Teaching Change (CANT-C). These were the restructuring ideas Colorado couldn't afford back then, and still can't. In my view, Corporate Colleges saved the day for all of us—students, parents, taxpayers, legislators, and most importantly, American businesses that need those educated young people.

Coverdale: You know, I can't see anything negative about the Corporate College movement. Their pedagogical innovations are propelling students through the system quickly and successfully. In Colorado public schools, we've been trying some of these approaches to the extent that we can, but the fact remains that we just don't have enough money to fully implement similar techniques, and even today, only about 1/3 of our teachers have had the professional development training that would enable them to use such techniques.

Archuleta: Pardon me, Dr. Coverdale, but aren't you admitting what I said before? In the last decade, K-12 education has remained behind the times—it's still mostly babysitting. Some high performing districts have figured it out, but many still have not. Corporate Colleges and Early Colleges are doing the job that needs to be done. How are we going to expand the promise to all of our citizens?

Riley: Unfortunately, ladies and gentlemen, our time is running out. John Prease, as you look back on the last decade, what strikes you as the most important benefit of the Corporate College movement?

The Case of Antoine Frazer

Antoine Frazer, a 15-year-old from La Junta, Colorado, has arrived at the crucial decision point of his adolescence: it is time for him to choose a career path. After analyzing Antoine's psychological profiles, merit test scores, and academic history, his Corporate College Advisor suggests that he enroll in PepsiU's executive training track. Antione, however, wants to devote his organizational and communication skills to finding solutions to global warming. His idealism is pushing him towards Harpo University's Political/Non-profit track, a year-old program. Once he makes his decision, he knows it will be next to impossible to change his mind—one feature of the corporate college system is its unwillingness to allow transfers between corporations unless they fall under the same multinational umbrella. Both institutions offer full tuition (underwritten in part by the Colorado Corporate Colorado Opportunity Fund), as well as room and board. Both institutions offer virtually guaranteed success (due to focused, day-long, modular instruction and readily available internships) and immediate employment upon graduation. But Antoine just can't decide whether to stick to his ideals or "take the high road," as his parents call it, and "go corporate." If you were Antoine, which direction would you choose?

Prease: To be honest, Jackson, it's a private, personal benefit. I look in awe at my father, this unassuming visionary who started the ball rolling back in 2007, and I notice the pride he feels in the assured success of his grandchildren, and in the future of the company he has given his life to. That's very gratifying and inspiring to me. Dad, hats off to you on this very special day.

Analysis of "Pepsi University" 2007–2020

Implications:

In this scenario, the 800 pound corporate gorilla dominates the education scene in every way, shape, and form. Brought on by declining affordability of public higher education, lack of quality in K-12, growing demands for a more highly-educated workforce due to globalization, and the slowness of public systems to adapt to changing times—big business gives up trying to "help," and simply moves in for its own benefit. Large corporations like Pepsi are able to set up shop, branches, franchises and establish well-regarded corporate "identities" within the education world, and society (and learners) eagerly respond. Pepsi University, Google University, Harpo University all represent the "in" brands of the decade and competition heats up among selective students to choose to attend the "best" brand. Corporate universities have the prerogative to be selective as the demand for their "product" is very high. Over time, they become increasingly selective and reach further into the educational pipeline to "lock in" the high achievers at early ages. Their influence begins to spread to K-12 education as well.

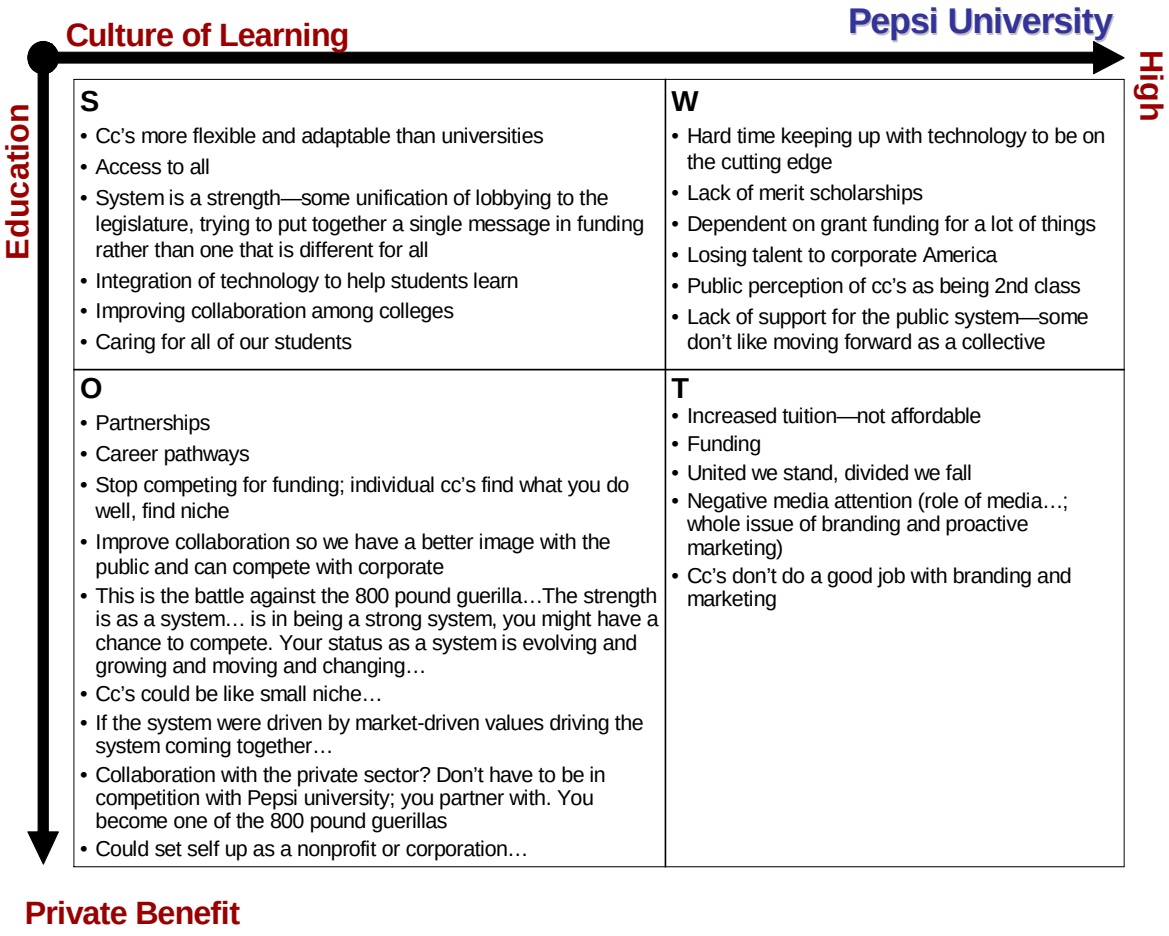
Public institutions are left to focus on the poor, under-served students who cannot pay much and public dollars are even fewer and further between. How can community colleges compete against these Goliaths, especially at a time when, socially, there is little regard for what used to be a civic purpose to education?

An overview of the strengths, weaknesses, opportunities, and threats for Colorado community colleges in this scenario is presented below (see Appendix D for a full page view).

"In 2020, is there such a thing as 13 colleges or is there one system with all these branches...Or, are there 6 or 7 colleges that have done things better than the others?"

--Envisioning the Future Participant

Implications for Scenario D: Pepsi University



S • Cc's more flexible and adaptable than universities • Access to all • System is a strength—some unification of lobbying to the legislature, trying to put together a single message in funding rather than one that is different for all • Integration of technology to help students learn • Improving collaboration among colleges • Caring for all of our students	**W** • Hard time keeping up with technology to be on the cutting edge • Lack of merit scholarships • Dependent on grant funding for a lot of things • Losing talent to corporate America • Public perception of cc's as being 2nd class • Lack of support for the public system—some don't like moving forward as a collective
O • Partnerships • Career pathways • Stop competing for funding; individual cc's find what you do well, find niche • Improve collaboration so we have a better image with the public and can compete with corporate • This is the battle against the 800 pound guerilla…The strength is as a system… is in being a strong system, you might have a chance to compete. Your status as a system is evolving and growing and moving and changing… • Cc's could be like small niche… • If the system were driven by market-driven values driving the system coming together… • Collaboration with the private sector? Don't have to be in competition with Pepsi university; you partner with. You become one of the 800 pound guerillas • Could set self up as a nonprofit or corporation…	**T** • Increased tuition—not affordable • Funding • United we stand, divided we fall • Negative media attention (role of media…; whole issue of branding and proactive marketing) • Cc's don't do a good job with branding and marketing

<u>Options</u>:

To meet the key challenges of this scenario, the CCCS needs to decide whether to compete directly with the 800 pound gorillas, possibly by becoming one, or to identify another market niche upon which to focus. Chances are that although some of the largest worldwide corporations would be likely to create a higher education "brand," not all will. Smaller, mid-sized companies may look to partner and collaborate with public institutions to offer more variety in the available educational opportunities. Some set of learners may seek to gain multiple skill sets and experiences rather than become "locked in" at such an early age. Perhaps community colleges can compete by being more agile and flexible than the corporate behemoths that are big and bold, but slow to move or change once established? Additional strategic options for community colleges in this scenario include:

"Halliburton has an extension school and you—in Trinidad—are a franchise. You rent space. You're the platform. Corporate Universities provide the content."

--Envisioning the Future Participant

- Be aggressive and clear on marketing strategies
- Focus on best niche—can't be everything to everyone
- Collaborate to form a more unified, seamless system; operate as a system of coordinated parts; possibly join together as one system, with branches, to survive and compete
- Partner with smaller companies (that don't want to start own university) and other higher educational institutions—fill that niche that's not getting filled by corporate U's (perhaps industry clusters or cc's operate as franchises of the corporate universities)
- Community college system transforms into a nonprofit as a platform that can receive government grants, but not dependent on government funding
- Focus on new/emerging market: baby boomers seeking new careers, but not interested in the corporate track—focus on the "senior brand"
- Look out for global opportunities to partner with higher education institutions from other countries

> *"Redefining ourselves is what we have to do in this world. If you're not going to compete, you're going to "niche-out." But, what you don't want to do, is simply be the place of last resort."*
>
> --Envisioning the Future Participant

Indicators:

Some of the trends and events that could signal the development of this scenario include:

- Increased demand for industry-focused higher education that public institutions cannot by themselves meet
- Establishment or expansion of corporate sponsorships in higher education and/or corporate universities
- Decrease in public funding for higher education

Appendix A: Drivers of Change Brainstorming Session, 5/31/07

Envisioning the Future of Community College in Colorado
CCCS, Session #1: May 31, 2007 -- Summary Notes

Drivers of Change	Key Issues
Funding	▪ Professional development, ▪ Compensation, attracting and retaining quality staff; succession planning ▪ Cost to students and employers; gap between those who can attend colleges those who cannot ▪ Succession planning to ensure continuity ▪ Political climate and competition ▪ Leadership at state and system level; we should empower leadership throughout the system, including students; empowering students to be the voice of CC ▪ Strengthen partnerships with community; Responding to business community demand is driven by community needs and interests; need business partners; Shared facilities and shared faculties ▪ COF and lifelong learners, limits on for lifelong learning in coming years ▪ Concern about going to voters; need informed voters who value education; must continually educate legislators (comm. college 101) ▪ Need to look for alternative sources; we need a larger picture of resources ▪ Use the foundation in a creative way ▪ Clarity of mission, legislation and policy will affect funding and governance ▪ Rural vs. urban funding issues, important to remember the important role that rurals play in mission
Immigration	▪ Implications for student preparation ▪ Language ▪ Will undocumented students be able to attend community college ▪ Do campuses and faculty reflect diversity
Technology	▪ Availability of; affordability of ▪ As threat (univ. of phoenix) or opportunity (if funding is available to invest) ▪ What kind of use; content area, knowledge base, and as a means ▪ Opportunity for instructional delivery, distance learning implications (relates to funding and energy); using fiber connections (tutor/school anytime any where) ▪ Need to be innovative and at the same time flexible to respond to students who are not comfortable with it ▪ Must “stay ahead” and not “keep up” ▪ Digital immigrants teaching digital natives; ▪ Competition with public schools that have better technology; kids come expecting it
Energy	▪ Cost of doing business ▪ Accessibility

	▪ Renewable energy
Globalization	▪ Flat world; interconnected world; borderless world ▪ Ease of access for students worldwide will drive demand ▪ Need for business partners ▪ This is the context for all we do; must be role models in the community; Aurora as global community
Workforce demands	▪ We must respond to workforce needs in the community ▪ Demand is driven by what industries are in the local area
Student demands and expectations	▪ Expectations for more advanced technologies ▪ Changing demands of students; want degrees fast and on demand ▪ Students view education as a means to an end/not an end in itself ▪ Definition of a completer, many fields, not a degree
Time Factor	▪ How long it takes to make change in the system ▪ 202 seems far, but actually it is right around the corner

CCCS-Workshop #1: Summary of May 31st Brainstorming Session on Drivers of Change

The following matrix summarizes the results of participants' brainstormed lists of the most critical "drivers of change" affecting the world at large, education in general, and community colleges in Colorado, more specifically. Results for each broad category were aggregated according to key themes that emerged. Each key theme is given a broad title, and appears in ***bold and italics***. Participants' "dot votes" were then tallied and the total votes for each item appear to the right of the item while the total vote for each theme appears in the left hand column. Aggregate results across all three broad categories can be found at the end of this document.

Total Votes	WORLD Drivers of change	*Total Votes*	EDUCATION Driver of change	*Total Votes*	COMMUNITY COLLEGES IN CO
104	***Globalization (68)*** • Flat, interconnected, drives demand • Cross-borders, virtual community; China/India ▪ economics (14) ▪ job types (10) ▪ Outsourcing (3) ▪ US reputation (3) ▪ economics of social systems (2) ▪ flat theory (2)	***113***	***Economy*** • Global competition (28) • Workforce demands (specializations) (28) • Workforce development, business needs (19) • employment trends (8) • responsive to business and industry (5) ▪ manufacturing—service (5) ▪ info explosion & globalization (4)	***368***	***Funding (170)*** • high student cost; affordability and cost (42); • COF; tuition (32), • low faculty pay; compensation (31); • TABOR (18); • scholarships (18); • financial aid (16), • changing economy (12) • Financial aid outdated (11) • funding mechanisms (10);

	▪ collaboration ▪ explanation (world planet) (2) ▪ innovation ▪ business, industry, and commerce ▪ world economy		▪ workplace training re-training (4) ▪ market analysis (3) ▪ scientific advancements (3) ▪ innovation (3) ▪ jobs/careers (3) ▪ industry ▪ engineers ▪ employer education ▪ globalization		• access (8) • external funding (7); • enrollment (6) • HB 1023 (3); • salaries (2) • alternative additional funding • Local economies • budgets • constitutional amendments • grants • scholarships • border state tuition • poverty • compensation
97	***Technology*** (staying ahead, immigrants teaching native students); and funding of; creating new learning tools for different groups; training and integration in class and other processes	***108***	***Population/Demographics (30)*** • Immigration (legal and illegal) (51) • Cultural differences, values (12) ▪ culture (8) ▪ language (5) ▪ peer pressure (2) ▪ cultural competence	***158***	***Technology; distance learning*** ▪ Technology (71); ▪ distance learning; instructional delivery; demand for online; course delivery (44) ▪ technology (availability of); (23) ▪ banner; use of student info (13) ▪ tech sustainability (5) ▪ cost of tech programs (2) ▪ digital divide ▪ online international education
81	***Demographics/Population (41)*** ▪ immigration (25) ▪ aging population (7) ▪ migration/immigration (6) ▪ language (2) ▪ population growth	***85***	***Technology (63)*** ▪ delivery system, virtual learning, online (9) ▪ technology & integration (7) ▪ digital divide (4) ▪ instructional delivery (2)	***153***	***Public Policy/Leadership/Governance*** ▪ leadership (45) ▪ legislation; policy audit needed (need clarity here, consistency, consensus) (21) ▪ mission clarification (defined role and scope of mission, different missions, changing mission); "all things to all people" (20) ▪ governance of higher education (18)

					▪ political climate (11); ▪ politics (10) ▪ constitutionalize ed to students & employees (8) ▪ 4 year college policies (8) ▪ Succession planning (5) ▪ accountability (4) ▪ accreditation changes (2) ▪ regulations (1) ▪ unfunded mandates ▪ conflicting mandates ▪ legal issues ▪ 4 year institutions ▪ Systemic foundation vision ▪ Structure of system in future ▪ Local control ▪ Institutional research
73	***Environment*** ▪ Energy, fuel (19) ▪ alternative energy (15) ▪ environmental problems (14) ▪ climate change; global warming (8) ▪ water, oil (6) ▪ natural resources (4) ▪ agriculture; food source (3) ▪ food production (2) ▪ nuclear power (2) ▪ natural disasters (1)	***84***	***Finances (personal and public)*** ▪ Funding (36) ▪ Cost; affordability (33) ▪ economy (4) ▪ enrollment trends (4) ▪ $$ tax and wealth level of students (3) ▪ resource availability (2) ▪ income disparity (2) ▪ money ▪ financial aid	***148***	***Flexibility; Agility (entrepreneurialism) , adaptability*** ▪ responsiveness; flexibility; adaptability (55) ▪ competitiveness, competition (39) ▪ cooperation (14) ▪ capacity limitations; human capacity (9) ▪ scheduling (7) ▪ competition (inter); cccs system; Competition proprietary, independence (14) ▪ compete (external) (5) ▪ customization; personalization (3) ▪ individualized flexibility (2) ▪ balance between college and statewide interests ▪ change in # of colleges ▪ local control
62	***Economics***; Economic disparity (many dimensions); haves, have-nots (42) ▪ job types (10)	***75***	***Education System Quality Issues*** ▪ under-education, college readiness, un-preparedness, remediation (26)	***130***	***Economic development*** ▪ workforce demands; industry trends (56) ▪ responsive to business and

	▪ wealth/economy (5) ▪ economic disparity (many dimensions), haves & have nots (3) ▪ poverty (2) ▪ standard of living ▪ disparate housing		▪ K12 quality; (achievement gap; teaching to the test; graduation rates) (14) ▪ P20 (10) ▪ Seamless process (8) ▪ Retention & graduation (7) ▪ requirements for 12th grade (4) ▪ 5th year programs (5) ▪ Adult remediation (1) ▪ K12 labor unions ▪ Curricular congruence and horizontal alignment ▪ Expectations in education		industry (19) ▪ industry partnerships & niche markets; partnerships (18) ▪ globalization (11) ▪ job opportunities (10) ▪ job placement (8) ▪ work with industry (3) ▪ CO imports its workforce (2) ▪ low unemployment (1) ▪ demand for community education (1) ▪ retraining; workforce (1) ▪ voc-tech costs ▪ career development centers
45	***Political power shifts; politics*** ▪ Political power shifts (34) ▪ leadership (4) ▪ ideological differences (3) ▪ religion (4)	***59***	***Public Policy*** • Govt., regulation (local, state, national) (16) • Access (18) • quality/accountability, (CSAP, NCLB) (11) ▪ leadership (6) ▪ government oversight & accountability (5) ▪ effective management & evaluation (3)	***113***	***College Readiness/Remediation*** • Unprepared students; lack of preparation; academically unprepared; education standards and expectations; quality of education & priorities; student success; Colorado paradox (69) • retention (18) • remediation (12) • # of HS graduates; graduation rates (6) • ESL (6) • student participation patterns (2) ▪ enrollment fluctuations
37	***War, Terrorism, Conflict (34)*** ▪ homeland security (2) ▪ xenophobia (1)	***32***	***Recruitment & Retention of Faculty*** • Recruitment, retaining faculty & administration (13) • Compensation, merit-based (9) • Aging workforce (6) • Quality teachers; qualified teachers (4) • professional development • # of educators	***103***	***Demographics, Student Population*** ▪ Diverse student population, multiculturalism (77) ▪ immigration (13) ▪ language barriers (6) ▪ melting pot (4) ▪ Generational divide (3) ▪ diversity ▪ language ▪ gender shift

16	***Health risks (9)*** ▪ health and disease (2) ▪ pandemic (3) ▪ infections (2) ▪ global health	***28***	***Public Perception/Public Relations*** ▪ Parental buy-in; societal buy-in (12) ▪ Societal values (8) ▪ attitude and reputation; public perception (8) ▪ Voter turnout	***75***	***Public Perception & Community Support*** ▪ Image of CCCS/community college; PR, public perception (25) ▪ marketing the college; outreach (18) ▪ political climate (9) ▪ value of education (6) ▪ community relationships (5) ▪ public awareness of the issues (4) ▪ communication (3) ▪ relevance (3) ▪ reputation (2) ▪
13	***Education (13)*** Skill levels	***25***	***Customization*** ▪ Individualization (9) ▪ multiple careers in a lifetime (7) ▪ custom education/privatization (6) ▪ individualized flexibility (3) ▪ increased privatization	***65***	***State Geography*** ▪ rural/urban, geographical barriers (35) ▪ urban vs. rural (13) ▪ community demand (9) ▪ local population growth (8)
13	***Culture*** ▪ Family values; social values (5) ▪ cultural blending (5) ▪ Family (3)	***12***	***Politics***	***57***	***Recruit and Retain Quality Staff*** ▪ Recruit and retain faculty (29) ▪ Aging workforce; retirements (16) ▪ Compensation, relevant reward system (7) ▪ qualified staff (4) ▪ PERA (1) ▪ Increase in full time faculty
9	***Infrastructure*** •Transportation (5) ▪ Mobility (4)	***4***	***Mental & emotional issues*** • Health care (6) • Security issues	***50***	***P20 agenda/continuity*** ▪ P20 system; P20 agenda, continuity (17) ▪ K-12 policies (16) ▪ K12 content standards (7) ▪ removing the silos of

					education (4) ▪ education gap (3) ▪ Disconnect with K-12 and universities ▪ seamless transfer/alignment (3) ▪ communication and cooperation across colleges; transfer ▪ articulation
7	***Peace (7)***			***37***	***Collaboration and Partnerships*** ▪ partnerships (17) ▪ business partners (9) ▪ partnerships with communities (8) ▪ collaboration (between colleges) (3)
4	***Gov. ownership of land***			***28***	***Student Services (5)*** • transfer, advising, counseling (11) • social activities (5) • health services (clinical sites for health) (5) • mentoring (2) • linguistic center • special needs; fragile students
3	***Communication (3)*** ▪ information/media			***13***	***Facilities Issues*** • facilities/infrastructure (7) • security (6)
1	***Health care, medical advances*** Life expectancy Public health Biomedical research			***13***	***Curriculum*** • Consistent (10) • Lifelong learning (3) • learning styles • service-learning • Multiple careers in a lifetime

Aggregate Results across All Three Broad Categories

Some themes appear across all three broad categories. To gain a sense of the aggregate perception of the most critical drivers of change affecting community colleges, votes across all categories have been tallied and appear, below. Based on the results, the top ten drivers of change among participants included:

11. Funding and Finance issues (Total Dot Votes = 452)

12. Globalization and the Economy (Total Dot Votes = 409)

13. Technology (Total Dot Votes = 340)

14. Population and Demographic Changes (Total Dot Votes = 292)

15. Politics, Political Shifts, Public Policy, Leadership & Governance Issues (Total Dot Votes = 269)

16. Systemic Education Issues, Quality of Education (and preparedness of students) (Total Dot Votes = 251)

17. Flexibility, Adaptability, Customization, & Individualization (Total Dot Votes = 173)

18. Public Perceptions & Public Relations (Total Dot Votes = 103)

19. Recruitment & Retention of Faculty and Administration (Total Dot Votes = 89)

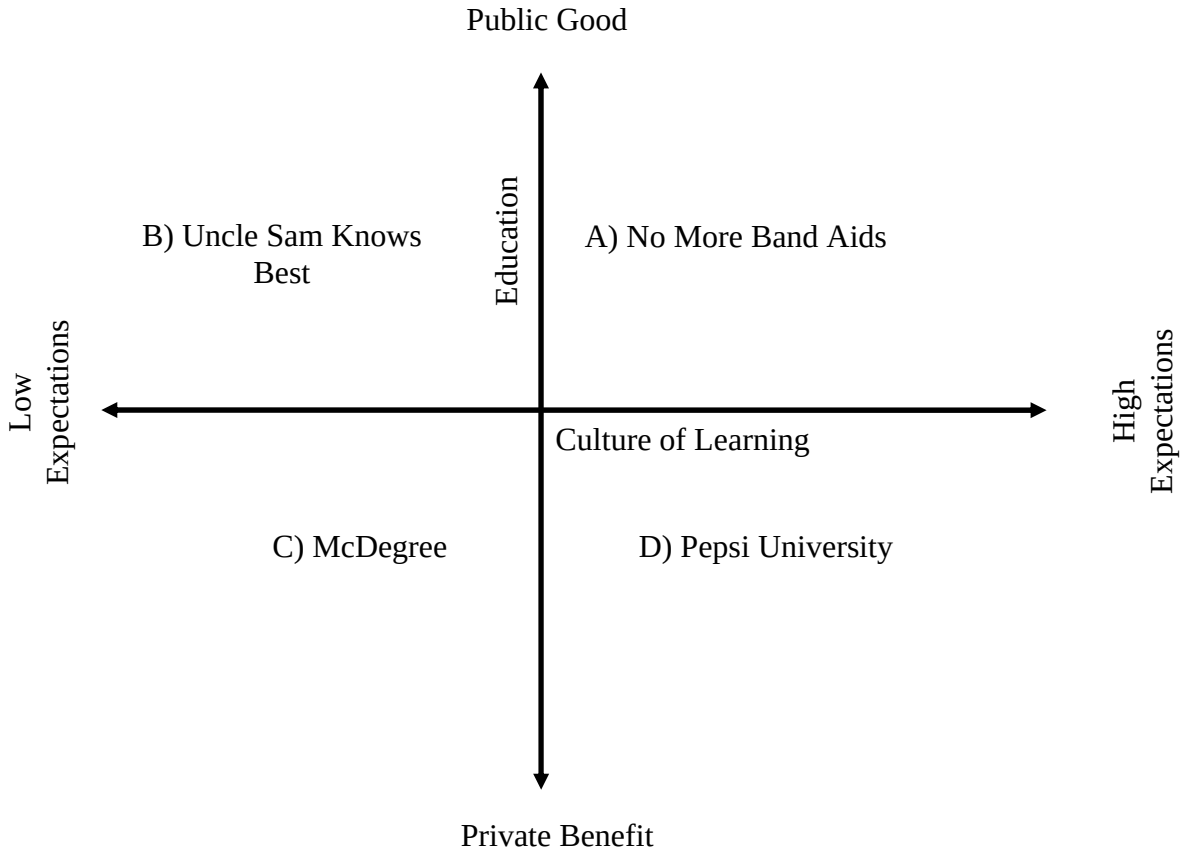
20. Environmental Issues (Climate change, energy, etc.) (Total Dot Votes = 75)

Appendix B: "Draft" Deep Causes and Storyboards for Each Scenario

Focal issue:

What will be the demand for Colorado community college services in 2020?

Scenario Framework:



Deep Causes & Headlines:

A) Education = Job #1 (or, "Things Got Worse Before they Got Better")
Public Good/ High Expectations

- Social
  - Recognize on individual and societal level that education is important and necessary
- Technology
  - Creates more opportunities
  - Increased access, high touch tech
- Environment
  - Social conscience
  - Paying attention to global community
  - Increased access
- Economy
  - Post-recession
  - P20 types
- Politics
  - P20 types
  - Funding education correlates to decreased social services
  - Costs, Increased GNP, Increased compensation, globally

- Things got worse before they got better (a slap in the face to cause a shift)
  - Some sort of national trigger or crisis led to public/concerted effort. trigger such as
    - Terrorist attacks
    - EU develops a stock exchange (on the rise)
    - China develops
- National Security
  - China technology dominates space
  - China technology develops anti-missiles
  - Terrorists achieve and threaten bio-weapons
  - Re-alignment of global allies
- Global Economic Competition
  - US loses economic lead'

    - Private enterprise demands educated workforce
    - Alternative energy needs
- NCLB works!
- Trust in education leaders increases!
- P20 system, nation-wide, pre-school to PhD
- Success of education leads to decreasing poverty, other social issues
- In 2009, President X indicted for corruption (political scandals cause education to become popular)
- Less remediation
- K12 will be ready for college or higher ed
- Informed, educated electorate
- Higher standard of living
- Better and more paying jobs
- Could generate more resources; programs
- More parental support and engagement
- Technology is embraced
- CCCS could thrive and expand

Possible Headlines for the "Education = Job #1"

Year	Headlines
2007	• As America slips behind, leaders question why? • Company X puts pressure on lawmakers to fund education; need stronger workforce • Cold-fusion is discovered in Latvia • Data show home-schooling and charter schools not adequately preparing students
2009	• President __??__ identified as source for security leak • England breaks allegiance with US • European Union emerges as top stock exchange; how will we react? • Back to basics to train workforce • NCLB demonstrates improvements; gains popularity • 13,000 people die in Denver as a result of bio-terrorism • India announces as world technology leader: new rules for computer standards • Americans fed up! Stop outsourcing our jobs! Business responds. Lobbies politicians
2011	• China succeeds in building anti-missile • 79% of US Congresspeople have been charged with crimes • Accountability and standards reach peak

2013	• Trust in education leaders grows: we can educate all students • Education system converted to comprehensive P20, nationwide • Success of recent education reform inspires more ideas • Manual High School overflowing and boasting 98% graduation rate! • New preschool to PhD initiative a reaction to overseas success in science and technology • Major military communication satellites stop working
2015	• Higher ed receives record funding • Aurora businesses vie for graduates of CCA • Colleges bursting at the seams in enrollment

B) Uncle Sam Knows Best

Public Good/Low Expectations

- Social
  - On-demand society/instant gratification
  - Consumer society (Walmart rules)
  - Work ethic drops, declines
  - Less educated workforce
  - Increased parental apathy
  - Given up—settled for mediocrity
  - General population doesn't embrace academic rigor or understand it
  - Students want the paper—don't care about the rigor
- Technology
  - Technology allows "laziness"
  - Is easy to get
- Economy
  - Economic stratification deepens
  - Lost competitive edge, globally
  - Recession
  - Lagging globally
- Environment
  - High paying jobs offshore
  - Economy stagnates
  - Russia, China, India outpace US and community colleges

    - Education is funded, standardized curriculum
- Politics
    - Policymakers see public education as public good
    - Keep repeating same mistakes in education
    - Policy makers keep trying by putting up more controls, constraints
    - Tradition rules

- Less market based; increase in diploma mills (govt funded)
- Changing demographics (immigration)
- Current US parenting styles (coddled, spoiled children)
- Settling for mediocrity
- Distractions (technology, entertainment)
- Culture of instant society
- Celebrity worship (sports, music, etc.)
- Cultural depression due to global flattening
- Settling for mediocrity
- Massive loss of high tech jobs to China, India, Russia
- Massive loss of high tech jobs
- 2007 Microsoft??
- US economy in depression
- Support for public education increases
- 2015 China opens a community college system
    - US Dept of Education responds
- Per capita income drops
- Online testing is federally funded
- Mediocrity
- Dumbing down of education
- Socialism
- Decreased values in homes, jobs
- Increased corruption; “one-size fits all”
- Jobs leave Colorado; not come to Colorado
- Standardization
- Increased power of school unions

- CCCS currently

Possible Headlines for the "Uncle Sam Knows Best Scenario"

Year	Headlines
2007	• Microsoft opens R&D facility in Beijing, hires 1200 Chinese engineers • New study shows parents coddle kids • Bush allows illegal immigrants US citizenship • Britney gets CU honorary doctorate
2009	• US imports78% of its corn from China and Russia • NCLB allows vocational tracks, beginning in middle school that prepares students for service jobs • 30% of teens seek plastic surgery to look like celebs • Viral pandemic, bird flu on the rise
2011	• American spirit is wilting as China and India pull ahead • US economy in deepest depression since 1929 crash, due to globalization • Parents complain that students don't have enough time for sports and demand half-day school • Increasing homeless elderly population in Arizona, Florida, & Colorado, straining public resources • Poll shows support for public education increasing • China completes 2-rivers dam. Electricity in rural China sparks business and manufacturing boom • US Dept of Education begins massive parent education effort in an attempt to improve readiness of preschool students
2013	• Federal taxes reach all time high. Taxpayers refusing to file • US is borderless country (one world) • China opens community college system that feeds into universities, ending US dominance in higher ed • Social security benefits halved. AARP members outraged! • US Department of Education funds massive study to find solutions to declining education level in the United States • US accreditation bodies fold • Short term certifications for specific jobs are comprised 25% of higher ed
2015	• Brittney Spears is given honorary PhD at Harvard • 90% of Congress attended public education institutions • Cherry Creek Schools abolish all homework: parents elated • Public school teachers are certified with 12 credits • Taxes go up to support baby boomers' retirement & social security
2018	• 83.6% of 18-32 year old unemployed and living with aging parents • Emigration to India increases • General education requirements no longer part of community college degree requirements

	• Chinese engineers develop new levy system for New Orleans. $450 trillion dollar cost strapping Louisiana budget
2020	• Community colleges taught in Spanish as first language • 20 hour US work week weakening the economy • Chinese people are increasingly dissatisfied with high economic disparities. Social revolution looms. • Sony sponsors free lunch programs and video games in US public schools • Per capita income drops for working adults for 13th year in a row. • US pharmaceutical companies import majority of drugs from India. US regulators questioning quality control • Online federally funded interactive testing outcomes available in real time to parents, teachers, and federal regulators available

C) McDegree (or "McDiploma")

Private Benefit/Low Expectations

- Social
  - Social disillusionment with higher ed
  - Students who can afford education only
  - Want fast/cheap certifications
  - Population continues to operate in "Brittney Spears" mode
  - Need for immediate gratification
  - Industry frustrated with higher ed—steps in
  - "Walmart-ization" of higher ed
  - High volume, superficial quality, generic brands
  - Want low-cost, quick paper

- Technological
  - Bare bones
  - High tech, high costs goes private, overseas, is outsourced
  - Less regulation, more individualized
  - Less standardization

- Environment
  - Colorado paradox continues

    - Flood of poorly educated immigrants
    - Less regulation
    - Difficulty attracting skillful teachers
    - More privatized education
    - Fierce competition
    - Increased diploma mills (private)

- Economy
    - Decreased resources for higher ed
    - Increased national debt
    - Decreasing GNP
    - Focus on getting a quick job
    - Totally market-driven

- Politics
    - Decreasing financial aid
    - Decreasing state funding
    - TABOR strengthens
    - Less political influence

- We keep going along the way we are ("going along to get along")
- Disillusionment with higher ed
- Brittney Spears/immediate gratification
- "Walmart-ization" of higher ed (e.g., Walmart Community College)
- Colorado paradox continues
- Flood of poorly educated immigrants
- Bill Gates buys technical schools
- Decreasing resources/more national debt
- TABOR still here; it spreads to the national level
- War with Iran, N. Korea
- "Student wins lawsuit for being failed"
- Community colleges limit access
- Limited access

- Uneducated population
- Selfish—educated vs. uneducated gaps
- Equity
- Consolidation of power
- Fewer educational choices
- 3rd world environment for Colorado
- Welfare state

Possible Headlines for the McDegree Scenario

Year	Headlines
2007	• US declares ware on Iran, Russia, and N. Korea • Students win landmark lawsuit for being failed. Claims "intellectual harassment." • Influx of foreign tech professionals to Colorado causes real estate prices to spike
2009	• HP closes down and moves to China • All degrees and certificates are market-driven • Average class size is 500 (all delivery formats) • Community college limits access due to financial constraints
2011	• Google Community College market leader in tech training • Walmart Community College dominates Colorado developmental market • 50% Colorado community colleges close in consolidation • 2010, Ref C expires, TABOR returns • Backlash closes CC system, attempts to get around TABOR piss off voters
2013	• 2012, Colorado contracts with University of Phoenix to deliver job training • Baby boomers vote for huge social security raise, generational disputes ensue • 2014, Microsoft moves headquarters to China • Walmart Community College abandons immigrant market
2015	• Federal financial ad program abolished • Bill Gates buys all remaining engineering & tech schools in the US-only rich can apply
2017	• Regional accreditation agencies are disbanded • Colorado provides more resources to immigrants' social services, less education
2020	• Social security and health care take lion's share of budget, all education privatized

D) Pepsi University

Private Benefit /High Expectations

- Social
    - Citizens recognize personal benefit with investment in education
- Technology
    - Market-driven
- Environment
    - Increased educational resources from business
    - High demand for quality
    - Decreased access
    - Increased divide between haves and have-nots
- Economy
    - Companies sponsor education and get curriculum and "credentially of skill sets"
- Politics
    - Agrees it's critical, but no government funding available

- Economic downturn
- SPUTNIK-like reaction
- Increase in merit-based, market—based solutions
    - Ability tracking reigns
- Decreased access; increased gaps; decrease in needs-based aide
- 2007 public schools fail
- 2009, Gates University opens
- 2011, only 5% of the top scientists are from the US
- 2013, 1st graduating class from HARPO University
- Artificial intelligence proliferates
- US enrollment in Indian Universities on the rise
- Sputnik reaction by private desire
- Fragmentation
- Market-driven because of global pressures
- Move from traditional education to "skill clusters"
- Educate the best and brightest ("merit based")
- Fear of falling behind, because of economic downturn, outsourcing
- Experiencing the reality
- Individualized education

- Business and industry developing tools for training
- Corporate leadership or backlash
- K-12 or P-20 fails; NCLB and other government-driven efforts fail; (???); industry steps in
- Political climate is directed towards a free climate
- Restricted access
- Bigger gaps between "haves and have nots"
- Increased merit-based aid, decreased needs-based aid
- Recruiting for best at earlier age
- Ability tracking and interest tracking for private benefit
- Variety of educational opportunities
- High cost of education
- Highly competitive
- Decrease in community colleges

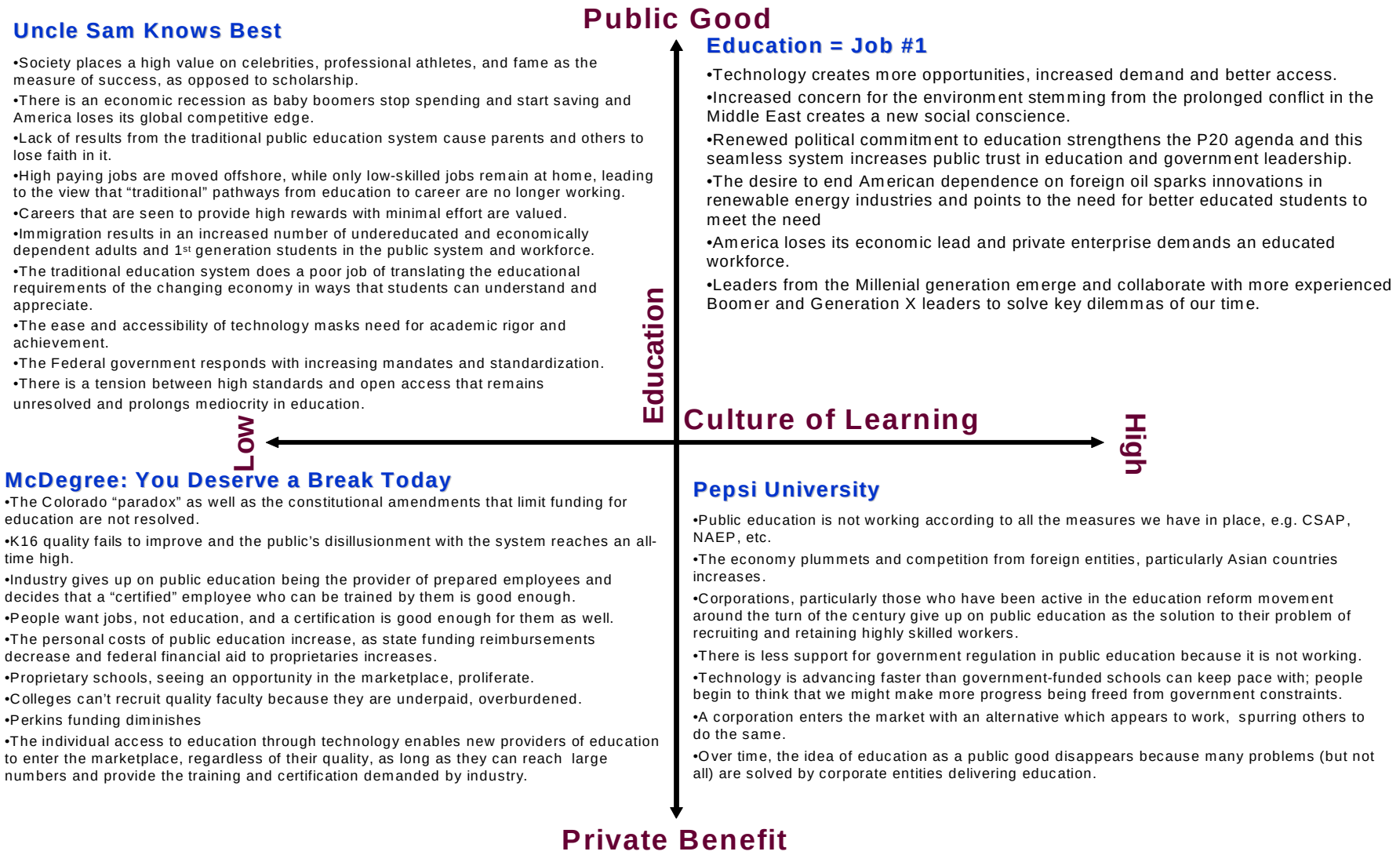
Possible Headlines for the "Pepsi University Scenario"

Year	Headlines
2007	• Five public schools (Agular school district, Denver Middle School...), fail to meet expectations and are closed • K12 failing; all are tired • Denver Post: It's Official, CDOT budget 3-times bigger than higher education
2009	• Gates University opens in Colorado Springs • Career assessments move to Junior High • NCLB fails to bring K12 to grade-level literacy • New Congress denounces NCLB • Denver Public Schools students receive top merit scholarship funded by Bill Gates
2011	• Political news: Legislature votes down higher education bill for increased funding • Only 5% of world's top scientists are from US • Federal and state needs-based financial aid slashed; major report declares "little benefit from great cost" • Rocky Mountain News: TABOR bankrupts state COF • EU Universities refuse US matriculation • Germany stops accepting US work visas
2013	• First graduating class of Oprah's HARPO University • Outsourcing leads to record unemployment rate • Technical trades—plumbing, electricians, construction, heavy equipment—desperate for workers as baby boomers retire

	• India develops artificial intelligence capable of reprogramming itself to adopt new challenges • Federal financial aid fails and is de-funded • US enrollment in Indian universities on the rise
2015	• Colorado 3rd graders will sit for employability skills testing to determine career track • Mars mission find private support from international space corporation • Career assessments moving to elementary schools • "Back to Sputnik" race to educate is on
2017	• Needs-based aid at all time low • Corporations searching for talent in K12 • Natural disaster wipes out two continents, third in peril
2020	• US average family income and buying power now at lowest level • Biggest gaps on record between educated & uneducated • International space corporation spans continental borders to stop apocalypse

Appendix C: Final Deep Causes for Each Scenario

Deep Causes: *What events could lead to this scenario? What would have to happen between now and 2020 for the world described here to be possible?*



Uncle Sam Knows Best

- Society places a high value on celebrities, professional athletes, and fame as the measure of success, as opposed to scholarship.
- There is an economic recession as baby boomers stop spending and start saving and America loses its global competitive edge.
- Lack of results from the traditional public education system cause parents and others to lose faith in it.
- High paying jobs are moved offshore, while only low-skilled jobs remain at home, leading to the view that "traditional" pathways from education to career are no longer working.
- Careers that are seen to provide high rewards with minimal effort are valued.
- Immigration results in an increased number of undereducated and economically dependent adults and 1st generation students in the public system and workforce.
- The traditional education system does a poor job of translating the educational requirements of the changing economy in ways that students can understand and appreciate.
- The ease and accessibility of technology masks need for academic rigor and achievement.
- The Federal government responds with increasing mandates and standardization.
- There is a tension between high standards and open access that remains unresolved and prolongs mediocrity in education.

Education = Job #1

- Technology creates more opportunities, increased demand and better access.
- Increased concern for the environment stemming from the prolonged conflict in the Middle East creates a new social conscience.
- Renewed political commitment to education strengthens the P20 agenda and this seamless system increases public trust in education and government leadership.
- The desire to end American dependence on foreign oil sparks innovations in renewable energy industries and points to the need for better educated students to meet the need
- America loses its economic lead and private enterprise demands an educated workforce.
- Leaders from the Millenial generation emerge and collaborate with more experienced Boomer and Generation X leaders to solve key dilemmas of our time.

McDegree: You Deserve a Break Today

- The Colorado "paradox" as well as the constitutional amendments that limit funding for education are not resolved.
- K16 quality fails to improve and the public's disillusionment with the system reaches an all-time high.
- Industry gives up on public education being the provider of prepared employees and decides that a "certified" employee who can be trained by them is good enough.
- People want jobs, not education, and a certification is good enough for them as well.
- The personal costs of public education increase, as state funding reimbursements decrease and federal financial aid to proprietaries increases.
- Proprietary schools, seeing an opportunity in the marketplace, proliferate.
- Colleges can't recruit quality faculty because they are underpaid, overburdened.
- Perkins funding diminishes
- The individual access to education through technology enables new providers of education to enter the marketplace, regardless of their quality, as long as they can reach large numbers and provide the training and certification demanded by industry.

Pepsi University

- Public education is not working according to all the measures we have in place, e.g. CSAP, NAEP, etc.
- The economy plummets and competition from foreign entities, particularly Asian countries increases.
- Corporations, particularly those who have been active in the education reform movement around the turn of the century give up on public education as the solution to their problem of recruiting and retaining highly skilled workers.
- There is less support for government regulation in public education because it is not working.
- Technology is advancing faster than government-funded schools can keep pace with; people begin to think that we might make more progress being freed from government constraints.
- A corporation enters the market with an alternative which appears to work, spurring others to do the same.
- Over time, the idea of education as a public good disappears because many problems (but not all) are solved by corporate entities delivering education.

Appendix D: Implications-SWOT (Strengths, Weaknesses, Opportunities, & Threats) Analyses

Public Good — **Education = Job #1**

S

- Adaptability and flexibility, in the context of what the 4-years do. Competition becomes more with the other public institutions
- Network of colleges that is widely, geographically distributed across the state; if colleges become a vehicle for access, etc. cc's more dispersed than other higher eds—provide the best platform
- Cc's are more closely tied to the communities, in terms of networking, responsiveness, engagement, and a civic mission
- Cc's are teaching focused rather than research focused—we try to impact individual students
- Open access
- Open entry to a wide variety of programs, CTE and transfer; breadth of mission
- Public support by default

W

- Funding base…
- Stigma of cc's perceived as 2nd class vis a vis research institutions
- Identified traditional structure—rigidity in delivery and format; one hand flexible, but on other, not as much (which public entity would be most available to capture the increase in public funds)
- Attracting and retaining qualified staff

O

- Government political support to help stabilize the public support
- Develop deep relationships and partnerships with high schools, 4-years, businesses, and nonprofits;
  - Lifelong learning—opportunity to keep adding value to education
  - 21st century skills
- New form of education… no longer CTE/liberal education (separately)… no university can do that. Only cc's can do that
- Cc's are a middle ground and uniquely positioned to expand in multiple directions
- To take our rightful place in P-20…capitalizing on P-20 right now
- Community colleges offer more certificates and programs in renewable energy or other high demand industries
- Role of system?

T

- High schools do their job…and no more demand for remedial education
  - –If cc's don't compete well in areas of value and academic rigor now demanded by the newly well-educated society
- CSU-CU (elite colleges) dominate funding based on perception
- The return of the value of high expectations could shift the focus of higher education equating to 4-year institutions and K-12 so community colleges get lost in the shuffle
- Private schools…high brand schools
- Proprietary schools
- Important to position selves as uniquely qualified to do something that no other part of the system can do

Education (Low → High)

Culture of Learning

Uncle Sam Knows Best

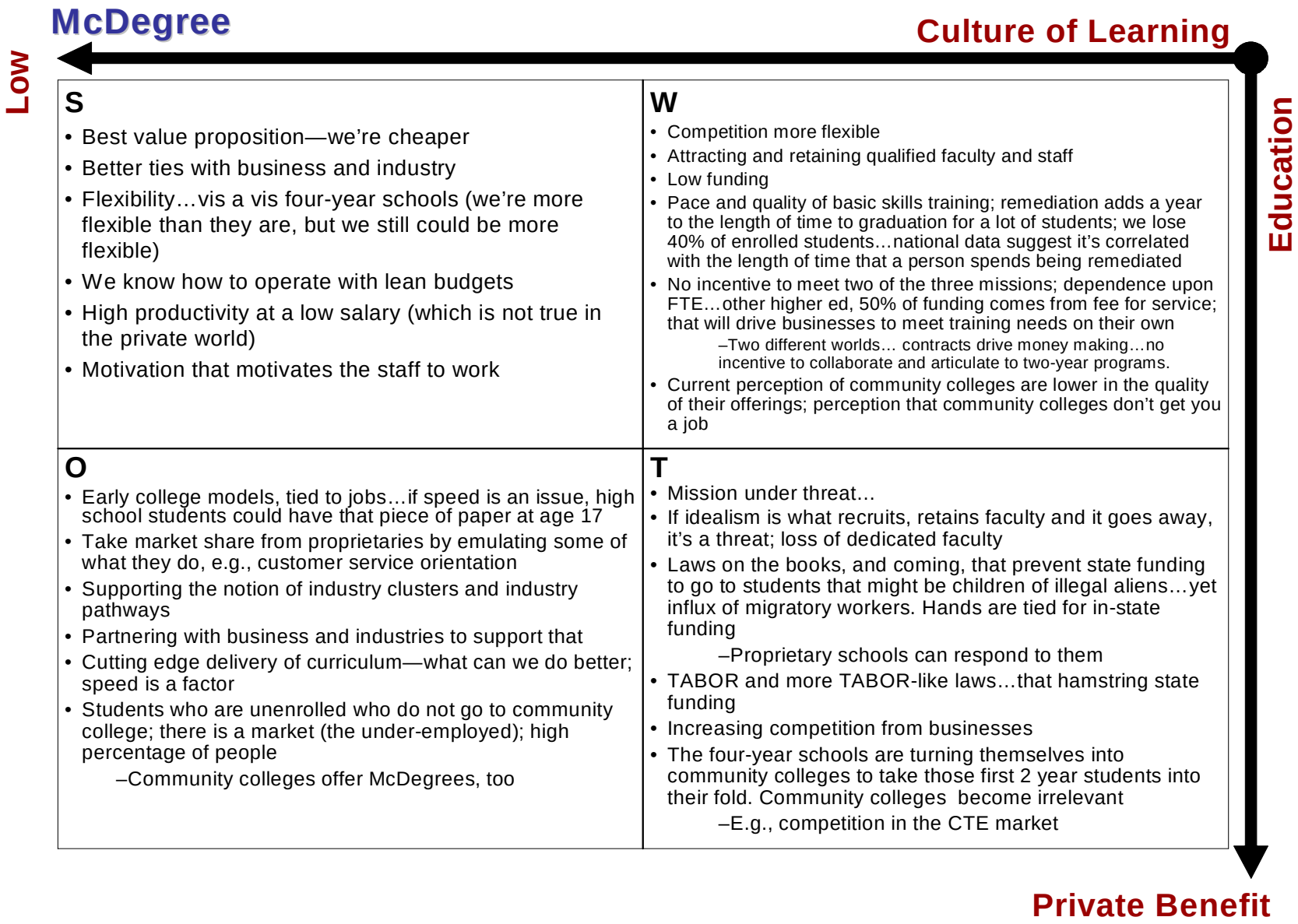
Public Good

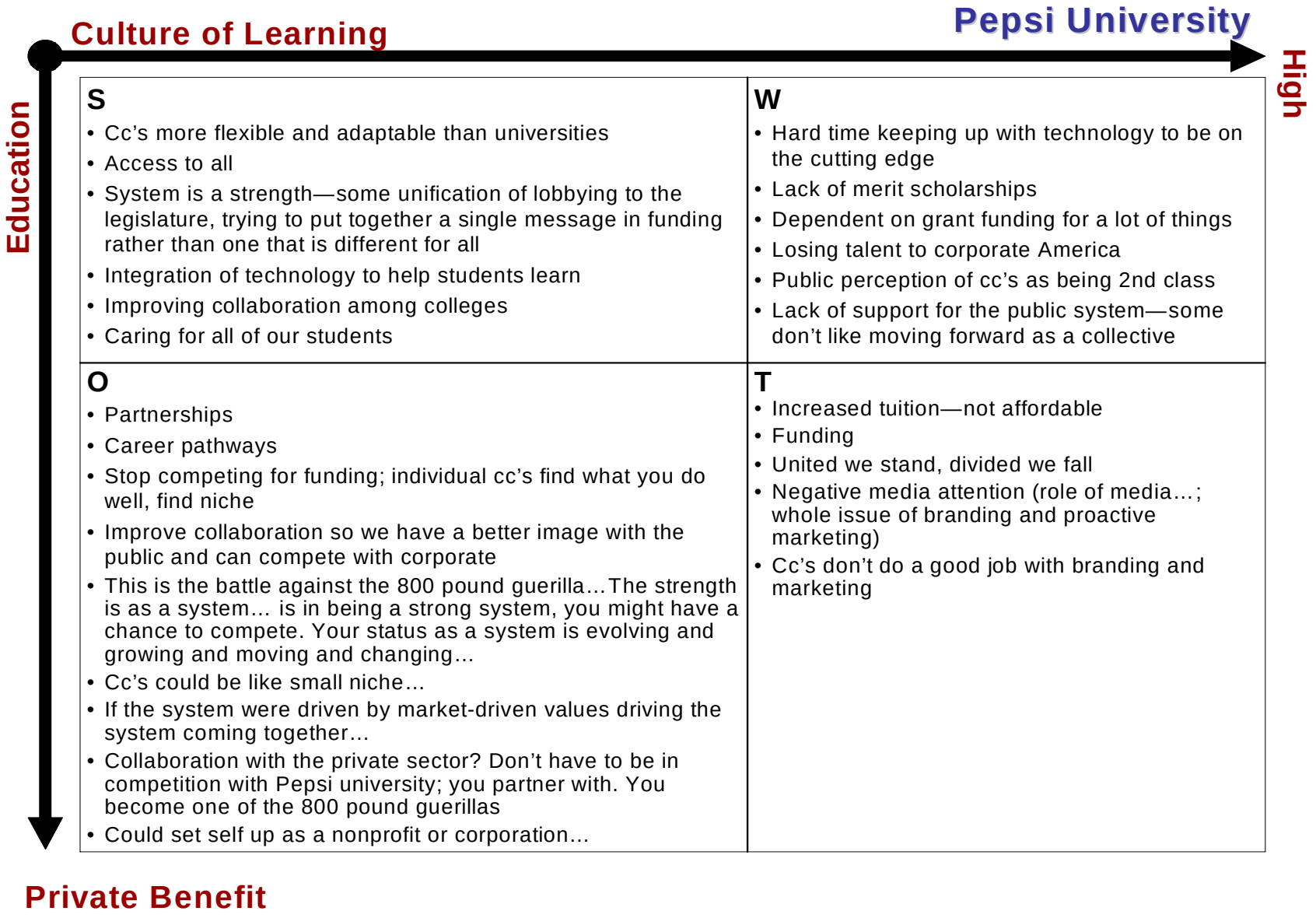
S • Commitment to remediation • Providing education for the service sector • Continued access to public policy and funding—we still have access to public funding • This is the world we're in and we're surviving okay	**W** • Lack of appeal to students who don't see as delivering jobs • Limited flexibility; public policy brings stricter controls because they're alarmed about the lack of rigor so they're mandating, mandating, mandating
O • Prospective students don't see connection b/w their goals/aspirations in the changing world…what are the jobs and careers; career education products that help individuals see the connection between career aspirations and programs that will train them for those aspirations • Demonstrating support for public outcomes • Demographic shift increases number of people who need community college services – If a lot of people in lousy public school system—will be high demand for community college system • Integrate academic and technical education— • Only way to survive is finding ways to innovate and demonstrate affect of innovations	**T** • Mandates means that funding is tied to narrow outcomes • Lack of adequate funding • Lower success rates in college level work • Difficulty filling classes with higher skill levels • Under-enrolled classes in higher levels

Education

Low

Culture of Learning

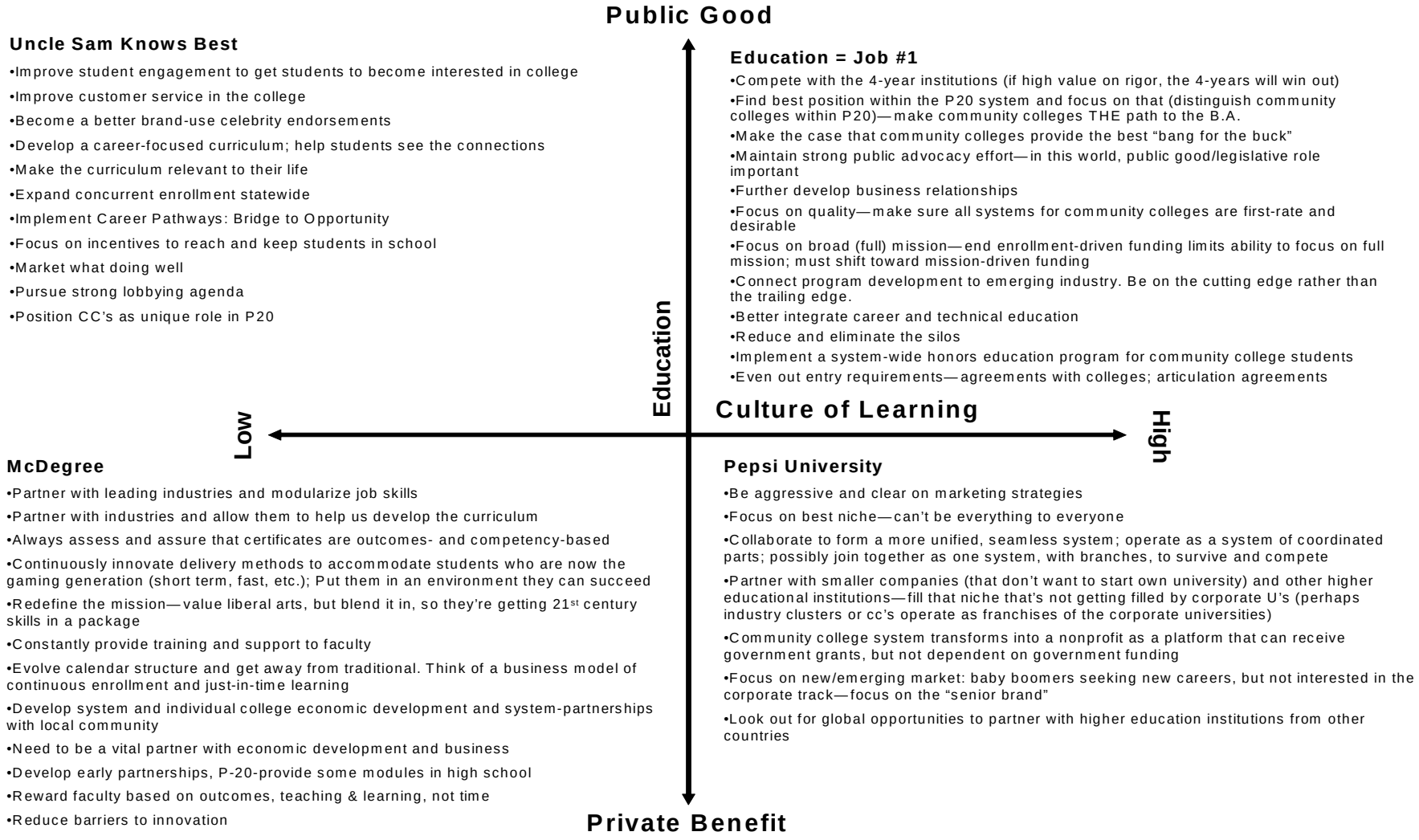

McDegree
Culture of Learning
Low
Education
S
• Best value proposition—we're cheaper
• Better ties with business and industry
• Flexibility…vis a vis four-year schools (we're more flexible than they are, but we still could be more flexible)
• We know how to operate with lean budgets
• High productivity at a low salary (which is not true in the private world)
• Motivation that motivates the staff to work
W
• Competition more flexible
• Attracting and retaining qualified faculty and staff
• Low funding
• Pace and quality of basic skills training; remediation adds a year to the length of time to graduation for a lot of students; we lose 40% of enrolled students…national data suggest it's correlated with the length of time that a person spends being remediated
• No incentive to meet two of the three missions; dependence upon FTE…other higher ed, 50% of funding comes from fee for service; that will drive businesses to meet training needs on their own
–Two different worlds… contracts drive money making…no incentive to collaborate and articulate to two-year programs.
• Current perception of community colleges are lower in the quality of their offerings; perception that community colleges don't get you a job
O
• Early college models, tied to jobs…if speed is an issue, high school students could have that piece of paper at age 17
• Take market share from proprietaries by emulating some of what they do, e.g., customer service orientation
• Supporting the notion of industry clusters and industry pathways
• Partnering with business and industries to support that
• Cutting edge delivery of curriculum—what can we do better; speed is a factor
• Students who are unenrolled who do not go to community college; there is a market (the under-employed); high percentage of people
–Community colleges offer McDegrees, too
T
• Mission under threat…
• If idealism is what recruits, retains faculty and it goes away, it's a threat; loss of dedicated faculty
• Laws on the books, and coming, that prevent state funding to go to students that might be children of illegal aliens…yet influx of migratory workers. Hands are tied for in-state funding
–Proprietary schools can respond to them
• TABOR and more TABOR-like laws…that hamstring state funding
• Increasing competition from businesses
• The four-year schools are turning themselves into community colleges to take those first 2 year students into their fold. Community colleges become irrelevant
–E.g., competition in the CTE market
Private Benefit


Culture of Learning
Pepsi University
High
Education
S
• Cc's more flexible and adaptable than universities
• Access to all
• System is a strength—some unification of lobbying to the legislature, trying to put together a single message in funding rather than one that is different for all
• Integration of technology to help students learn
• Improving collaboration among colleges
• Caring for all of our students
W
• Hard time keeping up with technology to be on the cutting edge
• Lack of merit scholarships
• Dependent on grant funding for a lot of things
• Losing talent to corporate America
• Public perception of cc's as being 2nd class
• Lack of support for the public system—some don't like moving forward as a collective
O
• Partnerships
• Career pathways
• Stop competing for funding; individual cc's find what you do well, find niche
• Improve collaboration so we have a better image with the public and can compete with corporate
• This is the battle against the 800 pound guerilla…The strength is as a system… is in being a strong system, you might have a chance to compete. Your status as a system is evolving and growing and moving and changing…
• Cc's could be like small niche…
• If the system were driven by market-driven values driving the system coming together…
• Collaboration with the private sector? Don't have to be in competition with Pepsi university; you partner with. You become one of the 800 pound guerillas
• Could set self up as a nonprofit or corporation…
T
• Increased tuition—not affordable
• Funding
• United we stand, divided we fall
• Negative media attention (role of media…; whole issue of branding and proactive marketing)
• Cc's don't do a good job with branding and marketing
Private Benefit

Appendix E: Strategic Options

Strategic Options:

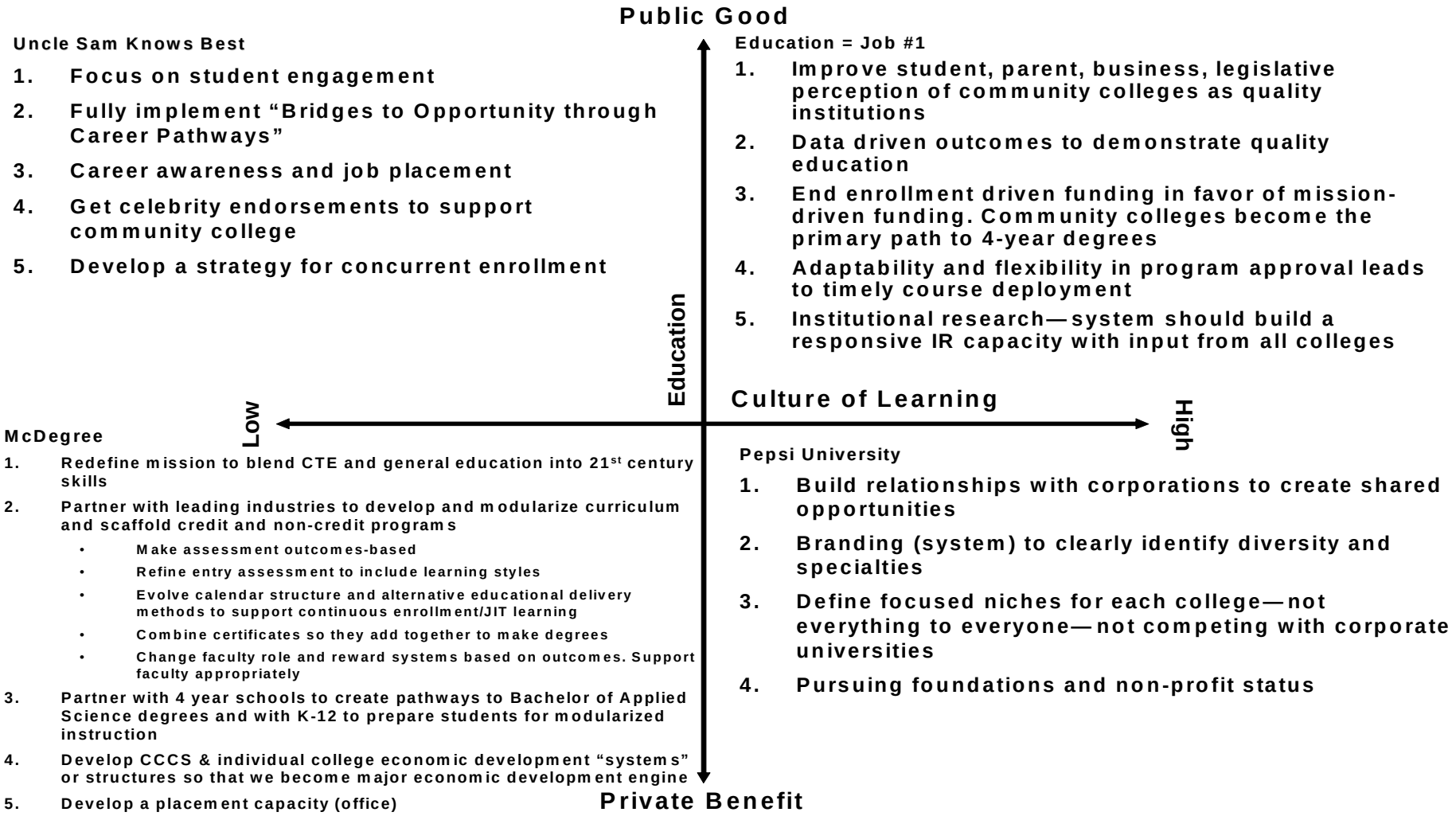
What strategies will increase the demand for CO community colleges in 2020?

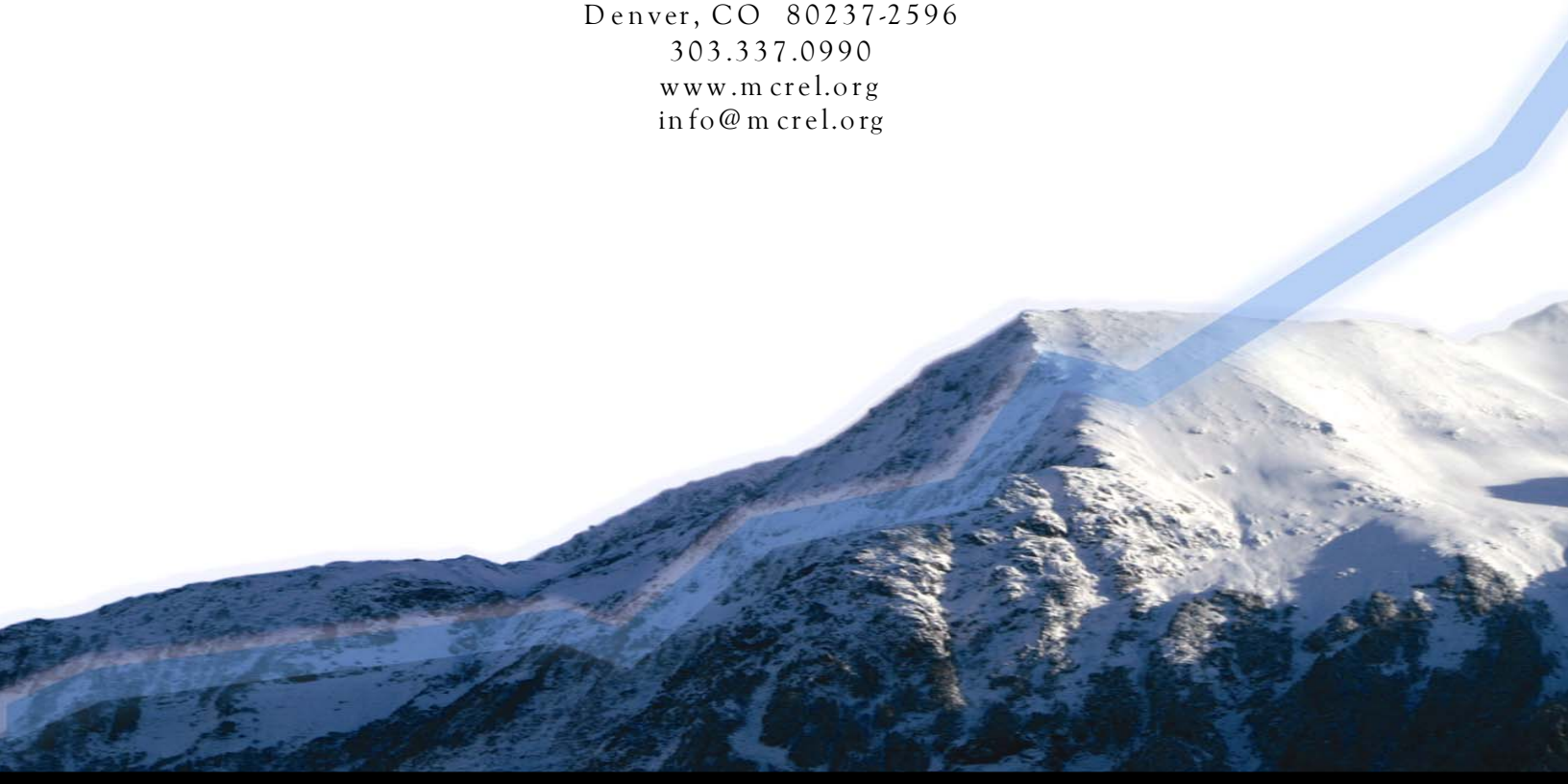


Appendix F: Action Steps Today to Prepare for Tomorrow

Taking Action Today to Prepare for Tomorrow

What will be the demand for CO community college services in 2020?



Mid-continent Research for Education and Learning

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