CHANGING HIGHER EDUCATION: ARIZONA STATE UNIVERSITY'S

"NEW AMERICAN UNIVERSITY" EXAMINED

by

JOHN W. MITCHELL

(Under the Direction of James C. Hearn)

ABSTRACT

External pressures such as limits on funds through reduced allocations from the state, community pressures to deliver positive impact to the local region, increased competition from for-profits, and changing demographics of the student body all seem to point to the idea that the traditional large, public research institution will need to make some fundamental changes to survive. While universities have adopted various technological and process changes over the past few decades, the question of whether these changes have been effective in preparing their organizations for the future is still unknown. Though several examples of institutions implementing changes can be found, Arizona State University has been much publicized for the broad scope of changes it has undertaken since Dr. Michael Crow became its President in 2002. ASU was examined to determine if effective change occurred as compared to its original intended direction and to see if other unintended changes (for good or bad) have occurred because of this effort. Many of these changes point to a different approach at large, public, research universities that could be helpful in sustaining their efforts. Other approaches and objectives ASU undertook in the adoption of the "New American University" are unique to its particular

situation, and only those institutions finding themselves in similar circumstance may find value in such approaches. Additionally, Dr. Michael Crow's leadership approach to effecting strong change is discussed as a model for potential use.

INDEX WORDS: Change, Higher Education, Arizona State University (ASU), New American University, Michael Crow, Entrepreneurial, Trans-Disciplinary, Social Embeddedness, Community, Phoenix, Multidisciplinary, Vision

CHANGING HIGHER EDUCATION: ARIZONA STATE UNIVERSITY'S

"NEW AMERICAN UNIVERSITY" EXAMINED

by

JOHN W. MITCHELL

Bachelors of Science, Brigham Young University, 1991

Masters of Business Administration, Pepperdine University, 2002

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in

Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

ATHENS, GEORGIA

2011

CHANGING HIGHER EDUCATION: ARIZONA STATE UNIVERSITY'S

"NEW AMERICAN UNIVERSITY" EXAMINED

by

JOHN W. MITCHELL

Major Professor:	James C. Hearn
Committee:	Sheila Slaughter
	Libby V. Morris

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
December 2011

DEDICATION

This research is dedicated to Professor J. Douglas Toma, who not only inspired those around him to dream big, but also was the reason for me choosing to enter this program. His positive demeanor and razor wit are deeply missed by all who knew him. I am grateful for his guidance in discovering and refining this dissertation topic as well as in other aspects of life.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

CONTEXT

      As industries mature, successful organizations find themselves either adapting through innovation, becoming more efficient, or suffering decline or even extinction. Studies in the business sector have provided many examples of how organizations must adapt or find themselves out of business. The influence of external factors like the economy, competition, technology advancements, etcetera have forced players in myriad industries to change and adapt or become displaced. Such external factors or influences abound in the higher education industry as well. With increased pressure from proportionally decreasing funds from state support (Hovey, 1999), pressures from new competition such as for-profit institutions and on-line learning (Wilson, 2010), as well as a shifted demographic from the traditional 18-24 year old resident student to the non-traditional working student who may be well over 25 (Clark K. , 2007), the education industry finds itself facing external pressures that will likely push it toward some sort of adaption. In most industries, increased competition, a change to the customer base, and an increased pressure on resources would result in a drastic change in the behavior of the organizations operating within that industry. However, there seem to be very few universities that are viewed as actively engaging in either significant or fundamental changes to the operating norm (Quora, 2010).

Organizations in practically every industry have used strategy development as a tool to provide a roadmap to better navigate, prepare for, and combat those change factors that would threaten their continued existence. According to Porter, the development of a successful strategy requires differentiation from your competitors (Porter, 1996). In order to achieve this differentiation, major industries have undergone systemic reform and change in the past hundred years. The transportation industry moved from wagons to jets; communications has moved from the telegraph to texting; healthcare has moved from hacksaws to lasers. Through all these changes, the education industry has remained remarkably constant at its core. The strategy developed in higher education often reads more as a tactical approach than a plan to differentiate clearly one organization from the rest. According to Forbes, data from the National Survey of Student Engagement has shown it is not as important which university an individual attends as what the individual does there (Jager-Hyman, 2009). If a differentiating strategy existed in a university, more importance on the institution attended would also exist.

PROBLEM

The traditional university persists and many argue that it will be difficult to change (Zemsky, 2009; Diamond, 2006). As many of the external factors that impact higher education (public funding, student demands, increased on-line information, community needs, competition from on-line education, outcome focus, etc.) are in heavy fluctuation at this time, the higher education industry must make more effective and fundamental changes to weather these change drivers. The university that does so successfully and early will gain the advantage of not only survival, but also increased opportunities to become the new leader in higher education.

Though a historical view of various industries illustrates that change is required to survive (Collins, 2001);broad change at large, publicly-funded research institutions cannot be achieved readily until a paradigm shift occurs (Diamond, 2006). The complications of dealing with years of history; the fragmented power structure between the academy, administration, and students; and the controls that some state systems exert on universities in their system all point to the difficulty of instituting top-down change across the entire university structure. The changes in the market and the decline is state support with the funding of higher education demand the question of whether change will be forced upon the institutions or if they will change of their own accord.

SIGNIFICANCE AND IMPLICATIONS

If higher education must make significant changes in order to survive it would be both instructive and useful to understand how other institutions have been effective in transforming their organizations to better cope with such changes. Arizona State University (ASU), a large, publicly funded research institution, has attempted to do in less than a decade what critics thought could not be done – to reinvent itself and the business model under which it operates. It is of major interest to this study to understand what changes were made at ASU, how effective these changes were, and which of these changes might be of benefit to other higher education institutions.

CHAPTER 2

LITERATURE REVIEW

The literature regarding the development of a new model for university operation is arguably either robust or, minimal, depending upon the area of study. A robust body of literature is demonstrated in the many articles on how to improve the university in terms of operations, teaching, testing, research, etc. However, these broad issues in higher education are not specifically addressed in this dissertation and can be reviewed by referring to the other works. In the minimal area, there is a much smaller body of work on the process of change as applied to the university as a whole. This review examines the tenets of change and its application to higher education as covered in the available literature. Additionally, this review examines similar literature from the business arena, as it is much more prevalent. The applicability of the business literature to higher education is also shown. One reason for including business literature is because there are opinions that Arizona State University's President, Dr. Michael Crow's approach to running the University is more business-like than traditionally done in the university setting. Having an understanding of the business thinking tools also provides insight to some of the methods employed at ASU. Finally, a review of some available models and frameworks beneficial to the categorizing of the data from this study is outlined and discussed for applicability to this research.

HIGHER EDUCATION PRESSURES TO CHANGE

Factors that have influenced change in higher education range from direct mandates to various market pressures. Many of these factors currently exist at universities. Previously unseen increases in areas such as potential substitute competitors are now commonplace. A brief description of some of these (direct mandates, funding pressures, competition, and community outcry) is provided in detail below to show how they can affect higher education.

Direct Mandates

Direct mandates could take the form of new requirements from accreditation boards. Without accreditation, a university simply would not be able to maintain it customers as well as an accredited institution. In 2009, Southeastern University lost its accreditation after 130 years and at the time of report the school officials did not expect to offer the subsequent fall term (de Vise, 2009). Obviously, changes in accreditation standards can bring about immediate change in an industry not known for being a change leader. Another type of direct mandate that warrants immediate change at a university is that of governmental regulations. If federal mandates are not implemented, it can lead to very costly sanctions and therefore changes to these mandates are usually immediate motivators for a change in behavior or process at a university. Beyond the sanctions that are possible, the increased cost to the university due to implementing these mandates is clear (Pawlenty, Rendell, & Scheppach, 2008) and the fact that new costs raising concerns indicates that change has or will occur based on the development of these new mandates.

<u>Funding pressures</u>

When organizations struggle for funding there is a clear incentive for change. With the economy operating sluggishly in recent years, the tax revenue at the state level is decreased. The US Census Bureau reported that state government tax collections decreased $67 billion in 2009 (U.S. Census Bureau, 2010). Therefore, one of the larger sources of funding for public higher education, the state government, is feeling its own pressures for change because of these decreases (Serban & Burke, 1998; Zusman, 2005). With higher education costs on the rise (Archibald & Feldman, 2010) and enrollment increasing (U.S. Department of Education, 2009), the schools find themselves in the midst of a financial struggle for funding. Other recent fiscal pressures include the diminishing of the endowment portfolios that many universities depended upon for various investments from the loss in the stock market and a decline in donor support (Lavelle, 2010). When the funds to support services required at a given university are eliminated, further pressure for change becomes inevitable.

<u>Competition</u>

Competition has increased for higher education in several forms. The most prevalent at this time is the increased success of for-profit institutions such as the University of Phoenix. Millions of students are starting to utilize this relatively new method of higher education (Pope, 2006). It provides an advantage to students looking for education without the long-term time commitment and other traditional offerings of a research institution (Wilson, 2010). Another form of competition in higher education is the competition for the best students. It seems clear that by having better students attend one's institution, the reputation and prestige of an institution can increase, which can in

turn allow it to grow and thrive by obtaining scarce resources such as grants from government, foundations, and corporations. Universities also compete to attract and employ better faculty. This competition likewise contributes to the financial pressures discussed above. When there are scarce resources and new competitors, this too can be an impetus for change. Finally, in addition to the for-profit schools there is increased competition from certificate programs. These programs offer specific training that is relevant to the employment being sought and usually take less time and cost less. The IT industry has various technology certifications and Texas has teaching certificates. Both are seen as necessary in those industries, and in some positions requisite over collegiate degrees.

<div align="center">Community Outcry</div>

As much of public institution's funding comes from taxes, the local community expects to receive benefits from the university. This pressure is often from the public servants in the area (Canfield-Davis & Jain, 2010), but can also be felt directly from the local residents as well as other stakeholders (Meyer & Bushney, 2008). If an improvement in the local community can be linked to a competency of the higher education institute, there is an expectation that the institution will take an active role in helping the community achieve that improvement. The more broad the expertise of an institution, the larger the number of opportunities a given institution has to directly contribute to the local community by helping to solve a given problem or issue. When these areas of need are publicized, the pressure to change or act differently is often felt acutely.

Changeability of Institutions of Higher Education

While the impetus for change seems to exist in the higher education space, the question has been asked: can institutions of higher education really change? (Diamond, 2006; Scott, 2003) What might it take to bring about such change? (Hill, 2010) How would such change be effective? (Zemsky, 2009; Kezar, 2001) In the education-focused media there have been several calls for change and discussions about how and what to change in universities. (Magner, 2009; Nair, 2003; Crazy, 2009) These authors contend, there is a need to change, but needed change largely does not occur. Opinions on how to facilitate change in higher education include bending to external pressures such as economic forces, philosophical resistance, and political challenges (Hill, 2010). When change moves beyond the discussion point and moves to implementation, it is important to understand what makes up effective or efficient change and what some of the barriers to change might be (Strebel, 1996). Insights on these ideas are shared below as focused on higher education.

Efficiency Views of Higher Education

Over the years, a number of articles have been written describing what the consequences of the pursuit of efficiency might be on higher education. In 1995, March argued that there were at least two issues with efficiency: short-term improvement and adaptiveness. He states that in an adaptive system it is difficult to maintain "experimentation and exploration in the face of all the pressures of efficiency and exploitation to eliminate them." (March, 1995, para. 17) Pursuing the practicality or usefulness of education is decried as well, "Any educational institution that can be justified is hardly an educational institution. It gains its character by the arbitrariness of

our commitment to it." (March, 1995, para. 30) There are problems with even the concept of effectiveness or efficiency as the ways to measure such are varied in approach and therefore in results (Cameron, 1978). On the other side of the efficiency issue is the desire for reform in terms of productivity where Johnstone (1998) shared the following:

> Indeed, policy makers are increasingly viewing the need for greater productivity – arguably the essence of financial and managerial reform – as demanding attention both to inputs, or costs, as well as to outputs, or learning and scholarly quality. According to the perspective of *learning productivity*, for example, the principal higher education productivity problems lie not so much with excessive costs, but with insufficient learning. (p. 6)

Karl Weick points out that institutions of higher education are loosely coupled organizations, and the efficiencies sought by outside parties (legislators and even the public-at-large) are more relevant to organizational structures that are tightly coupled. (Weick, 1976) Similarly, Clark (1976) points out:

> It is not possible even with modern computers and communication networks to stay on top of the requisite knowledge or to direct sensibly the myriad adaptations that others must make to local conditions and their own special contexts. The need increases everywhere for heterogeneity, flexibility, and dispersed control. (p. 34)

Clark later points out that as institutions "grow more complex, national systems generally find they must decentralize authority to individual institutions and somehow

create conditions that encourage the institutions to become pro-active, self-determining enterprises." (Clark B. R., 1996, p. 418)

As universities pursue efficiencies due to economic challenges, there will be difficult decisions weighing various risk with the rewards (Hearn, 2008) regarding the change or reduction of programs by universities, and there will be more direct intrusion in such decisions by state governing bodies as well (Kerr, 1980). Kerr continues to point out that there will be continued tension between the planned development of the institution and the market. (Kerr, 1980) Even though higher education is accomplishing many impressive things, the pressures (largely economic) are causing those in education to struggle in spite of these accomplishments. (Kerr, 1993)

Boulding's discussion on the productivity of the "schooling" industry claims that it is "notoriously unprogressive when it comes to productivity." (Boulding, 1972, p. 135) Boulding (1972) states:

> If there is in fact no way in which the productivity of the schooling industry can be increased, in the sense that there are simply no other possible techniques that would result in, let us say, more knowledge and skill acquired per real dollar of expenditure…. (p. 136)

However, he quickly qualifies this with "One would have to be a very great pessimist indeed, however, to believe that no further improvements in the productivity in schooling in terms of knowledge and skill per real dollar expenditure could possibly be achieved." (Boulding, 1972, p. 137) and that

> What I think one can assert is that if an increase in productivity were better rewarded than it is now, the probability of productivity increase

would certainly be greater, even though there is no way of knowing how much. The present system certainly militates against any increase in the productivity of education. (pp. 137-8)

Such statements lead to the conclusion that for increased productivity to occur, a system change would need to occur.

<center>Summary</center>

As there seem to be many arguments in favor of implementing change, it seems likely that would require a fundamental change to the institutions of higher education function. There is considerable debate as to the benefit of changing the system to one that is more efficient, but the pressures for change continue to mount in the current environment. If these pressures continue to rise, it is reasonable to expect that universities using the current system either will adapt new methodologies or will find it replaced by those who do. If change is required or at least desired, and change can be facilitated and managed well, what institutions exemplify vast and sweeping change in the industry that has at least been stoic? Arizona State University claims it is taking a different course than the traditional university and turning its university into the "New American University." (Arizona State University, 2010) Therefore, it might provide an example of how change can affect a large, public, research university.

ASU BACKGROUND

Arizona State University (ASU) has been highlighted in the press both for the positive aspect of doing something unique and forward thinking (Arizona State University, 2011; Saletan, 2011) as well as decried for the various shortcomings of its approach (Volz, 2010; Lewin, 2009). This attention that ASU has received for its claim

that it has been doing something new for nearly a decade make it an ideal candidate for the study of change at a university. Not only is ASU large and public, but it is also a comprehensive research institution. As the context in which the university exists can also affect the changes achieved, background on the institution follows.

ASU: Brief History

Located in the metro Phoenix, Arizona area, it is the main university serving the region. Arizona State University is currently the largest university in the United States market (Doughroller, 2010). While it is the largest university, Maricopa Community College also located in the same area has three times the number of students that ASU does and serves as the open access institution in the area. Arizona State University was organized in 1885 as the Tempe Normal School. In 1925, as the institution expanded, the name changed to Tempe State Teacher's College; in 1928 to Arizona State Teacher's College; and in 1945 to Arizona State College. In 1958, the college was performing all the functions of a university and was renamed to Arizona State University (ASU Alumni Association, 2011). ASU is comprised of four campuses: Tempe, West Campus, Polytechnic, and Downtown. Historically, these were largely independently running campuses all operating under the ASU brand. The Tempe campus is the largest campus with around 60,000 students attending courses there. The total student body population is over 70,000 students, both undergraduate and graduate. ASU belongs to the Arizona State System and is governed by the Arizona Board of Regents (ABOR). In the traditional Carnegie ratings, ASU was a Research II until 1994 when it became a Research I. In spite of its size and being a Research I, it has no medical school. In July of 2002, Dr. Michael Crow, formerly the Executive Vice Provost at Columbia University,

became the 16th President of Arizona State University. In November of that year, Dr. Crow introduced the concept of the "New American University" in his inaugural address (Crow, 2002).

<div align="center">New American University</div>

The "New American University" is a "new model for the American research university, creating an institution that is committed to excellence, access, and impact" (Arizona State University, 2010, para. 1). The vision of the "New American University" includes elements which are oft sought after by many research universities such as new buildings, top faculty, and new students; but differently, ASU's "New American University" is trying to redefine and combine disciplines and take a greater role in society, specifically its role in Arizona. (Arizona State University, 2010) According to the "New American University" website, this new model strives to create a new environment for learning that will enhance trans-disciplinary collaboration between fields of study. It also "promotes academic partnerships with the community, industry and government" (Arizona State University, 2010, para. 2). In order to do this, it has increased its facilities for research, learning, and residency.

In addition to creating a new operating environment for the "New American University," ASU claims to have transformed its community by hiring new faculty across the disciplines, providing additional access to students for education, and collaborating with their local community to embed the university in its surroundings. One of the key differences of the "New American University" is its focus on being a part of a community. While many universities, of course, boldly state their commitment to the community, the difference at ASU is how embedded the realization of this commitment is

in the culture, mission, and actions of the institution. As a public institution, ASU states that it should work with the community on the problems of the community, and every college is expected to demonstrate exactly how it does so. One of those community problems is education in the Phoenix area. ASU is working with others to improve this situation by providing teachers and providing access for more students to go to a university. (Arizona State University, 2010)

The university also makes the bold statement that it "has changed the objectives for the university as a whole and for individuals within the institution." (Arizona State University, 2010) The institution has made it a priority to focus on the "big problems" of the world such as sustainability. The recognition that the complexity of these issues requires a multifaceted approach is one reason why ASU claims it is well suited to challenge these problems. ASU, as a large institution with its multidisciplinary colleges, states it has the right tools to approach such non-linear problems.   As an institution ASU is undertaking eight "Design Aspirations" to achieve its new objective of excellence, access and impact, which will allow the organization to better decide what to do and how to approach various decisions at all levels.

<div align="center">ASU Design Aspirations</div>

The New American University's Design Aspirations are as follows:

1. **Leverage Our Place**: *ASU embraces its cultural, socioeconomic and physical setting.* "At ASU we leverage our place by allowing our environment to advance our research, by striving to design sustainable urban development and by learning from our communities. Local knowledge, local issues and local solutions inform student learning and shape faculty research."

2. **Transform Society**: *ASU catalyzes social change by being connected to social needs.* "At ASU we leverage knowledge, talent and resources for social change. Our research positively impacts society. And we encourage new models for higher education through our vision for a New American University."

3. **Value Entrepreneurship**: *ASU uses its knowledge and encourages innovation.* "ASU inspires action. We harness knowledge for innovation and create purposeful ventures. We are entrepreneurial as individuals and as an institution."

4. **Conduct Use-Inspired Research**: *ASU research has purpose and impact.* "ASU addresses the global challenges before us. Knowledge can inform decision-making and have positive societal impact while also considering the social implications of research."

5. **Enable Student Success**: *ASU is committed to the success of each unique student.* "ASU is focused on outcome-determined excellence. ASU students have broad knowledge and perspective, build their own communities and are provided with a clear path to graduation."

6. **Fuse Intellectual Disciplines**: *ASU creates knowledge by transcending academic disciplines.* "At ASU we transcend boundaries. Our problem-oriented approach encourages dynamic intellectual interaction and enables students to learn from the world around them."

7. **Be Socially Embedded**: *ASU connects with communities through mutually beneficial partnerships.* "ASU strengthens communities by contributing to community dialogue and responding to communities' needs. We provide an

education that's inclusive rather than exclusive. Our students engage in the world around them."

8. **Engage Globally**: *ASU engages with people and issues locally, nationally, and internationally.* "ASU is scaling local solutions for global impact, fostering local and international student experiences, and building diverse partnerships. ASU is forging a new role for higher education in the world."

These Design Aspirations, as taken from the "New American University" website, are what guide the transformation of ASU into the New American University. (Arizona State University, 2010)

CHANGE RESEARCH AND APPLICABILITY

As Benjamin Disraeli stated, "In a progressive country change is constant; …change… is inevitable (Buckle, 1929, p. 287)." Parallels in the higher education industry can be found by better understanding how change affects industries and organizations. We also will learn where in the change cycle higher education may be. We will approach this by reviewing how changes in industries work, the factors that influence change, changes within higher education, and the changeability of higher education itself.

Industry Changes

The life sciences follow a cyclical pattern used not only to explain product cycles, but industry cycles as well. (Cengage, 2002) This cycle consists of four stages: introduction or innovation, growth, maturity, and decline. The introduction stage is when

Figure 1: Growth in U.S. Higher Education
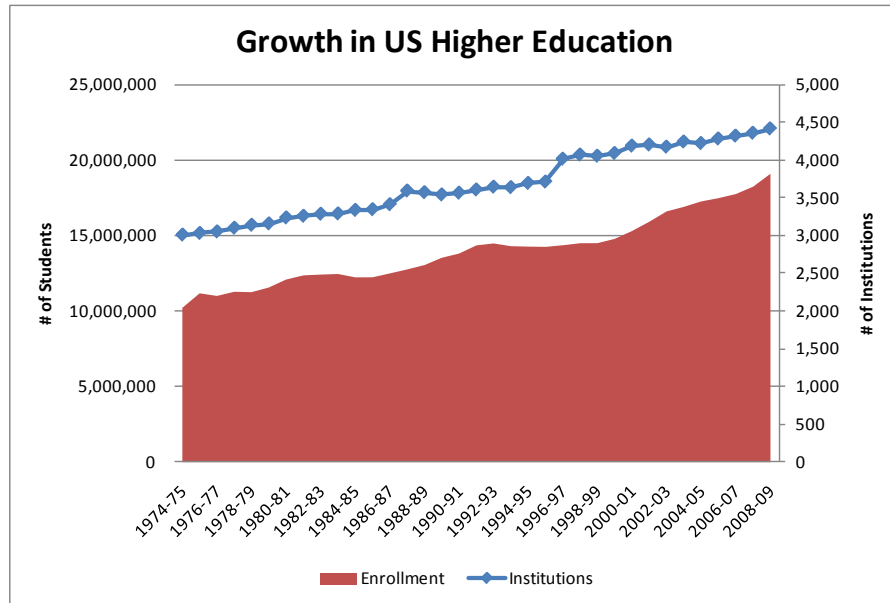
Source: US Department of Education, 2010

the early idea or product is delivered. In higher education in America, this likely took place during the development of the "American University" at Johns Hopkins during the late 19th century through the adoption of German university ideals and graduate programs (Thelin, 2004). After innovation or introduction, the next stage is that of growth. The growth of the modern American university happened rapidly during the 1900's and continues to grow (see Figure 1) through the present (U.S. Department of Education, 2010). The growth stage of an industry's life cycle is characterized by large capital investments and attempts at differentiation (Cengage, 2002). The product is refined during this stage. The refining of the higher education industry happens as the model becomes more stabilized. As all of the "products" of the university begin to have the majority of their components in common (physical buildings, residency, sports teams, and the social experience to name a few), all institutions begin to become less unique and

more refined in each of these areas. While some growth is still occurring in higher education, the industry that has existed in the current undergraduate and postgraduate form is likely at the maturity level after over 100 years of development. Maturity of an industry is approached when competition will be focused on quality and differentiation in an attempt to gain the scarce customer. In the case of higher education, this customer might be viewed as the excellent or diverse student. Beyond competing for the scarce student, the universities compete for government funding whether at the state level or federal. The final life cycle stage is that of decline. "Declines are almost inevitable in an industry" (Cengage, 2002, para. 12). In this final stage, the demand for a product or service decreases. Based on this industry life cycle model, it seems clear either the higher education industry is at the tail end of the growth stage or more likely firmly in the maturity stage as demand for college degrees has not decreased.

Figure 2: The Industry Life Cycle

Life Cycle: Four Basic Stages

	Introduction	Growth	Maturity	Decline
Audience	Early Adopters	Mainstream	Late Adopters	Laggards
Market	Small	Growing	Large	Contracting
Sales	Low	High	Flattening	Moderate
Competition	Low	Moderate	High	Moderate
Business Focus	Awareness	Market Share	Customer Retention	Transition
Design Focus	Tuning	Scaling	Support	Transition

(Y-axis: Product Sales, + to −)

Re-drawn from the book "Universal Principles of Design" © 2003 Rockport Publishers   idea-sandbox.com

When an industry finds itself in the maturity stage of the life cycle, there are actions that can be taken to prolong the life cycle. These actions have included things such as management efficiency, productivity improvements, technology advancements, tightening of the supply chain, and expansion into new markets (Cengage, 2002). When we look for these actions in higher education, we see that while much of the higher education industry has been trying to find efficiency gains few would argue that management efficiency has been one of the strongest areas of success as the administration segment of the university continues to grow in most institutions (Greene, 2010). Productivity improvements have been undertaken via technology advancements.

Some technology advancements have been adopted (Murray, 2008), but again the extent of adoption when compared with other industries or the speed with which technologies are developed and used by the university student would lead one to believe at a minimum more work could be done in this area. Tightening of the supply chain has occurred in the for-profits as they have removed some of the traditional pieces of the supply chain and have moved to a direct connection from instructor to student with little in between (even removing the buildings and the need to come to a campus to learn). Expansion into new markets with executive programs and international partnering has been explored as well as that of on-line learning at many institutions, which demonstrates the attempts to expand into new markets. The higher education industry is actively pursuing many of the actions that would allow it successfully face the challenges of being in the maturity phase of the life cycle.

<p style="text-align:center">Applicability of Business Principles to Higher Education</p>

Business thinking at institutions of higher education is appropriate especially when being applied to the processes and systems of higher education (Rodgers, 2005). The utilization of business practices is not just a recent phenomenon. After World War II, the rapid growth of higher education (Lazerson, 1998) brought about the heavy adoption of business tools and techniques (Birnbaum, 2000). Birnbaum describes seven of these methods or fads (Planning Programming Budgeting System (PPBS), Management by Objectives (MBO), Zero-Based Budgeting, Strategic Planning, Benchmarking, Total Quality Management (TQM), and Business Process Reengineering) and shares that the adoption of such is often due to the "culture of crisis." When things are viewed as in trouble, the most in favor technique or buzz word is adopted to rescue

the institution from the latest crisis. From the above, continual change can help to strengthen and reinforce a culture of crisis. There are not just seven management techniques that have been utilized in higher education but a seemingly unending source of business techniques have been examined for potential integration into the higher education industry. The table below from Hearn's (1988) work shows that there are various differences between what he terms the ideal context and higher education's organizational context. See Table 1 below.

Table 1: Economies of Strategy in the Ideal-type and Higher Education Contexts

	IDEAL-TYPE ORGANIZATIONAL CONTEXT	THE ORGANIZATIONAL CONTEXT OF HIGHER EDUCATIONAL INSTITUTIONS
EXTERNAL ENVIRONMENT	An enterprise charge: freedom to diversify portfolios, cut old products, initiate new products, "position" products in the market place Norms of competition Geographic mobility Mix of developing and mature product lines, threatened and unthreatened niches A clearly bounded and relatively "knowable" external environment	A societal charge: limits on freedom to diversify, cut, initiate, and "position" Mixed norms of cooperation and competition Geographic immobility Mix of mature and declining product lines, with multiple threatened niches A set of penetrating and vaguely defined external environments.
REVENUE SOURCES	Passive resource providers and customers	Active resource providers, clients, and constituents
STRUCTURAL INTEGRATION	Goal clarity and consensus Leadership discretion Private control	Goal ambiguity and conflict Shared governance Mixed public and/or private control
LOCUS OF AUTHORITY	Hierarchical	Diffuse
PRICING DECISIONS	Price discretion, subject to market conditions	Limited price discretion, subject to many constraints
ECONOMICS OF INNOVATION AND CHANGE	Material incentives Slack resources	Mixed incentives Minimal organizational slack
PRODUCTION: HUMAN RESOURCES	Flexible human capital	Inflexible human capital
PRODUCTION: TECHNOLOGY	Discrete functions Tight coupling of production elements Economies of scale Understood technology	Integrated functions Loose coupling of production elements Limited economies of scale Poorly understood technology
PRODUCTION: PERFORMANCE EVALUATION	Strong quality control, due to tangibility of products Clear returns of investment, often immediate	Weak quality control, due to intangibility of services Unclear returns on investment, often over longer term

Source: Hearn, J. C. (1988). Strategy and Resources: Economic Issues in Strategic Planning and Managment in Higher Education.

Even though the table above is in need of a few updates as it 25 years old, it is

still instructive to see the differences in context between what Hearn terms the ideal-type

and higher education. It is clear that the use of business techniques in higher education is nothing new and has met with varying degrees of success. In order to get closer to the ideal-type described above for both businesses and higher education and avoid the fads that Birnbaum decries, it is critical that a data driven approach be used. While this may be logical, there is ample evidence that using data to make decisions is not necessarily the regular practiced in any industry (Pfeffer & Sutton, 2006).

<div align="center">Strategy and Innovation</div>

When striving to address the various challenges the universities face, utilizing the strategic planning tool, which Birnbaum referred to above, is still in force. The purpose of developing a strategy is to decide what to do with a constrained set of resources. We learn from the "Father of Strategy," Michael Porter that "Strategy is the creation of a unique and valuable position, involving a different set of activities" (Porter, 1996, p. 68). If a university is not creating a unique position that involves different activities, then in essence the best they are doing is creating tactics, not strategy.

Porter's review of strategy includes developing what has come to be known as the "Porter's Five Forces" model (Porter, 1979). As can be seen from Figure 3 below the forces consist of:

- Existing competitive rivalry between suppliers
- Threat of new market entrants
- Bargaining power of buyers
- Power of suppliers
- Threat of substitute products (including technology change)

Figure 3: Porter's Five Forces Illustrated

When these forces exist and are understood, they can help an organization to better position itself to be successful in a particular industry. Walking through each of these forces, we understand that there is indeed *Competitive Rivalry* within the higher education industry as universities compete for the scarce resources mentioned above (top students, government grants, and best researchers). *Substitutes* (including technology) can be seen as on-line institutions arise and certifications and licenses become viable substitutes for some degrees. *New Entrants* are the for-profits and increasingly the community colleges. *Customer Bargaining* exists as students and parents combine to demand a particular good for the price paid. Finally, *Suppliers' Power* is likely the weakest force of the five in higher education, as the teachers find themselves increasingly commoditized by the proliferation of adjunct professors. What appears clear is that higher education is subject to the five forces and in turn would be wise, according to

Porter, to practice good differentiating strategy in order to be successful in the face of competition.

As industries (at least other industries) tend to change over time, it might behoove leadership to understand where their particular industry might be headed in the next decade or two and strive to develop and offer products and services that will meet the potential need while funding such with current success (Hamel & Parhalad, 1994). Those organizations that have not been able to look past their own history to the externally changing world have often fallen captive to what Surowiecki calls the "internal constituency" problem (Surowiecki, 2010). The organization is full of individuals who cannot believe the days, which brought them success, are actually over. When external forces align against such organizations the results can be quick and fatal as the dramatic and swift collapse of Blockbuster, Circuit City, and CompUSA serve to illustrate. These large formidable organizations found themselves out of business when a shift occurred in their market and product offerings (Surowiecki, 2010). This same scenario could potentially exist for higher education because of the many changes and influences listed above.

We learn from Clayton Christensen that disruptive innovations start providing inferior products to the masses and therefore are not deemed as credible threats (Christensen, 2003). If they were considered threats, the larger competitors' better reputation and usually formidable resources would likely overcome them. However, these disruptors (like for-profit universities and certificate programs) eventually get better and not only take the unwanted resources (difficult to handle students who are not full-time or students who are not interested in a full degree), they eventually improve their

product or service offerings to the point that they are taking the cherished resources (top full-time students) of their competitors (traditional universities). Christensen shares that to cope with change one must create new capabilities. He suggests that this be done through either the acquisition of an entity that does things differently, changing the processes and values of the current organization, or by breaking off a new part of the existing organization to separately develop the new processes and values required to solve the new circumstance facing the organization. Christensen (2001) states:

> In most of these instances, seeing the innovations coming at them hasn't been the problem. The organizations just didn't have the capability to react to what their employees and leaders say, in a way that enabled them to keep pace with required changes. (p. 27)

Innovation adoption in the higher education industry is slow. Murray describes the slowness of innovation adoption at universities. In that study, the average time for university adoption of 30 specific innovations studied (time from the first university adopts until half of the 200 studied universities had adopted) was 25 years. (Murray, 2008) If this were the speed of innovation in higher education, then organizations that are more agile might often claim a strategic advantage over traditional higher education institutions.

<u>Entrepreneurialism and Capitalism in the University</u>

The concept of being entrepreneurial is not new to higher education, though the "internal constituency" may view it with disdain. Many have written and observed the shift toward a more market driven focus at the university (Menand, 2010; Bok, 2003;

Slaughter & Leslie, 1997; Clark B. , 2001; Slaughter & Rhoades, 2004). Clark (2001)

shares the following ideas:

> In the last chapter of my book, I posited a growing imbalance between
> demands upon universities and their capacity to respond if they remain in
> their traditional form. The demand-response imbalance, of course, is not
> characteristic of all universities, but it does appear, in societies around the
> world, especially in public universities supported by a national or regional
> ministry of education or education and science. (p. 10)

Clark continues to provide five broad categories to begin a discussion on how to achieve

an "entrepreneurial response" for universities, which desire to be competitive in the

global landscape. The categories shared by Clark are a diversified funding base;

strengthening the steering core; the reinvention of university collegiality; the reinvention

of university autonomy; and, the entrepreneurial reinvention of university achievement.

Clark (2001) concludes by stating that an entrepreneurial university

> As it seeks opportunities beyond means currently available, it brings in
> new forms of knowledge, new types of students, new labor force
> connections, new problem-solving skills for government and the economy.
> At the same time, the entrepreneurial university maintains continuity with
> the past and present; it preserves and updates old fields of study at the core
> of the university heritage. Most of all, the entrepreneurial university
> provides new foundations for the rebuilding of internal collegiality and
> external autonomy. (p. 23)

Clearly, an entrepreneurial approach can fit within the forward-looking university.

In addition to an entrepreneurial approach, the concept of academic capitalism has also been growing in the higher education landscape. As pointed out by Slaughter and Rhodes, the university has been engaging in various capitalistic activities in order to survive in the "new economy" through strong interactions with economic players (Slaughter & Rhoades, 2004). Indeed capitalism according to Slaughter and Rhodes seems to have entered into nearly every aspect of the university. Additionally, researchers raise the concern of the knowledge regime replacing the idea of knowledge as a public good and that market forces are not necessarily making access to higher education (Zusman, 2005) more prevalent across all students (Slaughter & Rhoades, 2004). While some extreme concerns have been expressed regarding the commercialization of higher education, Bok (2003) expressed the following:

> Most critics do not paint the current situation in quite such bleak colors. But many are afraid that commercially oriented activities will come to overshadow other intellectual values and that university programs will be judged primarily by the money they bring in and not by their intrinsic intellectual quality. (p. 16)

It seems clear that a balance is necessary as fiscal support (revenue) is required to run the institution, but additionally the mission must not be forgotten (Weisbrod, Asch, & Ballou, 2008).

Summary

There are many applicable business techniques and methods that the higher education industry could utilize and in many cases, this might be accomplished quite simply as the experts who are studying these techniques are housed within the

universities themselves as faculty. The picture of potential upheaval has been painted and the brush strokes are vivid. The question is really just a matter of when, not if, the requirement for sweeping change in higher education will come. Caution is advised as the value proposition could clearly be lost as the universities turn to more capitalistic and entrepreneurial ways of thinking. As there are literally thousands of universities, it seems possible that at least one of them has found a way to reinvent itself, look closer at the future, and prepare for what they believe is coming. Arizona State University seems at least to claim that it is doing just that, so it is a good candidate for closer examination.

FRAMEWORKS

There are several frameworks that might be utilized based on the background explored above (Bolman & Deal, 2008; Kotter, 1995; Toma, 2010; Imparato & Harari, 1996). A few of these will be briefly described in order to develop awareness as the research takes place. As patterns emerge that would support one or more of the below frameworks more evaluation of its applicability will be discussed. It is also possible that none of these frameworks will apply to the research as it unfolds and a description will have to suffice or a new framework developed to describe what is discovered will be provided.

Four Frames

Bolman and Deal have developed a framework for examining and pursuing organizational change that is referred to as the Four Frames (Bolman & Deal, 2008). These four frames are illustrated below and are accompanied by some key words to serve as reminders for what each frame represents in Figure 4 below.

Figure 4: Bolman and Deal's Four Frames

Recognizes major constituencies

Coalition

Political Framework

Human Resource Framework

Heart of the organization is people

Empowerment

Servant

Problem based

Processes

Analysis

Design

Structural Framework

Symbolic Framework

Inspiration

Prophet

Visions

Bolman and Deal postulate that organizations can be successful by showing some imagination and "reframing" how their organizations are run and perceived. The frames through which to examine the organization include the Structural frame (goals, specialized roles, formal relationships, division of labor, rules and procedures) which proclaims that problems arise when the structure does not fit the situation. The next frame is the Human Resource frame (viewing people as extended family, understanding their feelings, prejudices, skills, and limitations) which says one needs to tailor the organization to the people who are in it. The Political frame (arenas, contests, jungles, competing for limited resources, conflict, bargaining, etc.) states that problems occur when the power is in the wrong place. The last frame is the Symbolic frame (culture, tribes, stories, ceremonies, heroes, and myths) which sees the actors in the organization as the influencers. The integration of all four frames requires broad thinking across all four simultaneously. (Bolman & Deal, 2008)

Change Stages

Another framework that may prove useful, as change seems to be such a prevalent theme in this discussion is Kotter's "Eight Steps to Transforming Your Organization." (Kotter, 1995) In reviewing aspects of ASU that have exhibited change, it may be instructive to see if some or all of the eight steps were used to bring about change. This may be especially true as much of the direction that ASU is taking is largely attributed to Dr. Michael Crow as its visionary and the force behind seeing it happen. A short description of each of these stages is as follows and is taken directly from Kotter's original Harvard Business Review article (Kotter, 1995):

1. **Establish a Sense of Urgency**: Examining market and competitive realities; Identifying and discussing crises, potential crises, or major opportunities.

2. **Forming a Powerful Guiding Coalition**: Assembling a group with enough power to lead the change effort; Encouraging the group to work together as a team.

3. **Creating a Vision**: Creating a vision to help direct the change effort; developing strategies for achieving that vision.

4. **Communicating the Vision**: Using every vehicle possible to communicate the new vision and strategies; Teaching new behaviors by the example of the guiding coalition.

5. **Empowering Others to Act on the Vision**: Getting rid of obstacles to change; Changing systems or structures that seriously undermine the

vision; Encouraging risk taking and nontraditional ideas, activities, and actions.

6. **Planning for and Creating Short-Term Wins**: Planning for visible performance improvements; Creating those improvements; Recognizing and rewarding employees involved in the improvements.

7. **Consolidating Improvements and Producing Still More Change**: Using increased credibility to change systems, structures, and policies that don't fit the vision; Hiring, promoting, and developing employees who can implement the vision; reinvigorating the process with new projects, themes, and change agents.

8. **Institutionalizing New Approaches**: Articulating the connections between the new behaviors and corporate success; developing the means to ensure leadership development and succession.

<p align="center">Jumping the Curve</p>

The last framework we will summarize is more a frame of mind than a framework but instructive in surviving change. Imparato and Harari argue that to be successful in an ever-changing market one must be able to "jump the curve (Imparato & Harari, 1996)." The curve which is referred to is the "S" curve of innovation, growth, maturity, and decline discussed above. If an organization is able to move to its next opportunity more quickly (as implied by Clayton Christensen's work above) that organization will be at a significant advantage in the times to come. There are four principles required to "jump the curve:"

1.   Looking one customer ahead

2.   Build software (deliverables) around the customer

3.   Reward and ensure satisfaction of those who live the values and ideals of the organization

4.   Make the customers an unconditional guarantee of satisfaction

In applying such to higher education, the idea of the customer is readily attached to the student, but can also be expanded to include governments and communities that are paying taxes, or in foreseeing the coming big research development and building expertise around such.   Expanding the customer definition to include all revenue providing groups in higher education would change many of the activities of higher education institutions. (Imparato & Harari, 1996) Rewarding or ensuring the satisfaction of the believers in the organization, might be accomplished by providing reinforcing incentives into the university system. As far as an unconditional guarantee, the idea of doing such at a university might be difficult as the outcome is dependent upon the individual's effort, not the product offered.

CHAPTER 3

RESEARCH DESIGN

RESEARCH QUESTIONS AND PURPOSE

This dissertation attempted to understand and answer the following questions about what occurred at ASU as a case study and potentially provide a guide to other institutions that may find they too are required to adapt for their survival or to further their success in this changing industry. This dissertation attempted to understand:

1. Since Michael Crow became President in 2002, what changes were made at ASU to try to develop a new model for the university?

    a. What were the intended changes? (Why were these changes desired?)

    b. Were there any unintended changes?

2. Given the changes that have occurred, what have been the impacts on the institution?

    a. What benefits, if any, have been gained for the institution?

    b. What, if anything, has been lost?

In order to answer these questions, this study interviewed key individuals at ASU who have been intimately involved in the changes and may have a perspective from both before and after the changes. These players largely consisted of administrators and key faculty at ASU. A wider sample of perspectives from instructors, community members, and students was sought for a broader sense of opinion on campus and in the community.

Trying to understand all of the changes that have occurred at any university over nearly a decade of time is beyond the scope of this research. A focus on the changes attempted and espoused to in becoming the "New American University" will be the focus. As the key to the New American University is found in living up to the eight Design Aspirations, we have examined these and focused specifically on three Design Aspirations of particular interest: Fuse Intellectual Disciplines, Be Social Embedded, and Value Entrepreneurship. While overarching changes were cited and the other five Design Aspirations were addressed, primary focus was on the three Design Aspirations and Dr. Crow's leadership in bringing about fundamental change at ASU.

RESEARCH STRATEGY – CASE STUDY METHODOLOGY

A qualitative approach was used to understand what changes were intended at ASU and whether effective progress in pursuing these changes has occurred as well as the examination of the resultant unintended consequences. As discussed below, to demonstrate a stronger case for applicability to a broader audience, quantitative analysis for validation of any discoveries was provided where possible. As shown in the literature review, it appears most institutions have not instituted comprehensive change to their institutions and indeed many fight against such sweeping change ideas. Because of this, reviewing a large sample of institutions undertaking such change presents some difficulty. As we have one university (Arizona State University) that has claimed to achieve broad sweeping adjustments to its institution, it is logical to examine this institution to understand exactly what changes have occurred and the impacts of such at that institution. As Arizona State University is a large, public, research institution of

higher education that is over 100 years old, it represents the traditional research university and examination of such will be instructive as many institutions have a similar structure. As a large institution, the changes achieved, which proved to be beneficial, may provide a roadmap of how other institutions might follow a similar course. (If smaller institution had claimed such sweeping changes, the application of such to larger institutions may be suspect.)

A quantitative research methodology is particularly useful when trying to show broad application of research (Yin, 2008; Creswell, 2009). Dr. Crow has suggested that the application of the changes undertaken by Arizona State University might serve as a useful roadmap for those in the higher education industry who desire to change (Stripling, 2010). This study employed some quantitative techniques to lend more robustness to any broad applicability claims made in the conclusion. Collecting new and deep data across the higher education industry was beyond the scope of this research, but data more readily available, which had already undergone the rigors of cleaning, was utilized.

In general, various themes discovered in the qualitative research were explored for potential additions of quantitative analysis of relevant data to allow broader application. For example, a claim made in interviews about the quality of students increasing at ASU was reviewed for credibility with external sources such as retention rates, job placement, and incoming test scores. Another quantitative aspect that lent insight to this research was the examination of various financial aspects of the institution over the period before and after the changes that have been undertaken. Comparing this with similar institutions helped to illustrate whether such trends were inherent to the industry or if Arizona State exhibited any outlier behavior of note. Specific assertions

made regarding the applicability of some discovery drove the pursuit of evidences that would support such from a quantitative view to challenge or bolster the claims with empirical data.

LOCATION SELECTION – ARIZONA STATE UNIVERSITY

Few large research institutions have claimed drastic changes to the basic university model. Arizona State University has publically claimed that it is in the process of such sweeping changes and has moved a good way forward on that path. New York University and Olin College have also been cited as making similar innovative strides to the future (Theil, 2008). Olin College is not large or viewed as a research institution and NYU is private not public. Being both a large and public institution presents challenges that smaller and private institutions do not have to face. As ASU has the complications of being large, being publically funded, being a research institution, and is often cited as making significant changes, it was the logical selection as having the potential for providing insight that may be widely applicable. The author hoped to learn whether the "New American University" (Arizona State University, 2010) that has been created at ASU could work as model for the benefit of other higher education institutions. With the pressures of economic instability, community outcry, corporate dissatisfaction with graduates, and increased competition from professional certifications and on-line universities, universities are facing a "brave new world" that may leave them behind. By providing tools and examples to look to in times of change, universities might have a clearer map to the future. We hoped to learn if there are guideposts to follow from ASU's example of change management.

DATA COLLECTION METHODS

The primary methodology used for gathering data was interviews. The individuals interviewed were the influencers on campus as identified by previous or current positions held and recommendations from others on campus and in the community. These were to include the President (Michael Crow), provost(s), faculty senate members, and chairs, administration personnel (academic affairs; admissions; development; and, past holders of such positions). Additionally, opinions of members of the community and government were pursued, as discoveries about impacts were uncovered. Interview subjects were initially selected based upon their position. In addition to an interview with President Crow, those holding the position of Faculty Senate President, both recently and when Dr. Crow came to ASU, were identified. In addition, heads of impacted departments who were still with the university and would have a long-term perspective were identified. Additionally, as focus was placed on three of the Design Aspirations, individuals who were in departments or areas that were initial targets of these activities and who had been part of the university for some time were identified. As the Office of University Initiatives has the implementation role for several of these Design Aspirations staff members from this organization were also interviewed as well as its Director. Lastly, mention of persons or organizations occurred during interviews, additional insight was sought from those mentioned. Access to such individuals was expected to be available, as the President has engaged in a public relations campaign to share with the world what has been done. The Office of the President at ASU granted permission to pursue this study when requested. Additionally, some snowball techniques (who else should be interviewed that might have a different

opinion) was utilized to ensure that a variety of views was represented. Questioning via interviews continued until no significant new insights came and saturation occurred. Past influencers at Arizona State were also sought out to provide a before and after view of the changes (previous president or administration or faculty senate no longer at the university).

As these changes made at Arizona State University have been very public, confidentiality was not an issue. However, each interview candidate received their transcripts so they could review them for correctness. Use of a semi-structured open-ended set of questions encouraged a flow of conversation from the interviewees. A pilot inquiry with known persons on the ASU campus provided testing of these protocol questions for applicability and ensured they would solicit open-ended conversational responses prior to the official interviews. There were two occurrences where interview subjects expressed concern about the lack of anonymity. One asked that the recording be paused as a sensitive matter was shared. The other, after completing the interview and upon receiving the transcription, requested that all records of the interview be destroyed.

In addition to the interviews of the subjects mentioned, other points of collaborating data was sought from archival documents (press releases, organizational charts, functional / department mission, fiscal and attendance data), physical artifacts (buildings, website, etc.), as well as casual observations from being on campus. Archival documents provided a second view of the changes in terms of corroborating data (articles discussing changes discovered), as well as the physical changes (new buildings dedicated to revised priorities or missions). These secondary pieces of data were examined to ensure what was shared had additional proof.

Table 2: Sample of Archival Data Collected

Type	Examples	Sources
Periodicals	• Student News Paper articles related to New American University • Local Phoenix Newspaper Articles (current and historical) discussing research topics and interviewee mentioned items • Magazine and Journal articles	• State Press • AZ Central • Various Journals
Observations	• New Buildings and Construction • Posters and Materials seen on campus • Website postings	• Personal witness • Personal witness • www.ASU.edu
Historical Documents	• Speeches • Faculty Senate proceedings	• Inaugural Address • Senate Minutes
Financial Reports	• Budgetary documents • Revenue and Use documents	• www.azregents.edu • ASU CFO site
Presentations	• Conference Proceedings: Audio recordings and PowerPoint decks reviewed • Video presentations	• Conference sites • ASU Office of the President

The interviews were recorded digitally with two recording devices (pen and recorder). After transcribing the recordings, they were listened to while reading them to ensure accuracy. Additionally, to help ensure there was no misspeaking on a topic or issue, the offer to have the interviewee review their statements to ensure that what was stated is the way they had intended it to be stated. These recordings, being digital, were backed up in at least two distinct locations to prevent inadvertent loss and availability for review should such be desired. Destruction of one interviewee's interview and related records occurred as requested due to their reconsideration of the lack of anonymity.

Timeline of Study

February 19, 2011:   Proposal Accepted by committee

March 2, 2011:   Research study request submitted to Arizona State University's Office of the President.

March 29, 2011:	Approval for Study received from Dr. Michael Crow
April 13, 2011:	IRB submitted for approval
April 22, 2011:	IRB Approval received
May 16-21, 2011:	Five days of on-site visits to Arizona State University's Tempe Campus, Skysong facility in Scottsdale, and Downtown Campus in Phoenix as well as other local sites to visit interviewees and to gather archival evidence.
June – July 2011:	Transcription of interviews, archival / triangulation data discovery
August 2011:	Transcriptions shared with interviewees for edits and clarifications
Sept – Oct 2011:	Fourteen drafts of dissertation created with periodic submission to major professor; suggestions were received and edits were implemented and re-submitted
October 19, 2011:	Committee sent proposed dissertation
November 3, 2011:	Dissertation Defense completed

DATA ANALYSIS

Data collection, codification, and review in Microsoft Word and Microsoft OneNote. No other special coding software utilization occurred. Using a generally descriptive approach along with other theoretical frameworks allowed the analyzed data to be more structured. Bolman and Deal's Four Frames framework (structural, human resources, political, symbolic) (Bolman & Deal, 2008) lent itself to this study by

reviewing the implications in each of the frames that have been pursued at Arizona State University. However, Kotter's Change Stages (Kotter, 1995) strongly aligned with the approach by Dr. Crow in his attempt to change ASU. Examples and supporting comments related to each stage follows a stage description in the findings chapter. Review of the transcripts exposed additional themes; these themes were recorded and categorized into relevant topics covered in the findings chapter. Various frameworks and research were explored for applicable parallels to these additionally discovered themes. Similarly, where new themes not covered in the literature review were uncovered, additional literature research was provided for completeness.

When analyzing and collecting the data, care was taken to ensure personal bias did not enter into the analysis. The biases that might exist in the researcher come from his experience in the corporate sector. This sector has demonstrated that change is not only necessary to survive, but required to thrive in the face of competition or adversity. Continual checking against assumptions and conclusions was done to ensure an objective study was conducted and delivered. Care was taken to avoid the researcher's bias toward seeing change as a consistent solution to solve problems. The researcher had no specific ties to Arizona State University or in its actual or perceived success in approaching these changes. As the author comes from a business background and has an affinity for transformational change, careful review for a positive bias toward ASU's solution took place as the protocol was formed and during the analysis.

In addition to ASU providing detailed data requested, the collection of data from external sources for triangulation purposes occurred. This external data included enrollment data, research dollars spent, ranking information, and the like from sources

such as the IPEDS database, the Center for Measuring University Performance, National Science Foundation. These additional sources not only allowed statements from interviewees to be verified, but added comparative data.

SUMMARY

The qualitative approach provides a richer understanding of what has actually happened at Arizona State University since 2002 when Dr. Crow took over. Looking only to the numbers (quantitative approach) might have provide some useful metrics, but would not tell the story of how one of the largest institutions in the US became the largest and continues to grow in its pursuit to provide excellence, access, and impact. Understanding and illumination of what it takes to undertake such changes was gained by interviewing the individuals who have played a direct role in the development and implementation of these changes. Exploring the difficulties and challenges faced will also help make similar efforts was more approachable for others who might desire to undertake such sweeping changes or undertake a more modest approach and select only some of the changes. Once the research questions were examined via this case study, ASU's model for the "New American University" is explored for broader applicability to universities in general in the concluding chapter.

CHAPTER 4

RESEARCH FINDINGS

This study conducted interviews with Dr. Michael Crow, President of Arizona State University, as well as several administration personnel, faculty and their department heads both current and prior, former and current Faculty Senate Presidents, students, and various published materials quoting others who were unable to find time to be included in face-to-face interviews. The face-to-face interviews were primarily conducted on-site at ASU, with the exception of some video and phone interviews of those who were either out of town or no longer with the institution. The findings presented in this chapter are from these personal interviews and other published or observed sources. The first section provides a more in depth background of ASU. The history of and environment surrounding the university is a central theme discussed in many of the interviews. The following section explores the "New American University," what it is, what it claims to be, and perceptions surrounding these claims. The Design Aspirations, which are key to the "New American University," are examined next. While the intent was to only focus on three of the eight Design Aspirations, the high degree of interconnectedness between all eight discovered led to the other five being touched on. The changes observed at ASU and recorded during interviews are reviewed next. Following the changes section, presentation of various outcomes and evidences of change that occurred during the same period (Dr. Crow's presidency) are reviewed for potential proofs that something more than hearsay has occurred at ASU. Lastly, we examine some of the impacts of Dr. Crow

as related by the interviewees as the leader and his role in changing Arizona State University into the "New American University." Throughout this findings chapter, alignment or apparent adherence to Kotter's "Eight Change Stages" is called out as appropriate. Bolman and Deal's "Four Frames" as well as Imparato and Harari's "Jumping the Curve" are also highlighted, but are focused on to a lesser extent than Kotter's framework.

ASU BACKGROUND

According to many of those interviewed, the environment surrounding, and the history of ASU is a key factor in the changes and the opportunities for success that ASU has in becoming the "New American University." The following themes were predominate in the interviews: relative age of the institution and state, the scarcity of higher education options, leadership historically in Arizona, community engagement, the historical academic strength of the university, the improvement trajectory ASU had shown in several areas, as well as the demographics of the Phoenix, Arizona area. Each section below reviews these themes.

Relative Age of ASU and Arizona

Nearly half of the interviewees stated that the age of the institution is a significant factor in the ability of the institution to change. As stated in the literature review, originally established in 1885, it was in 1958 that the institution officially became Arizona State University. One administrator highlighted the fact that ASU was relatively young as a key enabler to being able to embrace change when he stated (personal communication, May 17, 2011), "the first Ph.D.'s were not given out at ASU until the

1960's, so, you know, we're kind of a late blooming institution." Furthermore, Rick Fabes, School Director at the School of Social and Family Dynamics states that ASU has various advantages to allow change.

> [ASU] is a young institution. It is not unionized and it does not have hundreds of years of structure and organization to it. So, if Michael had tried to do this at Ohio State, Illinois, or Iowa, an institution that has a long history—there would have been a revolt, I think. I think the youthful nature of ASU and being in Arizona, which is a state in the West that has a little bit more of a free-flowing atmosphere to it (R. Fabes, personal communication, May 20, 2011).

Dr. Thanassis Rikakis, Director of the School of Arts, Media, and Engineering, also highlighted a similar point when he said regarding trying new things,

> The risk at ASU is minimal because ASU is a young university. It is not risking its history in taking those chances. I think that is very important. It is like the state of Arizona. What do you have to lose? I mean, you do not have to lose as much—it is a young state (T. Rikakis, personal communication, May 16, 2011).

Dr. Michael Crow, ASU President (M. Crow, personal communication, May 19, 2011), stated that, "This University was young enough and was already trans-disciplinary enough and already deeply committed to the egalitarian access model that it could work here." The age of the institution was also correlated to the age of the state, as Dr. Crow (2002) cited in his inaugural address. "More than a quarter century would pass before Arizona territory became the last of the 48 continental states to join the union." (p. 6) He

continued to elaborate this point by saying, "Its cities and institutions are not bound by the weight of tradition because they are still in the process of being created." (p. 6) Many study participants stated that the relative youth of ASU allows it to be more open to change because it is still growing and becoming more established in its infrastructure.

Scarcity of Higher Education Options

Eric Menkhus, professor of Law and Director of the Innovation Advancement Program, points out that Arizona's higher education system is also unique in that there are only three state universities. "Michigan has how many state universities? Here is the other unique thing about Arizona—we have only three (E. Menkhus, personal communication, May 17, 2011)." This point was highlighted in another professor's words when she said, "To make this point perhaps even a little bit stronger, Greater Phoenix is the largest metro region in the United States with only one public research university (personal communication, May 19, 2011)." One Director also highlighted this situation as well as one perceived advantage of it when he said,

> Show me a city on the east coast—a large city like Philadelphia, New
>
> York or Boston—where there are not 25 research institutions. So [ASU's]
>
> the only game in town, which I think presented a unique opportunity in
>
> that there is no immediate competition (personal communication, May 20,
>
> 2011).

This scarcity of higher education sources comes with a responsibility as well, which Julia Rosen, Associate Vice President of Innovation and Entrepreneurship, clarified.

> ASU is the only public research university in greater Phoenix. Greater
>
> Phoenix has 4.5 million inhabitants, and Greater Phoenix represents 75%

of the state's economic activity. So, if you had any notion that institutions

of higher education play a role in developing an innovation-based,

diversified economic base for its citizens in a particular area or state, then

it's clear why ASU cannot shirk from this responsibility, because if we do

not play in the innovation economy, there are no other institutions to pick

up the slack (personal communication, May 19, 2011).

One former Faculty Senate President agreed,

The fact that Arizona had so few universities, just the state system of the

three universities and almost no private universities to speak of—one or

two, they are very small ones. And so, that particular environment made a

good way so Michael could develop some of these ideas in terms of

growing the university in size and serving this particular public (personal

communication, May 17, 2011).

As many universities are involved in moving their communities forward in several ways,

the relative lack of institutions of higher education in Arizona and more particularly in

the metro Phoenix area seems significant.

<u>Leadership Historically in Arizona</u>

Arizona and the Phoenix area were decried by some interviewed as having very

limited leadership in a few different aspects. The first offered was a lack of leaders in

general. One faculty member (personal communication, May 18, 2011) pointed out the

lack of historical leadership in the area. She shared that soon after Dr. Crow came to

ASU as its President, there was a press article that highlighted the top three leaders in

Arizona. That article highlighted the new governor, the new mayor of Phoenix, and the new President of ASU, Dr. Crow, as the three top leaders of the state. None highlighted in the listing were long time leaders and none listed were originally from Arizona. Arizona and the Greater Phoenix area also apparently lacked leadership in terms of its entrepreneurial effort as highlighted when SkySong's (an entrepreneurial incubator started by ASU in 2008) Julia Rosen shared,

> We had to create an entire eco-system because when we started, there was not even one other incubator and four million people, and no world trade center. At the time, our Department of Commerce had, I mean . . . gosh, I joke and I say something like our Department of History is bigger than the state's Department of Commerce because they faced years and years of being slashed by the legislature (J. Rosen, personal communication, May 19, 2011).

Another ASU administrator described the leadership vacuum as follows.

> Part of our vacuum of leadership is that we do not have a large corporate headquarters [in Phoenix]. We do not have any really large foundations, and our largest philanthropist doesn't spend money here. Our largest philanthropist, the top Forbes person who makes the list in Arizona is the head of the University of Phoenix, John Sperling, and, he spends his money … in other places (personal communication, May 17, 2011).

According to these individuals interviewed, there was a leadership gap in the area.

Community Engagement

Some of the more frequent comments on ASU's past surrounded ASU's prior involvement in the community. Ruby Macksoud, head of the English Department Internship program, states that prior to Dr. Crow and some of the efforts surrounding creating the "New American University" "there weren't a lot of community partners, and I wasn't seeing ASU represented in different ways in the community" (M. Crow, personal communication, May 19, 2011) and that is one area that has changed. Much of the community or social or service engagement that occurred at ASU historically was that of the "weekend service project" variety by those who were passionate about it. "The only thing that would drive [social engagement] at all is either the personal initiative of a faculty member or a staff member, or the idea that one of the responsibilities of faculty was to serve," stated one long-time faculty member (personal communication, May 17, 2011). Not all interviewed agreed with this perception of past efforts in working with the community being modest at best. One staff member focused on social embeddedness contradicted this view, "ASU, prior to President Crow's arrival, had a strong commitment to working with communities—it had service learning programs, it had community service programs (personal communication, May 17, 2011)." She pointed out this history of working in the community has in fact helped ASU's "New American University" move forward in succeeding more fully in its community engagement efforts.

Historical Academic Strength of ASU

The public perception of ASU historically has not been one of academic rigor or of excellence. A Faculty Senate President (personal communication, May 16, 2011) commented on how the perception of ASU has changed over the years regarding its

academic rigor. According to him past media seemed to support this idea that ASU was a school that was not academically tough. He shared the following example from an episode of "The Simpsons" in 1999. Flanders, Homer's neighbor, who thinks that only the righteous bound for Heaven have been spared from the flood comments disparagingly when his wife points out that Homer too survived. "Looks like Heaven is easier to get into than Arizona State." (Jean, 1999) ASU and Arizona's historically relaxed attitude in general was shared in one professor's comment when describing an experience in which a new professor was visiting ASU to potentially work at the institution.

> That relaxation part of Arizona is beginning to change. Now some people
> are going to say this is a good thing. I mean, I had somebody apply here
> in 2003—he did not end up coming here. When he visited here, he was
> like, 'Everybody's asleep.' I said, 'Yes, they are.' (personal
> communication, May 16, 2011)

ASU's lack of history as a top institution was also highlighted as an advantage in pursuing change by Kimberly de los Santos, Associate Vice President and Executive Director of the Office of University Initiatives, when she said, "it's not that we were already in the top ten or top twenty, so we would not want change what we're doing. I think that helped to set the tone very much for this "New American University" vision and transformation (personal communication, May 17, 2011)." There were those with more than a decade of experience at ASU who shared that there were some good things that were happening in the past, that have in some ways been lost. Two specifically called out were the pace of work that has been expected of the faculty was not as slow as in the past, and the number of students that faculty need to have in several of their classes

was much smaller in the past. One faculty member lamented that the days of walking into the Dean's office without an appointment and shaking hands on a deal for equipment or budget or the like are gone (personal communication, May 16, 2011).

Improvement Trajectory

Research was growing at Arizona State University as shown by the institute receiving their Research I Carnegie classification in 1994 (Carnegie Foundation, 1994). "Research was going up—no doubt. We were already doing very well at research," stated an ASU program director (personal communication, May 19, 2011). One Associate Dean confirmed the idea that ASU has been growing and changing throughout its history. "We are about 50 years old, more or less, so our history is much shorter [than institutions like Yale], but it also has had a fairly quick trajectory…because we've certainly changed a lot in the last 50 years (personal communication, May 18, 2011)." A couple of interviews argued that a trajectory of improvement and change is part of the institution's history.

Phoenix Area Demographics

The fact that there is only one research university to support the fifth largest city in the country, Phoenix (Rosenberg, 2011), sets ASU apart from most other universities located in metro areas. While ASU is the largest university, Maricopa Community College serves a greater portion of the access population with over 250,000 students taking courses (Maricopa Community Colleges, 2011). In spite of being located in a large metro area, one administrator pointed out the difficult situation that exists in terms of large company support.

So definitely, there are challenges. We don't have the same kind of social, financial or even intellectual capital in Phoenix that you might have in a New York, or even in LA or in Atlanta—other places where you've got, you know, Coca-Cola, Home Depot, you've got these places that we don't have. What are we the headquarters for? Nothing. (personal communication, May 17, 2011)

One faculty describes the population of Phoenix as follows. "Phoenix has sort of a unique demographic in that we're a bunch of people who picked up and moved from wherever we're from, and that might bring some sort of mentality of comfort with change (personal communication, May 16, 2011)." In Dr. Crow's inaugural address (Crow, 2002) he shared that there were several reasons why the traditional approach of other institutions was not suitable for Arizona State University as it undertakes becoming the "New American University." The first area he highlighted was that of the cultural landscape of Arizona. The Native American people and the Hispanic population of Arizona have greatly increased and he stated that Arizona should embrace its cultural complexity of Arizona. The second area highlighted by Dr. Crow was the changing demographics of the state. He said Arizona had grown by 40 percent in just the last decade and that one in four Arizonians is now of Hispanic origins. Next, he highlighted the economic exigencies that exist and called for an increase in collaboration with K-12 school districts in producing a more educated work force as a large portion of jobs in the future are going to knowledge workers. One staff member also highlighted this point when she said, "There are definitely areas of the country where there is a lack of individuals who've received a college education. In Arizona—this is one of those places

(personal communication, May 17, 2011)." Dr. Crow also declared that with the growth of Arizona, the resources of the state need to be focused on the education system to not only allow it to solve issues, but foresee and avoid issues in the future. The environment and culture of Arizona tie directly to Dr. Crow's view of the "New American University."

Nearly all interviewees felt the environment and the situation that ASU finds itself in were critical to the success of the "New American University." They stated that ASU being young and therefore still changeable is an advantage in pursuit of this new model. ASU is the only public institution serving a metropolitan area with a population of over four million. The institution itself, in most interviewees' opinion, was not historically at the top of the heap as a university when compared with others. The state itself is going through rapid change culturally, economically, and in terms of population. Finally, while there were efforts historically to assist in improving the communities of Phoenix and the surrounding areas, those efforts were in most opinions shadows of what they could have been. So given all of the above, Kimberly de los Santos stated clearly, "What we've done at ASU shouldn't be done exactly [this way] anywhere else (K. de los Santos, personal communication, May 17, 2011)." These historical and demographic points of context help to inform some later observations shared in the remainder of these findings.

NEW AMERICAN UNIVERSITY

Dr. Crow introduced the New American University at his inaugural address in November of 2002. He described the "New American University" as a research university that "must not be static – it must be dynamic. In response to the demands and

opportunities of a changing world, the American research university must evolve." (p. 3) He explains that while there have been various models proposed pointing toward a "New American University" that these models have not gone "far enough to embrace the changes ahead." (p. 3)

> The new American university cultivates excellence in teaching, research, and public service, providing the best possible education to the broadest possible spectrum of society. The new American university would embrace the educational needs of the entire population—not only a select group, and not only the verbally or mathematically gifted. The success of the new American university will be measured not by who the university excludes, but rather by who the university includes, and from this inclusion will come its contributions to the advancement of society." (Crow, 2002, p. 3)

Kotter's first change stage is that of creating urgency. In order to create that kind of urgency Kotter explains that leaders should not appeal to logic,

> Consequently, leaders who know what they are doing will 'Aim for the Heart.' They will connect to the deepest values of their people and inspire them to greatness. They will make the business case come alive with human experience, engage the senses, create messages that are simple and imaginative, and call people to aspire. (Kotter International, 2011, para. 4)

During his inaugural address, Dr. Crow (2002) made several appeals to the hearts of Arizonians. He shared that Arizona could indeed improve upon their excellent history in

teaching, research, and public service and beyond that "serve as a bellwether in its [the American research university's] reconceptualization." (p. 3) He shared that,

> The transformation of Arizona State University will transform the State of Arizona, enriching it economically and culturally. But let us not limit our vision because the development of a new American university here in Arizona will have impact beyond the borders of our state. (p. 3)

By doing so, he appealed to the local pride as well as the desire to be a leader globally in this new undertaking or re-creating of the research university. The rationale for not following the model every other research university follows highlighted in the background section above also provided the Arizonians with a certain sense of comfort. This new president had a deep understanding of the community and was working to solve the issues that surrounded it, namely: improving the economic circumstance, providing education to all in the community regardless of socio-economic status, working to improve all levels of education in the community, and working to solve the environmental challenges that will and are facing Arizona and the world. Each of these areas were indeed "aimed at the heart" of Arizonians as Dr. Crow unveiled his vision for the "New American University." While it is apparent from the interviews that the credit for creating the model for the "New American University" is indeed Dr. Crow's, he shares that the following led to the New American University model:

> The main driver for me was the indicators of American decline and then being equally influenced by several writers, most notably Frank Rhodes, who wrote *The Creation of the Future: The Role of the American University*, and then Jim Duderstadt who wrote a book called *A University*

for the 21st Century, and then a guy named José Ortega—a Spanish philosopher from the 1930s. All of them calling for and talking about universities needing to be something other than rigid, faculty-centric places where it was difficult to make adaptive progress. (M. Crow, personal communication, May 19, 2011)

Kotter's second step in his change framework requires creating a guiding coalition because,

No one person, no matter how competent, is capable of single handedly developing the right vision, communicating it to vast numbers of people, eliminating all of the key obstacles, generating short term wins, leading and managing dozens of change projects and anchoring new approaches deep in an organization's culture. Putting together the right coalition of people to lead a change initiative is critical to its success. That coalition must have the right composition, a significant level of trust, and a shared objective. (Kotter International, 2011, para. 1)

This "guiding coalition" at ASU takes the form of the Office of University Initiatives.

The Office of University Initiatives (UI) is a cultural catalyst at ASU. We think about what ASU needs and how to help the university meet those needs. We connect ideas, people and resources to make an impact. Through collaboration with other offices and departments across the university, in addition to state, national and international leaders, we help to shape and realize ASU's goals. Much of our work falls into five

overlapping categories: advancing our New American University, entrepreneurship, social embeddedness, university innovation, and education at ASU. (Office of University Initiatives, 2010, para. 1)

Kotter continues to describe what some of the characteristics of this guiding coalition should be.

In putting together a Guiding Coalition, the team as a whole should reflect: Position Power: Enough key players on board so that those left out cannot block progress; Expertise: All relevant points of view should be represented so that informed intelligent decisions can be made; Credibility: The group should be seen and respected by those in the firm so that the group's pronouncements will be taken seriously by other employees; Leadership: The group should have enough proven leaders to be able to drive the change process. (Kotter International, 2011, para. 7)

With regard to the "Position Power," the Office of University Initiatives which Dr. Crow established in July of 2002, immediately after taking over as ASU's 16th President, is located by and tightly associated with the Office of the President, providing position power. Additionally, the Executive Director, Kimberly de los Santos, "has been instrumental in the development and communication of ASU President Michael Crow's vision to be a new American university" (Office of University Initiatives, 2010, para. 2) and she also came from Columbia University along with Dr. Crow. It was readily apparent that Kimberly and the others on staff at the Office of University Initiatives have the expertise in each of these areas described in their mission above. The Office of University Initiatives works with nearly every other campus department in integrating the

"New American University" vision into their activities. Working with the various organizations helps UI improve their expertise position, as well. The position of UI as part of the Office of the President also lends to its credibility. The one area that may have been less than ideal in the formation of UI as Kotter's proscribed "guiding coalition" would be the area that is described as leadership. The leadership and staff of UI were all new to ASU and many of them have careers measured in months as opposed to the decades of experience possessed by the faculty who they work with. In spite of this potential shortcoming, the power position of being in lock step with Dr. Crow has positioned this office as the source for answers if one did not go directly to Dr. Crow by many of those interviewed.

The third stage in Kotter's change framework is "Creating a Vision." Kotter describes that these visions need to be strategically feasible, simultaneously accounting for the reality of the situation a particular organization finds itself and yet all the while providing ambitious goals.

> Great leaders know how to make these ambitious goals look doable.
> When a vision is undergirded with a strong, credible strategy, it becomes
> evident to the stakeholders that the vision is not a pipe dream. A vision
> must provide real guidance. It must be focused, flexible and easy to
> communicate. It must both inspire action and guide that action in
> foreseeable ways. It should be a touchstone for making relevant decisions,
> but not be so constricting as to reduce the possibility of empowering
> action. Finally, it must be communicable. If it cannot be explained

quickly in a way that makes intuitive sense, it becomes useless. (Kotter

International, 2011, para. 3-4)

While many leaders work with the institution and the leaders in place to construct and create a vision for an institution, Dr. Crow, by all accounts, created the vision for the "New American University." While this might seem unusual for an individual new to a position especially when new to the institution, Dr. Crow was familiar with Arizona State University. He had acted as a consultant at ASU for a decade prior to his assuming the role of President. The strategy or culture change agenda developed by Dr. Crow took the form of the "Design Imperatives of a New American University" which he described in his inaugural address. These Design Imperatives, which were later renamed Design Aspirations, were indeed flexible. Not only did the name of them change to Design Aspirations, but the content and description of the Imperatives also changed. Once changed into Design Aspirations, these guides or values provided guidance while enabling those working on them to innovate and interpret how they would be realized. These Design Aspirations and the changes they underwent are examined in detail later in these findings.

As stated above, Kotter shares that the vision must be easy to communicate and this leads directly to the fourth stage in his change framework – Communicating the Vision. Kotter explains that vision communication is nearly always underdone.

Most companies under communicate their visions by at least a factor of

10. A single memo announcing the transformation or even a series of

speeches by the CEO and the executive team are never enough. To be

effective, the vision must be communicated in hour-by-hour activities.

The vision will be referred to in emails, in meetings, in presentations – it will be communicated anywhere and everywhere. (Kotter International, 2011, para. 2)

In Dr. Crow's inaugural address the "New American University" is introduced as moving ASU forward in providing even greater excellence in research, teaching, and public service. At the conclusion of his address, he highlights this.

[This] new gold standard will be represented by the university that is inclusive, rather than exclusive, the university that is fully committed to its community, the university that directly engages the challenges of its cultural, socioeconomic, and physical setting, and shapes its research initiatives with regard to their social outcomes. (Crow, 2002, p. 37)

While the strategy for implementing the "New American University" is encapsulated in the Design Aspirations, the vision itself has been simplified as being about Access, Excellence, and Impact as called out on the "New American University" website (Arizona State University, 2010, p. 6). These three goals parallel those of the "iron triangle" which desires to provide education that is low cost, high quality, and widely accessible. Achieving all three of these is difficult at best according to Hearn and Lacy. "…although serving any two of the goals aggressively is conceivable, the pursuit of all three can invoke difficult tradeoffs (Hearn & Lacy, 2009, p. 943)." It would appear one of the more defining characteristics of the "New American University" is its desire to provide all three of these worthy goals simultaneously.

Bolman and Deal's symbolic frame is applicable to mention here. The ideals of Excellence, Access and Impact are examples of both ways to provide direction as well as

embody faith in where the organization is striving to go. The stories of the successes are presented on the front pages of the various websites of the institution, so as accomplishments are made – all get a chance to be excited about what has been accomplished. If it looks like ASU is living the ideals of the "New American University," as shown through these symbolic evidences, then it must at least be on the path to becoming it. (Bolman & Deal, 2008, p. 251)

<div align="center">Excellence</div>

Excellence at ASU since the adoption of the "New American University" model exists in several areas and others area are lacking. Examples of several of these specifically called out during the interviews follow. One particular area that was prevalent in these discussions was the area of improved quality at Arizona State. According to those interviewed, quality improved at ASU in several areas. The first was referenced the students themselves. Improved freshmen retention rates are cited as increasing each year and are now standing at 83% university wide whereas it was in the high 60's in the mid-1990s and was 75-76% in the mid-2000's. (Keeler, 2010) Evidence cited of the improved excellence of the student body was the performance on test scores by incoming freshmen. Similarly, reference to the Wall Street Journal article citing ASU as being in the Top 5 for corporate recruitment (Evans, 2010), found on the university's webpages was recited by several faculty when they discussed the improved nature of graduates. One department head shared his perception of student improvement by stating, "The students don't expect to just show up and get a grade and then just go out and wash dishes." (personal communication, May 16, 2011) Additionally, ASU was the second-most awarded public university for student Fulbright awards, sixth overall

nationally. Another faculty member shared on the improved quality of students now considering ASU, "There are people we wouldn't get ten years ago. They would not consider applying to ASU. I mean, you can see who applies, and who considers coming here. They're just a different type of student." (personal communication, May 16, 2011) This improvement in students was not accidental according to one faculty member. "I remember early on—he [Dr. Crow] put a lot of emphasis in admissions. 'Let's get out and hit the ground running.'" (personal communication, May 18, 2011)

In addition to improved excellence in students, several interviewed stated that faculty excellence had improved. The university itself highlights the quality of their faculty on its website. As Table 3 below shows, many faculty members are recipients of various accolades. There are three Nobel Laureates listed as ASU faculty (Dr. Elinor Ostrom, Dr. Edward C. Prescott, and Dr. Leland H. Hartwell). Two of these Nobel recipients also concurrently hold positions at other universities and apparently split their time between ASU and those other institutions. Tempering these faculty accolades as evidence of faculty excellence a former Faculty Senate President's shares the following shortcoming.

> I think where the "New American University" has failed to achieve its
> goal of being better at everything, is probably in the teaching area. I fear
> that the demands on the time of the faculty mean that they no longer have
> the time to do the quality teaching that they need to do. I think that is the
> area that is suffering a little bit. (personal communication, May 19, 2011)

In all of the interviews conducted, not one individual stated that the teaching at ASU had improved, but many shared the increased size of classes as a difficulty the faculty faced.

The dual nature of these increased demands was shared by another professor, "People are awake—it's not really a negative. There are negative parts to it, because people are more tense, yes." He continues, "It takes a toll, you know. The quality drops because there comes a point when you cannot be dealing with that many people." (personal communication, May 16, 2011)

Table 3: ASU Faculty Awards and Memberships

Awarding Institution	# of Awards
Nobel Laureate	3
MacArthur Fellow	1
Pulitzer Prize	6
National Academy of Sciences	12
American Association for the Advancement of Science Fellows	66
American Academy of Arts and Sciences	11
National Academy of Engineering	9
National Academy of Education	4
National Academy of Public Administration	3
Guggenheim Fellows	24
National Science Foundation Early Career Development Program	84
Presidential Early Career Awards for Scientists and Engineers	8
Department of Energy Early Career Principal Investigator Program	1
Department of the Army Young Investigator Program	1
Fulbright American Scholars	114
American Council of Learned Societies Fellows	8
National Institutes of Health	8
Royal Society	3
Institute of Medicine	2
Ford Foundation Fellowships	18
IEEE Fellows	21
Alexander Von Humboldt Foundation Research Prize	19
Rockefeller Fellowships	1
Sloan Research Fellows	5

Source: Arizona State University: Office of the Executive Vice President and Provost of the University. (2011)

The excellence of the programs delivered and improvement in the various university rankings are shared as proof of improved quality on the university's website. One ASU staff member when asked what has changed as part of this new model described these programs, faculty, and students improving in excellence.

> I think [the change has been] significant because we have seen, you know, the amount of research dollars and historic levels of investor money coming in. So, I think it's been significant. I also think there is the non-monetary aspect of folks… like all-star faculty or students who may not have associated themselves with ASU if it was not for the vision. Because a lot of the leaders at ASU will say that they came here because they shared the vision. (personal communication, May 16, 2011)

While many may have cited these accomplishments as clear "proofs" of the excellent nature of ASU or any other institution, there is argument that can be made that many if not all of these achievements in and of themselves do not ensure excellence in an institution.

<div align="center">Access</div>

The idea of access is to provide more individuals with the opportunity to attend college and get a college education. As was cited above, the demographics of the Greater Phoenix area are such that there is an increasing population especially among those who are Hispanic. ASU has a specific program called Access ASU which,

> Access ASU is a catalyst for change, transforming Arizona's college-going culture by empowering students to invest in their future and attain a university degree. Access ASU encourages academic readiness, increases

college exposure, builds student self-confidence, provides adult role models, fosters parent support, and promotes financial aid literacy… [and] is dedicated to providing students, parents and K-12 teachers and administrators with essential college readiness resources. (Arizona State University, 2011, para. 1)

This is one example of how ASU is working to provide more access to citizens in Arizona.

Another way that ASU has shown that it continues to provide access is through its financial aid programs. In spite of having nearly $200 million cut from their budget over the past few years, ASU has announced on their website in 2010 that there would be no impact to financial aid dollars provided. ASU students receive over $800 million in scholarships and grants. Additionally, ASU also invests in a needs-based financial aid program. One faculty member pointed out that, "in spite of the budget cuts, needy local individuals continue to be able to find ways to come to ASU through the efforts of Dr. Crow. He probably doesn't get that much press on this – but he should." (personal communication, May 18, 2011)

Some data (first five years of the New American University) on the level of financial aid provided to students at ASU is included in the table below from the Student Financial Assistance Office.

Table 4: ASU Students Receiving Institutional Aid and Financial Aid

	2003-04		2004-05		2005-06		2006-07	
	#	%	#	%	#	%	#	%
Total Inst. Aid	12,826	31%	13,592	32%	15,447	35%	17,688	39%
Ave Award	$2,985		$3,458		$3,648		$3,641	
Total Fin. Aid	23,332	57%	24,528	58%	25,986	59%	26,028	57%
Ave. Award	$7,721		$7,794		$7,973		$7,965	

Source: ASU Student Financial Assistance Office

The figure below shows further evidence of efforts to provide financial aid to those who are needy.

Figure 5: Financial Aid Awarded by Income Level (2006-2007)
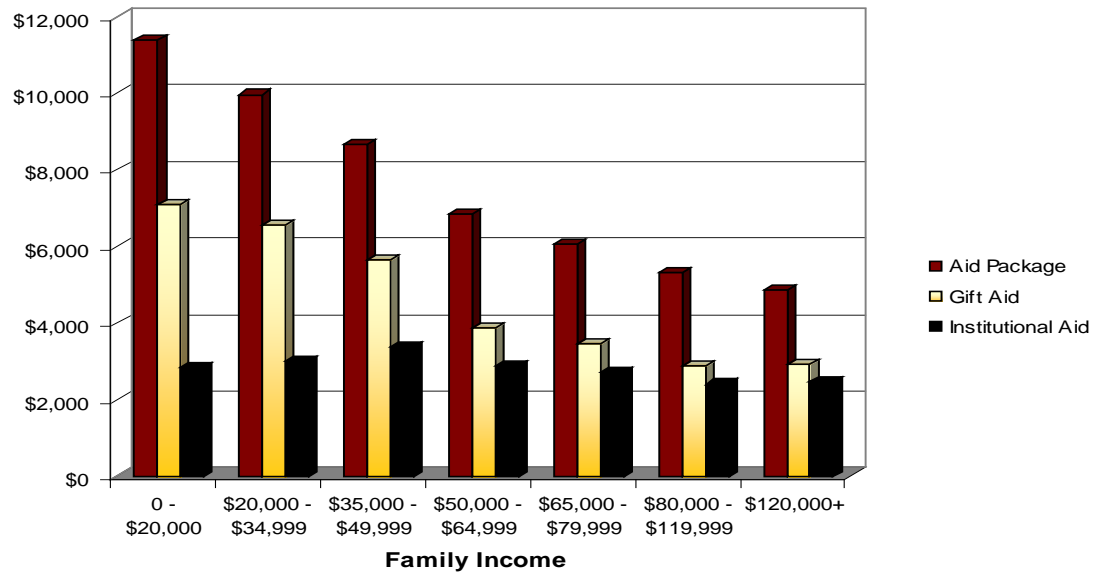
Source: ASU Student Financial Assistance Office

In addition to providing aid to those in need, ASU has been serious about improving access to ASU from the very start. Afsaneh Hanavandi, an Associate Dean at ASU, shared the following experience.

> I was at West Campus when that [Access focus] started happening. I was in charge of the freshman program. Immediately we had people coming to me and saying, 'We're working with high schools on access. How do we market your program? How do we recruit students?' So that was almost immediate. I think that was one of the things that happened very quickly. (A. Hanavandi, personal communication, May 18, 2011)

Even if a student is not accepted into one of the top programs offered at ASU there is a path to improve and gain a college education. Another professor discussed various options provided to ASU students.

> [We have a] bachelor of inter-disciplinary studies, I don't know that all schools have that type of thing. But there are a lot of students that don't get into, let's say a professional program like the business school. To still get a business education by having an inter-disciplinary studies major in business and communications or business and philosophy or something like that . . . I haven't studied it, but I know a lot of students that don't get into W.P. Carey School of Business end up in a bachelor of inter-disciplinary study type of degree. (personal communication, May 17, 2011)

In most of the interviews, strong support and adulation for ASU's Access programs was provided. A more critical view of improving Access taken from some of

the press clippings decries the increases to tuition for students. How can low-income students hope to find Access to ASU if the costs continue to rise? (Shoultz, 2011) As long as everyone is unable to attend ASU, criticism is possible.

<div align="center">Impact</div>

ASU describes impact as changing the local and global community for the better. This applies to Access in part, but goes beyond it to being an integral part of the community in terms of solving the problems they are facing. The Greater Phoenix area has benefited economically as a new campus and new buildings downtown have helped to stimulate the downtown business economy. ASU works on a regional and national deficit in quality K-12 teaching by providing over 1,000 new instructors to the community as well as providing free English classes as part of students' class activity. According to the interviewees and discovered artifacts, ASU also focuses its research efforts on practical problem-solving issues that span not only the local area, but are also global issues. Discussion of these impacts is shared in detail in the Design Aspirations section. As areas of importance to the world at large have become the focus at ASU, one professor believes the following:

> We're going to see the gap. Your New American Research University it is
> … more [focused on] high-impact fields, and I think [Dr. Crow's] getting
> that message across. More globally…I mean, it's very transparent…but
> this is the new research university . . . it's the new iteration of research and
> that's exactly how I see this model. (personal communication, May 18,
> 2011)

ASU will have a competitive advantage in the future because it has moved into the space of being a global issue problem solver.

Summary

Providing both Excellence and Access at the same institution would seem to be something that is at its heart contradictory. How can you allow increased access and still maintain the excellence demanded of a top institution? In a presentation made to the Milken Institute Global Conference, Dr. Crow highlighted the ways in which ASU is "obliterating the false dichotomy of access vs. excellence" by pointing out several facts:

- 16,000 new students were added (diversity and graduation rates increased)

- 500 new faculty added (Academy member percentage increased)

- 7M sq. ft. of academic space added (1M was world-class research space)

- New locations added (while increasing investment in existing campuses)

- Research expenditures topped $300M (top 20 research institutes without a medical school)

- Significant investments from municipalities (simultaneously receiving the largest private gifts in ASU history) (Crow, 2009, pp. 16-21)

One faculty member offered that the way ASU provides both Access and Excellence is that the areas of Excellence exist in pockets such as the top business school, but only the best get in to the full program. "The schools that are striving for excellence, like the upper division stuff at W. P. Carey, are still really difficult [to get into], so there's still excellence within that [program]. And so, you can get a reputation for excellence." (personal communication, May 17, 2011) When asked if there was real improvement in the Excellence, Access, and Impact of the university, one program director shared,

Just to review these things, our students are desirable, they are being hired. We have better quality students coming in; our retention rate has improved enormously from freshman to sophomore year; all sorts of star faculty have now come to ASU because of the vision; we have, gosh, how many companies, you know, within the eco-system? . . . We have impacted thousands of entrepreneurs. On every level, there are proof points that show our improvement. We are serving a larger number of students and doing it better, and we have all sorts of important impacts. (personal communication, May 19, 2011)

With the vision of the "New American University," "ASU is committed to excellence, access, and impact." (Arizona State University, 2010) This overarching vision works in a symbiotic relationship with the Design Aspirations. As these aspirations are reviewed in detail below, excellence, access and impact will be highlighted as examples present themselves. Table 5 below provides the researcher's summary of the significance of Excellence, Access, and Impact in relation to each of the Design Aspirations.

Table 5: Excellence, Access, and Impact Focus in ASU's Design Aspirations

Design Aspirations	Excellence	Access	Impact
1. Leverage Our Place	×	O	O
2. Transform Society	×	Δ	O
3. Value Entrepreneurship	O	×	Δ
4. Conduct Use-Inspired Research	O	×	O
5. Enable Student Success	O	Δ	Δ
6. Fuse Intellectual Disciplines	O	×	Δ
7. Be Socially Embedded	×	Δ	O
8. Engage Globally	Δ	Δ	O
O: Strong Correlation Δ: Moderate Correlation ×: Minimal Correlation			

<u>DESIGN ASPIRATIONS</u>

When Dr. Crow introduced the New American University in his inaugural address, he stated that to achieve this new model and to "become the leading public metropolitan research university in the United States," (Crow, 2002, p. 2) the university needed to follow certain design imperatives. As shared by one former Faculty Senate President, Dr. Crow had to work on some of his word usage in bringing about change. The shift from Design Imperatives to Design Aspirations was one example of this occurring. Table 6 below compares how each of these shifted in name primarily, even though the underlying direction did not change much.

Table 6: Original Imperatives Compared with Current Aspirations

	Original Design Imperatives	**Current Design Aspirations**
1	ASU Must Embrace its Cultural, Socioeconomic, and Physical Setting	Leverage Our Place
2	ASU Must Become a Force, and Not Only a Place	Transform Society
3	ASU as Entrepreneur	Value Entrepreneurship
4	Pasteur's Principle	Conduct Use-Inspired Research
5	A Focus on the Individual	Enable Student Success
6	Intellectual Fusion	Fuse Intellectual Disciplines
7	Social Embeddedness	Be Socially Embedded
8	Global Engagement	Engage Globally

Source: ASU Office of the President and Office of University Initiatives

While each of these Design Aspirations have changed in name, review of the transcript from Dr. Crow's inaugural address reveals that the purpose as explained behind the name remains unchanged. The change in names actually aligns well with the guidance provided by Kotter in how to design vision statements. "If it cannot be explained quickly in a way that makes intuitive sense, it becomes useless." (Kotter International, 2011, para. 4) The new names of the Design Aspirations are much more

immediately understandable, to wit: Pasteur's Principle versus Conduct Use-Inspired Research. One thing that was noteworthy in the development of this vision and specifically these Imperatives turned Aspirations – there are no hard targets described for any of the eight areas. Often when creating a vision to drive an organization forward, a BHAG or Big Hairy Audacious Goal is created. (Collins, 2001) That goal, while ambitious, is knowable and measurable. Dr. Crow provided no such measurable metric for this "New American University." There is no measure to say, "We are there." When asking the interview respondents if any of the Design Aspirations had been accomplished, most agreed that progress had been made, but that they were not "done." These Design Aspirations function as values that are to become embedded into the university culture. One administrative staff member from the Office of University Initiatives felt similarly, when she said,

> I think the culture of the New American University is embedded within
> the students, faculty, and staff. I do not know that you could pull up to
> any student and ask them to recite the design aspirations because I do not
> think that is what it is all about. But I think that the culture does exist, so
> it will continue to grow stronger. (personal communication, May 17,
> 2011)

When an ASU student was asked whether he thought other students would be able to describe the "New American University," the answer was a clear – no. When asked how they would respond if they (the students) thought ASU was involved in transforming society, or entrepreneurship, or doing research that was use-based, or integrating various disciplines, he responded more positively. "You'd get a much better response depending

on which items you ask and what that particular student's area is, but students . . . I think most students definitely recognize that there's a lot of push toward these things." (personal communication, May 17, 2011)

As an in-depth examination of each of these Design Aspirations is beyond the scope of this research, focus was on three specific Aspirations: Value Entrepreneurship, Fuse Intellectual Disciplines, and Be Socially Embedded. In conducting this research, it became clear that isolating just three of these Design Aspirations completely was not possible. Some examples of how these all interconnect are shared below. Review of the three selected aspirations occurs in detail. Examples are also provided of the interconnectedness between those three in a later section. Discussion is provided on additional interconnections between all of the Design Aspirations.

<u>Value Entrepreneurship</u>

In describing how to advance the Design Aspiration of Valuing Entrepreneurship at ASU, Dr. Crow described the necessary actions as follows.

> ASU faculty members engage in path-breaking research, developing new
> learning tools and new products with commercial application, all of which
> have the capacity to generate new revenues for the university. ASU must
> capitalize on its knowledge content and intellectual property, expediting
> the transfer of knowledge and technology developed in our classrooms and
> laboratories to the commercial sector. (Crow, 2002, p. 17)

Along with a call for faculty to put their activities through an entrepreneurial filter, Dr. Crow challenged the university to seek new revenue streams through this effort as well. He went on to state that this was not to be a one-time effort, it was to become integrated

into the culture. A student's view of the purpose of valuing entrepreneurship at ASU was, "I'm glad to see that is really changing, and that it is obviously been one of the main points of the "New American University." It's more about job creation versus filling jobs that are there." (personal communication, May 17, 2011)

Integrating a new paradigm into a culture can take time. Nearly a decade after introducing the "New American University's" aspiration to Value Entrepreneurship, the level of integration of this aspiration at ASU was observed both through the interviews as well as various artifacts in and around the campus. One of the most referenced examples of entrepreneurship at ASU was their new incubator – SkySong, the ASU Scottsdale Innovation Center. Its purpose is to link "technology, entrepreneurship, innovation and education to position ASU and Greater Phoenix as global leaders of the knowledge economy." (ASU SkySong, 2011) SkySong has placed ASU resources at the fingertips of innovative business entrepreneurs to foster economic growth in the Greater Phoenix area. It provides space and a forum for innovation to occur. While there are no entrepreneurial areas expressly prohibited, there are ample calls for sustainability initiatives and companies that are working on global problems (two of the other five Design Aspirations for ASU). Director Julie Rosen describes the uniqueness of SkySong as compared to other institutions' incubator efforts.

> We try to look at this from a global perspective. I would say that, within
> the United States, we are not aware of an institution that has merged its
> global activities and its innovation activities in quite the same we have.
> For example, we are quite proud that we have been able to attract over 50
> companies here from 11 different countries. You might see a lot of other

universities do global work, and it's usually about exchanges—faculty exchanges, students—maybe some consulting contracts to work with other universities. But, we are very much engaged and also helping Arizona entrepreneurs globalize their operations, so we've found a niche, globally, that I think is pretty distinct. (J. Rosen, personal communication, May 19, 2011)

Other interviewees shared that they believe SkySong brings many international companies together to collaborate and work on global problems. Many of those interviewed did not know specifically about other universities' efforts in this area, but could state definitively that ASU is doing "much better than it has in the past" with regard to entrepreneurship.

Another way that ASU assists Arizona's innovators, entrepreneurs, and small businesses is through an integrated effort called the Innovation Advancement Program. This effort is a partnership between two student groups from the law school and the business school that provide assistance with business formation, business plan review, and legal advice on things like patents, intellectual property rights, and employment agreements. The Center for Law, Science & Innovation at ASU houses this program. Observe again here the pursuit of multiple aspirations simultaneously. In this case, Value Entrepreneurship efforts are facilitated by the Design Aspiration of Fusing Intellectual Disciplines.

When speaking with those focused on entrepreneurship at ASU, they highlighted the fact that nearly five years ago the University received notification that they would be the recipients of a five-year five million dollar grant from the Kauffman Foundation. The

Kauffman Foundation is an organization that desires to advance entrepreneurship education and training efforts. The Kauffman Foundation described its selection of Arizona State University as follows. "ASU was selected based on a series of criteria, including the ability to create a culture of entrepreneurship that permeates the campus, the potential to create new representative models, and the ability to partner with other foundations and funders." (Keeler, 2006, para. 8) The Kauffman grant also allowed ASU as a whole to become more focused on valuing entrepreneurship. One staff member described how that happened.

> Within the university there was a perspective that perhaps entrepreneurship was something bad, that it wasn't really valued. With this Kauffman Foundation grant we were able to establish programs in some colleges that perhaps are not traditionally involved with entrepreneurship so students are exposed directly to it as opposed to just having the perspective of, 'Oh, entrepreneurship, that's something the business school does. It's not something I really have to get involved with.' Or perhaps, traditionally, it's been involved with the business and probably engineering schools and this [Kauffman grant] enabled more students [to be] involved. (personal communication, May 16, 2011)

When discussing the concept of entrepreneurship with those interviewed some various concerns about the terminology, namely around the word "entrepreneurship." were raised. Julia Rosen described the confusion as follows.

> There's a big debate about the word entrepreneurship. Some people do not think that entrepreneurship is a good word, and many people think it

only has to do with making money. We mean it in a number of different ways, so it's sometimes hard to get that point across in all the different ways we mean it without inadvertently turning somebody off or having them think it's something that it's not. (J. Rosen, personal communication, May 19, 2011)

The dual purpose of this Aspiration prompted this additional comment from her. "We mean it both as a cultural value—the institution and how we approach our jobs—and also the fact that we, as a university, want to be partners in creating new enterprises." A program director shared, "if you want to include everybody, and get everybody excited about [entrepreneurship], you have to kind of expand the definition. Otherwise it lives in the business school, and that's what we were trying to avoid—we wanted it to across campus." (personal communication, May 17, 2011) The disparity in language across the various departments, according to one respondent, was an area that needed management. Use of the word entrepreneurship provided a very different understanding at the fine arts college as compared with the business school.

Entrepreneurship is pushed into nearly every area of ASU. It is outdoors in the walkways on posters as well as in all of the buildings. Various awards, grants, and scholarships are available that encourage students to pursue their entrepreneurial interests. One student, an Edson grant recipient, described the difference between ASU entrepreneurial awards and those provided by other institutions.

A lot of other universities have similar type of programs for students to win money that they can use to apply to their start-up company or whatever it is that they're working on. I have heard of few grants like the

Edson grant that we have here. Some of them [at other universities] are structured more as business plan competitions. I think ours is more focused around a working model of where you must actually have a company that you're working on. (personal communication, May 17, 2011)

One staff member and former ASU student shares her perspective how things have changed over the years.

I have seen a lot of change. I know when I was an accounting major . . . I attended business school, the emphasis was really on big business. You graduate, you go into big business, you know, and that was kind of the accepted path, whereas now students are, you know, we have an initiative right within our career services area to make students aware of entrepreneurship as a viable career path and ways for them to explore it like through the certificate program. (personal communication, May 16, 2011)

One of the key qualities of entrepreneurialism is that of being comfortable with risk. In this way, not only does ASU teach and encourage entrepreneurship, but practices it as well. Julia Rosen shared her insight on how comfortable ASU and Dr. Crow are with taking on risk.

I came from venture capital. I can tell you [Dr. Crow] is more risk-tolerant than any venture capitalist I have ever met, or any equity investor I have ever met. He has a true tolerance . . . tolerance for risk, and if people fail and do it quickly, and get back on the track and try something

else, that is part of the environment. So, I think he'd say it's better for ASU to try 500 things and have 100 of them not work than try ten things that have been studied to death and that take too long to get to market. (J. Rosen, personal communication, May 19, 2011)

Another entrepreneurial aspect of the University itself is the encouragement given to all departments to find additional sources of revenue. Rick Fabes, School Director of the School of Social and Family Dynamics, related one example of how his division was poised for an on-line summer school program announced by the provost because they had already been pursuing entrepreneurial activities during the summer. He describes the benefits to the school having an entrepreneurial mindset as follows.

The way to move the school [forward] is that you figure out, in this complex and changing environment, how to be entrepreneurial and how to use what the environment gives you to generate your own resources. Do things on your own—not to have to wait for the provost or the dean to give you what you need. You go out and do it. And the schools that have been successful have been those schools that have done exactly that. (R. Fabes, personal communication, May 20, 2011)

The fast-paced nature of entrepreneurship presents another set of issues. One of the disadvantages ASU faces is the process it has to gain approval for curriculum. One student shared his experience in working with a professor teaching entrepreneurship at ASU as well as his suggestions on how to change the system.

I would leave behind some of the very structured classes, and just a lot of the structure in general, because entrepreneurship is one of those things

that move so fast. You know, I was talking with a professor of an entrepreneurship class—several entrepreneurship classes—and, I mean, for her to get a curriculum approved, you know, from the time she thinks of it, to the time she's teaching it, it's at least a year. But, so much has changed in a year, that being able to keep pace with that is impossible with that model. So, [I would] leave behind the structure to allow more agility. (personal communication, May 17, 2011)

Some artifacts discovered as evidence of ASU's commitment to entrepreneurship and its pervasiveness throughout the university include the following (ASU Magazine, 2011):

- ASU colleges and schools engaged in entrepreneurship: 100 percent

- Entrepreneurship courses at ASU: 110

- ASU cash awards to student entrepreneurship ventures and projects: $1.5M

- Applications to university-sponsored venture competitions since 2007: 1,439

- Entrepreneurs receiving training services from ASU: 837

- Companies partnering with ASU in entrepreneurship efforts: 60+

Figure 6: ASU Entrepreneurship Indicators (2002-2010)
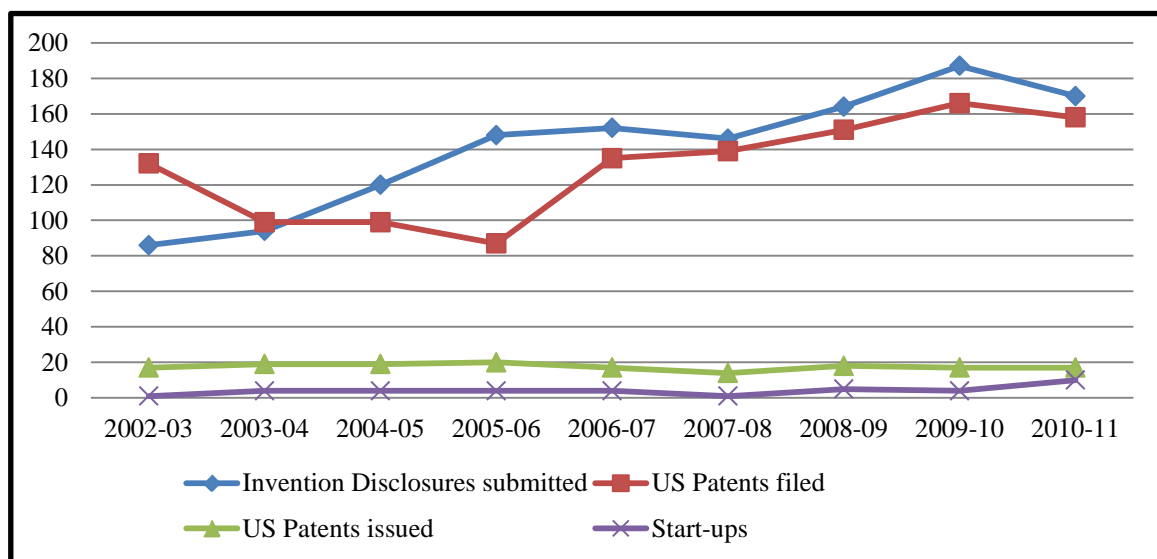
Source: ASU Office of the President

Nearly every interview that discussed ASU's efforts in entrepreneurship clearly highlighted the many opportunities and the focus of the university to instill this value pervasively into its culture. In addition to the claims of the interviewers, the artifacts such as SkySong, the Innovation Advancement Program, entrepreneurial awards (Edson, the Innovation Challenge, etc.), a certificate program (Certificate in Knowledge Entrepreneurship and Innovation) and ASU being the recipient of and recognized as an institution focused on entrepreneurship as part of the culture by the Kauffman Foundation, an outside entity, all support the assertion ASU does indeed value entrepreneurship. There have been benefits to the university as well. One student shared that the University is now "branded" as one of the best entrepreneurial universities in America. However, as one staff member points out, there is more to be accomplished. "I think we've made great strides in [entrepreneurship], but it would be nice to see even more students excited about it and involved in some way." (personal communication,

83

May 17, 2011) This same student thought the following enhancement would be helpful offered the following:

> Obviously, having a better support network, better mentors, and so forth would help. You know, entrepreneurs—it is one of those things—if you are a successful entrepreneur, you probably have a lot of money, so, you know, teaching is not something that you need to do anymore. So figuring out a way to attract those mentors that literally are invaluable to a university—you just cannot pay them enough, and that would not be why they do it. But figuring out ways to attract those people to ASU and really give *them* the control. Let *them* lead the programs. That would be something I would do different. (personal communication, May 17, 2011)

It is apparent that those interviewed feel strongly that the Design Aspiration of Value Entrepreneurship is firmly embedded in ASU's culture. Based on the uniformity of opinion given by the respondents and the various artifacts discovered, ASU is at least in a much more entrepreneurial position than it was prior to the advent of the "New American University." In the section on outcomes below, additional artifacts and data points are provided.

<center>Fuse Intellectual Disciplines</center>

Dr. Crow described the fusion of intellectual disciplines he expected in his inaugural address.

> Programs that involve multiple departments and schools that bring together scholars from different disciplines, have unique strengths. In order to overcome the limitations inherent in traditional scholarship, I

would like to see ASU undertake strategic recombinations of complementary academic units to create programs that both maximize core strengths and facilitate the creation of new knowledge. (Crow, 2002, p. 26)

Over the past several years, this idea has taken root at ASU. From Dr. Crow's initial description where he called for the advance of knowledge in the face of the rapid changes that are confronting society from many directions, we learn that his desire is to build an institution with its own unique strengths.

Others views of what fused intellectual disciplines meant largely aligned with this initial vision. For example, one professor shared,

What we want is for someone not to be stuck in biology and only deal with biologists, but we want them to be able to deal with chemical engineers one day, and then go down to the philosophy department the next day, and you know—not fusing anything, but almost eliminating disciplines from a structured level so you can go across and deal with whoever. (personal communication, May 17, 2011)

Another professor described the attitude developed throughout ASU departments and shared another way the idea of fused disciplines benefits ASU.

Let's go out and let's fund ourselves with grants and get faculty from across disciplines on these grant proposals and actually have them not just in name but do work on the grant proposal, and let's try and solve this problem from a multi-disciplinary approach. (personal communication, May 17, 2011)

He continues, "they might be sitting with faculty or students from various groups across the university and getting opportunities they wouldn't otherwise have." It appears there are many benefits for those involved in the fusing of disciplines. The university's statement that it "embraces complexity" (Arizona State University, 2010) is at least partially embodied in this aspiration. An example of "why" was shared by a fused center's director.

> It's really about saying, 'Here's a really difficult problem that we're facing in Arizona or the world or wherever and recognizing that one discipline's not going to solve that. And rather than use a sort of serial process where, we go from science, and then we hand it off to engineering, etcetera . . . we can group all those folks together, including economics and financial folks and work on solving the problem together. (personal communication, May 17, 2011)

Dr. Crow also had some background in the combining of disciplines to create a new center. While he was at Columbia, he was the founder of the Consortium for Science, Policy and Outcomes.

There have been many schools, centers, and institutes created at ASU in the push to develop and live this Design Aspiration. An incomplete list would include: the BEYOND center (science and philosophy); School of Arts, Media & Engineering (AME) Origins Project (cuts across every school and college); Biodesign Institute (healthcare, sustainability, and security); School of Sustainability; School of Family and Social Dynamics; School of Social Transformation; Center for Law, Science and Innovation; School of Life Sciences and the Center for Religion and Conflicts. Formation of these

new schools, centers, and institutes prompted the question of what was removed or lost from the institution. One director thought little was lost.

> I do not see that much that is like, 'Oh, we did away with this because we have that.' We still have a department of chemistry and we still have a department of biology, even though many of those folks work in bio-design. You know, I think we have done it more as centers and programs than we have by saying, 'Okay, we're really eliminating all real silos.' (personal communication, May 17, 2011)

The success of fusing at least one of the programs was recently realized when Quacquarelli Symonds (QS) ranked the previously unranked ASU School of Life Sciences as one of the top 25 research institutions in the world. The changes made in the formation of the School of Life Sciences were not only in merging various disciplines, but also in modifying the teaching style to be more in line with the real world.

> ASU's School of Life Sciences was the first academic unit restructured at ASU to fully reflect the integrated, interdisciplinary vision of President Crow's New American University. The strategic merger of three separate life science departments and a group of philosophers and historians of biology to form one cohesive, more flexible biological sciences collective has attracted top-ranked job candidates. Tenure-track hires in biological sciences increased 25 percent between 2003 and 2011, and included established international experts, as well as rising stars from emerging fields, such as bioeconomics, sustainability, bioinformatics, and adaptive systems. In turn, the boost in world-class faculty, focus on teaching

science as it is practiced, and promotion of strong undergraduate research experiences, has drawn an increasingly diverse undergraduate and graduate student base. Since 2003, enrollment in ASU life sciences majors has nearly doubled. (Coulombe, 2011, para. 7)

As was found in Value Entrepreneurship, the words themselves offer various interpretations. Dr. Crow in his inaugural address used the terms interdisciplinary, multi-disciplinary, and trans-disciplinary when describing the efforts in creating this intellectual fusion. Thanassis Rikakis, Director of the AME program, offered clarification on the differences between the idea of inter-disciplinary and trans-disciplinary study in relationship to actual programs operating director. The approach described by Dr. Rikakis states that these areas start by defining the problem and the social impact of the problem. "Then you say, 'Ok, who do I need on board to make this happen?'" In describing the efforts at AME to improve the rehabilitation for stroke victims through a mixed reality system, he shares that it combines several disciplines: engineering, art, and science. Examining the problem from these various vantage points, one would expect that,

> …this is an inter-disciplinary problem – that's the mistake. Inter-disciplinary problem thinking…all it takes is knowledge from here, knowledge from here, and knowledge from here to solve the problem. But you actually realize that the knowledge on that problem goes beyond the disciplines…this is where it becomes trans-disciplinary – you can use the knowledge of those disciplines, but you cannot apply the principles or processes of those disciplines, because if you apply them, you're not going

to solve the problem. (T. Rikakis, personal communication, May 16, 2011)

He explained that in these complex problem areas, you often cannot use the approach of a particular discipline – new approaches using the knowledge from each of the disciplines must be created to solve the problem. When the problem is of the type that requires this – it is truly trans-disciplinary as it goes beyond the expertise of the individual areas of expertise and requires a new approach or process to be created.

Trying to create an education program out of many disciplines also presents some difficulty. Dr. Rikakis explained, "First of all, we are going to solve this as a research problem and then secondly, we would then say, 'OK, how does it now become an education curriculum?" How do you compare the expertise of someone coming from a biological background with someone coming from a computer background and someone coming from an art background? All are participants in the same program, but have had various prior coursework in their related disciplines. Dr. Rikakis further explains that they have overcome this by "developing a degree based on proficiencies." "We came up with a list of 20 proficiencies. We said these are the 20 key proficiencies that people working in the area of digital culture actually, you know, as a team possess." (T. Rikakis, personal communication, May 16, 2011) The various participants need to show that they possess the requisite proficiencies regardless of how they obtained them.

So, I could go to a 300-level course that requires 300-level knowledge of visualization, and I might have gained this proficiency through an art course and somebody else has gotten it through a computer-science course

and somebody else has gotten from a sociology course. (T. Rikakis,

personal communication, May 16, 2011)

As a result of this undertaking over eight years with various adaptations along the way,

AME now offers a bachelor of arts in digital culture that is based on proficiencies not just

a specific course curriculum.

There were several challenges described by those interviewed associated with

fusing intellectual disciplines beyond creating new degree programs or solving language

interpretation issues. Rick Fabes described his experience in combining two formerly

separate schools.

The most prominent role that I have played, I believe—is as director of

this inter-disciplinary/trans-disciplinary new school: merging the units,

forming this new entity, bringing faculty, programs, students on board

with what we're trying to do and literally from scratch trying to put

together a new unit that isn't just trading one ivory tower for another. (R.

Fabes, personal communication, May 20, 2011)

He continues by sharing some of the initial challenges of being one of the first at ASU to

be in charge of merging two organizations.

How do we manage our students? How do we organize faculty? How do

we present ourselves to those who are not part of it? But it's also things

like, where do you go to get envelopes? Where is the stationary?

Merging staff was a big challenge that had not been well thought out

before. We thought about the academic side of things, we thought about

the faculty, we thought about how intellectual components might have to

change and work, but we really had not stopped to think about the fact that staff were coming from different cultures and different alliances and allegiances. How is that going to be merged and combined and put together? (R. Fabes, personal communication, May 20, 2011)

A concern faced in fusing the disciplines described by an executive director of one of the fused centers was "there can be enough focus on programs and centers that, if they're successful, they become the new silos." Additionally, he shared,

I think at times you can't always eliminate the silos, because I think you confuse students, you know. If I was a student, and you just handed me a blank program of study and said take whatever you want, I mean what would students do? Especially at the undergrad level. (personal communication, May 17, 2011)

In describing some of the challenges in initially striving to gain approval for fusing some of these disciplines, a former Faculty Senate President shared the following experience.

Old-timers that were not affected by this [fusing of intellectual disciplines], would state 'It's impossible to have a thing called a university, if you don't have a department of Sociology. It's impossible to have,' you know, you keep going down the list of the traditional disciplines. All right, Crow comes along and says, 'Did God say this?' I mean, 'where does this come from?' (personal communication, May 16, 2011)

Therefore, there was resistance to the change from the traditional, historical disciplines. An Associate Dean also expressed this discomfort when she said, "On the multi-disciplinary, I think the faculty has been less comfortable. You know, we are still pretty traditional by and large, so, that piece of change…it's was not always welcome—it's tough for some, but I think community-wise we've done very well with it." (personal communication, May 18, 2011) A program director described some difficulties with ASU's geography and having four campuses and its impact on fusing disciplines. "…having people in multiple campuses can be tough to foster this kind of thing." (personal communication, May 17, 2011) Fusing disciplines on one campus while having the core discipline housed on another can present some logistical issues.

Upon exploring the role of the Faculty Senate in these changes, various insights were shared by the respondents. At one point in the development of the "New American University" there was a Faculty Senate at each of the four campuses that had a loose confederation, yet the programs were being implemented University wide. In addition, some schools are spread across multiple campuses causing confusion as to which of the Senate bodies was representing that school. With the change in faculty over the past decade, many of the new faculty coming to ASU have "a different set of expectations than us old-timers do which is going to create a somewhat different environment" shared one former Faculty Senate President (personal communication, May 16, 2011). One professor shared the following when asked about the University Senate's response to the early changes proposed by Dr. Crow.

They [the administration] were able to mobilize with some help. They were able to mobilize enough faculty support in the senate to make it

possible for them to go and do what they did. Of the five reorganizations that occurred—major, major reorganizations—they won in the Senate. Four of [the reorganizations] won in the Senate, one did not, and that was a little revolution. At that point, you know, if President Crow has declared the sun is going to rise tomorrow. 'Do you agree or disagree?' The senate would have disagreed at that point, but nonetheless, that did not stop it from happening. (personal communication, May 16, 2011)

Apparently, there were some members of the faculty dissatisfied with the changes. The Faculty Senate was organizationally in flux, which also potentially facilitated the changes moving forward. This same Faculty Senate President explained. "It has been lucky I suppose, or disastrous, that we [the Faculty Senate] have been in a state of flux ourselves so as a consequence, we can't come out as the unified union and say, 'No way!' or, 'We're not going there.'" Another former Faculty Senate President shared, "Maybe it is the age of the institution. The bureaucracy here is not as established as some other places. So, you know, even the Faculty Senate, I think, sometimes is not as strong and entrenched and that's both good and bad." (personal communication, May 18, 2011) Moreover, it was felt by one former Faculty Senate President that there have been consequences among their peers. "The faculty has gone along, and the faculty leadership has gone along at some cost to ourselves. We've been taken to task for being viewed as a collaborator." (personal communication, May 16, 2011)

On the positive side of this Aspiration, it apparently contributed to the solution of several issues the university faced and had various other forward moving outcomes. ASU has been a leader in a few areas because of the fused discipline approach to solving

problems. The Biodesign Institute and the School of Sustainability are highlighted as best in class globally in the press (Arizona State University, 2011). One of the goals of the "New American University" is to make an impact and as one professor shared, "it's important to merge disciplines in order to be able to ask and answer the really big, important questions in our society." (personal communication, May 20, 2011)

There are several positive financial aspects of these fused disciplines as well. According to one professor, when looking to gain support from corporations it is an environment with which they are familiar.

> Industry doesn't have their engineers never talk to their legal, never talk to their finance—they all work on cross-disciplinary teams. And so, I think when the university says here's what we're doing with something like bio-design for example. You know, industry goes, 'Yeah, that's the way we do it.' and so they're comfortable so we've had some success working with industry partners as well. (personal communication, May 17, 2011)

In addition to corporate partners, grant opportunities seem to have increased as well, states the same professor.

> [Fused Intellectual Disciplines] gives us better grant opportunities just because faculty are used to working with each other across silos. There is not as much skepticism about having a philosopher on a nanotechnology type of grant to talk about, you know, the philosophy and maybe the ethics of different things. (personal communication, May 17, 2011)

With the ASU budget cut by around $200 million dollars over the past few years, (Arizona State University, 2009) one administrator commented that fusing disciplines

"has helped a lot as far as fiscal impact and the kind of challenges there." (personal communication, May 17, 2011) This was shown in another comment were a professor stated that there is "an economy of scale and size that we are now that allows us to do some things we couldn't afford to do when we were small [separate] units." (personal communication, May 20, 2011) Finally, one staff member highlighted broadening exposure to various disciplines for the students. "Innovation Space which has engineering students, design students, and business students all working on projects…it's possible that those students are usually never even exposed to each other in an academic setting, but it really brings them together." (personal communication, May 16, 2011)

Additional evidence found which supports or detracts from this Design Aspiration follows. The many new schools, centers, and institutes cited above as well as new buildings and additional instructional and research space seemed to corroborate the statements of support that fused intellectual disciplines are occurring. Additionally, fiscal contributions from various organizations supportive of the new areas of study that these fused areas are examining seem to indicate from a non-ASU source that something is indeed happening of value here. Lastly, measures for tenure and promotion now considered include whether the individual reviewed has done more inter-disciplinary work than work that was only applicable to one discipline, shared one former Faculty Senate President. (personal communication, May 17, 2011)

<u>Be Socially Embedded</u>

The final Design Aspiration explored deeply was "Be Socially Embedded." Dr. Crow described this aspiration as a need for the structuring of the academic programs such that they not only advance knowledge, but also directly serve the needs of the

people in Arizona, the United States, and the world. He used the poor schools in the Phoenix as one example of how ASU should be leading in solving problems. Dr. Crow shared two general ideas in his speech. First,

> ASU must be a university in which scholars consider the impact—the transformational effect—of their work on society. ASU must be a community of scholars—scientists, engineers, philosophers, artists, poets, historians—concerned with the impact of their work, giving thought to its possible role in a better society. We must integrate the advancement of knowledge with the transformation of society.

Second,

> The University is a social incubator. We must engage the society evolving before our eyes. We must find new ways to embrace difference, and move ahead of social and intellectual currents. We must think through new ways to govern, and promote evolution in democracy and all our institutions. We must foster new conceptions in the arts and all spheres of culture, and all these things must be done in an environment of openness and free discourse. (Crow, 2002, p. 29)

While these aspirational goals are part of the original Design Imperative, the current website on the New American University has summarized and simplified these initial proclamations to the following. "ASU strengthens communities by contributing to community dialogue and responding to communities' needs. We provide an education that's inclusive rather than exclusive. Our students engage in the world around them (Arizona State University, 2010)."

The investigation provided the several opinions that ASU is more Socially Embedded in several ways. After a detailed account of a few examples is given, a summary of several other activities is described. Following these examples, some of the struggles ASU faced in striving for this Design Aspiration are reviewed as well as benefits that have been seen. Finally, various other supporting evidences discovered will be shared.

There were a couple of programs shared that are categorized under the heading of raising local ability. The first of these discussed above under fused disciplines is the Innovation Advancement Program. This program works with local businesses and entrepreneurs to assist them with some basic business needs like legal and business services for the cost of pizza money. Another initiative that fits in this category is the internship program for English majors and writing candidates. This program developed by Ruby Macksoud embodies several of the aspects that are inherent to the "New American University." This program has English students serving internships to the local businesses where workers may not have strong capabilities in English. These students go to the various workplaces and teach English and writing skills. The program has been very popular not only with the local businesses, but with the students as well according to Ruby Macksoud.

> You know what the best thing is? The students come in here and I say,
> 'Well, you know this is an unpaid internship.' And they say, 'I don't care.
> I want the experience, I want to build my resume, I want to do—these are
> all writing portfolios—I want to create a writing portfolio.' (R.
> Macksoud, personal communication, May 18, 2011)

Not only is this program providing a benefit to the local community, but also it is actually providing the government approximately 40,000 hours of learning services rendered to individuals in the community that the government does not have to fund. In addition to this internship program, Macksoud has begun an "in-reach" program where she has sought out those with a similar lack of English ability that work at ASU in various support services and has begun offering them instruction as well. All of these are provided free of charge.

Another clustering of activities, "improving education" in the community, is taking place at ASU. ASU has formed a strong partnership with Teach for America as well as its own education programs at the Teachers College. These efforts combined provide well over 1000 teachers each year to strive to improve the education system in the K-12 grades. One staff member expressed her pleasure with this focus on solving a problem that plagues most universities instead of just lamenting it.

> I think extending education, the education story into the K-12 pipeline and not just saying, 'Oh, students aren't well prepared in K-12,' but actually implementing things like the ASU charter schools, a partnership with Teach for America, really speaks to that. [ASU is] committed to taking whatever steps are necessary to achieve the goals including unique partnerships and opportunities in order to do that. (personal communication, May 16, 2011)

When Dr. Crow was asked about what were some of the changes that have occurred that were not foreseen when the New American University was initially launched in 2002, he said, "There are lots of things we didn't think about that we're doing – like becoming

engaged in, deep, deep issues about the K-12 pipeline and reconsidering the whole way teachers are produced." (M. Crow, personal communication, May 19, 2011)

The last grouping of activities that will be discussed involves "showing the way" to receive and achieve a higher level of education. ASU has established what they call the American Dream Academy. This effort reaches out to parents in the Greater Phoenix area and provides them courses that will teach them how to help their children achieve their maximum academic potential. These services too are free. In the five years since the program began, the program has graduated over 16,000 parents and served over 40,000 students through its courses and workshops. Other efforts also fall into this grouping. Ruby Macksoud shares the following example.

> I think one of the ideas of the social embeddedness is we go out into the community, and we work with and we make those connections with those organizations, but what is really nice is when departments like the English department can bring those people onto campus and welcome them here— in this world. Here we can show them, 'Look, there's no magic here. You just study hard, get good grades, get into the university and you have access to this just like everybody else.' (R. Macksoud, personal communication, May 18, 2011)

There are several other community outreach examples that exist at ASU. Local partnerships with community members have grown according to one faculty member. "When I first started at ASU, there weren't a lot of community partners, and I wasn't seeing ASU represented in different ways in the community, and I think that what has changed." (personal communication, May 18, 2011) The ASU Community Connect

website contains hundreds of community outreach efforts that serve the Greater Phoenix area with over 1000 outreach opportunities to get involved in.

ASU was selected to join the Ashoka Changemaker Campus Consortium based on its commitment to advancing the field of social entrepreneurship education (10 institutions were selected nationally). One staff member suggested that other universities that participate in such programs like Ashoka might struggle because their campus leaders do not have the ear of the Office of the President – their institution's goals are not as directly aligned as they are here at ASU, she explained. Ruby Macksoud describes another example of the struggles overcome at ASU.

> At ASU I feel very well-supported in my department. I have worked at other universities, and in other places, if I have had a crazy idea, like, 'Hey, why don't we offer a free English class for ASU workers?' If I would have had that idea at another university that I worked at, it would not have gone anywhere. It would just have been an idea, and people would have said, 'Hey, that's a great social, you know, embeddedness or social awareness type idea, but you know what, I don't think it's going to go anywhere right now, because we just don't have the funding or we can't free you up from teaching to do this.' Whereas, here, it was like, 'Great, you know, we're going to free you up from teaching, so you can focus on this.' Suddenly, I had to do something with my idea. (R. Macksoud, personal communication, May 18, 2011)

One improvement opportunity to be even more "Socially Embedded" was shared by a student.

You know, bringing in the community—local small businesses or larger businesses—to tap the talent that is at a university would be a great benefit. That is still very much an unsolved problem, and it is a very hard problem to solve in such a large university. [If it can be solved] students, you know, can get that opportunity for work experience with businesses, and they can get some cheap or free labor. You know, there is a huge opportunity there that I do not think we are doing a very good job at right now. (personal communication, May 17, 2011)

As these efforts to "Be Socially Embedded" have taken place, there appear to have been many benefits to those involved. "The benefits to ASU have been, for example, greater exposure in the community. Giving [ASU] a face by approaching communities and organizations and helping them to see that ASU isn't just like a faceless institution, but there to make a difference," said one interview participant. (personal communication, May 18, 2011) When the University wanted to open its Downtown Campus, the community rallied to support the effort, an apparent supportive gesture of belief that ASU is desirous to be part of the solution to the community issues. These efforts help the students as well shares one teacher. "We're concerned about how you're [ASU students] going to get out and what you're going to do after—post-ASU. So, we want you to see that we're making these connections in the community for you, so that you can go out and you can utilize these connections." (personal communication, May 18, 2011) The community has benefited from various programs including: assisting distressed homeowners with legal advice; developing philanthropy and nonprofit innovation; assisting with public schools; and helping with health care. Other artifacts

that demonstrate activity and change to adopt this "Be Socially Embedded" Design Aspiration include ASU receiving the Carnegie Classification on Community Engagement in curricular engagement and outreach and partnerships as well as the Ashoka selection.

Describing how interactions with the community have changed in the engineering department, one professor shared, "It used to be that all we did—at least in engineering—all we did was talk to corporations and because they had money, and that's all changed." (personal communication, May 16, 2011) Another professor shared how the priorities of ASU have changed over the years since the adoption of the "New American University." "You know research and publication and teaching really drives what we're doing. But the idea that we serve just wasn't given much value and that's changed. I think that has changed dramatically." (personal communication, May 16, 2011) A program director shared that impact in the community is happening. "I can see very deep connections between the initiatives that the university has put forth, and the impact it does have on the community, and I see that at various levels." (personal communication, May 18, 2011)

Another perspective shared by a staff member was that of ASU being committed to becoming an access institution alone provides evidence that the University is committed to being socially embedded.

An institution committing to grant large access to the people of its state is an example of its commitment to embed itself in communities. In order to increase access to its students, the university needs to change the way that it is structured so that those students not only can afford to come with programs like the Obama Scholarship Program, but also have the skills

required to start and then succeed through their freshman year. So that's why need to work with K-12 schools and again embed ourselves in those communities. (personal communication, May 17, 2011)

Finally, there is optimism at the idea of solving Arizona's problems as seen in one student's comment. "Socially embedded – I think this is something we've gotten pretty good at. It is a state university—we have decided that, yeah, this is something we want to do. We're going to solve Arizona's problems." (personal communication, May 17, 2011)

The interview participants are in good agreement that the institution is engaging in more activities that align with the Design Aspiration of "Be Socially Embedded." There seem to be ample evidences that support this as well. The difficulty of not being able to measure quantitatively an institution's degree of embeddedness opens the opportunity for criticism of ASU's efforts to exist.

<p align="center">Interconnections between Design Aspirations</p>

While examining the various Design Aspirations, it became clear that each of the eight aspirations do not stand alone. There is a great deal of interconnectedness between these aspirations. The symbiotic nature of the three focused on, Entrepreneurship, Fused Disciplines, and Social Embeddedness, was clear. In many of the ventures described above all three aspirations were utilized or being practiced. For example, In the Innovation Advancement Program, two or three disciplines are fused (law, business and sometimes engineering) to help make a difference by being embedded in the community (helping small businesses) and those helped are often entrepreneurs themselves, but the program is continually entrepreneuring new ways to help. As explained by Dr. Rikakis,

"You come to see fusing intellectual disciplines and transforming society and doing embedded research, they're all totally connected and, in the end, you're focusing on how you get the stroke survivor to move better." (T. Rikakis, personal communication, May 16, 2011)

Beyond just the three aspirations focused on, many of the Design Aspirations feed into one another. One staff member shared the following similar opinion. "To me, social embeddedness is related to two other design aspirations which is "leverage our place" and "transform society," so why be social embedded? In my mind, the answer to that is because ultimately you want to transform society." (personal communication, May 17, 2011) A similar comment shared by a staff member stated, "I kind of blur the line sometimes between social embeddedness and entrepreneurship and then you marry those two and have social entrepreneurship." (personal communication, May 17, 2011)

There are several overlaps between these aspirations. Conducting Use-Inspired Research very often will lead to an entrepreneurial idea. If that use-inspired research deals with an Arizona need reflected globally, two more aspirations are connected. Continuing this pattern, it is easily imagined that a multi-disciplinary approach is might be more effective and if the solution will help the community the program is Socially Embedded. The interconnections between many programs helps to further sustain the importance of all of the Design Aspirations. There were no programs investigated that could not readily fit into at least two of the Design Aspirations.

CHANGES AT ASU

In Kotter's fifth stage for leading change framework, empowering broad-based action, he describes four major obstacles that need to be addressed:

…structures, skills, systems and supervisors…. Another barrier to effective change can be troublesome supervisors. Often these managers have dozens of interrelated habits that add up to a style of management that inhibits change. They may not actively undermine the effort, but they are simply not 'wired' to go along with what the change requires. Often enthusiastic change agents refuse to confront these people. While that approach can work in the early stages of a change initiative, by [this stage] it becomes a real problem. Easy solutions to this problem don't exist. Sometimes managers will concoct elaborate strategies or attempt manipulation to deal with these people. If done skillfully this only slows the process and, if exposed, looks terrible – sleazy, cruel and unfair – and undermines the entire effort. Typically, the best solution is honest dialogue. (Kotter International, 2011, para. 5)

Examination of these four areas: structures, skills, systems, and supervisors are provided in the context of ASU and the "New American University" as shared by the interviewees.

Structures

Several examples shared during the interviews describe how structures changed as part of the "New American University." Merging of schools as mentioned above, the creation of several new buildings, along with the improvement of millions of square feet of existing space are evidences of structural changes. One long time professor related the

following experience as another example of a structural change regarding the promotion process. He shared that when Michael Crow came became the President of ASU the then three campuses acted as very separate organizations.

> Crow comes in and each campus has a provost: a provost at West Campus, a provost at East, and one at Tempe. The title of those people at that time was provost and CEO of the West Campus, etc. Michael Crow meets with this guy and asks, 'Who are you?' The provost answers, 'I'm the provost and chief executive officer at ASU East,' and Crow says, 'No, you're not.' The first thing he does is strip those people of the title CEO. He is the only CEO at ASU. It is at this point Crow says, 'We're going to have one university here, we're not going to have three different universities.' This was fine with East, but West blew up. (personal communication, May 16, 2011)

The administrative structure according to one faculty member also changed significantly. According to her, before Dr. Crow became President of the university, "We had three vice presidents; we recruited something like 15 or 17 VPs. I thought, 'Wow, the umbrella just went really big,' and you saw lines like assistant VPs develop." (personal communication, May 18, 2011) Now there are at least eleven full vice presidents, so the administrative level increased. According to the Goldwater Institute, "the number of full-time administrators per 100 students increased 94.0 percent between 1993 and 2007…the employment of teachers and researchers actually declined by 2.4 percent… (Greene, 2010, para. 4)." The major structural change made and referred to several times above is the merging of various departments into multi or inter-disciplinary

departments. The list of disestablished academic units as well as those created and the various new undergraduate and graduate degree programs is in Appendix E. When some units were disestablished, often they were recombined into other units. Notably the Teacher's College has undergone several restructuring efforts and exists today as the Mary Lou Fulton Teachers College. The merging of various departments at a minimum reduced the staff required, but also changed the structure to allow for more of the trans-disciplinary fusing of disciplines to happen as part of the vision of the New American University. Lastly, one other structural change was the creation of the Office for University Initiatives, the engine behind working with the entire university to see that these Design Aspirations take hold.

<u>Skills</u>

Arizona State University in pursuit of the "New American University" has pursued changing the skills of the institution. As shared in the literature review, when business leaders are trying to transform an organization, they often bring in individuals aligned with their vision. The same has apparently occurred with Dr. Crow. Modification of the tenure process to raise the importance of the Design Aspirations is one example according to one former Faculty Senate President. Another shared that when Dr. Crow first arrived.

> At East, in 2002 just after Crow came, we had two candidates going up for
> promotion: one to associate professor and one to full professor. Under the
> old system, they would have been slam-dunks. Utter slam-dunks. There
> was nothing about these people to suggest they were not, by those criteria
> of the way ASU was, okay. They get all the way through the whole chain

of command. They get up to Crow—they have the provost's approval and Crow says, 'No.' this began to happen several places and there was an uproar. (personal communication, May 16, 2011)

A former Faculty Senate President confided, "That was kind of the beginning of some of the faculty issues—that their control over the tenure process seemed to be diminished and attenuated." (personal communication, May 19, 2011) Crow may have modified the requirements for tenure in an effort to ensure higher quality or possibly, to create the opportunity to hire those who were more aligned with his vision. Support for this idea is evident in a director's comment, "I know that getting on grant applications with folks from across the university is really looked at positively [for promotion]." (personal communication, May 17, 2011) This comment speaks to one of the concerns raised by Bolman and Deal under the human resource frame. (Bolman & Deal, 2008, p. 119) The HR frame wants the organization to be an extended family and recommends tailoring the organization to fit the people. It appears that the opposite occurred at ASU, the people needed to adjust to fit this new model for the organization. This new model seems to have appealed to many of the faculty who were interviewed, but several left was a result, too.

Additionally, one professor noted that Crow made modifications to various classifications of staff to allow him more flexibility to manage as needed.

We do not have unions here. [Dr. Crow] tried to get rid of what we called classified staff. You could not get rid of them. If they are a poor worker – it took forever and ever. But, if they were service professionals, that is just a year-to-year contract, which means you can remove them. He took

this large body of [classified] staff and tried to get many to become service

professionals. Up their pay a little, give them a little better title, but you

only hold them to one year, so if you want to get rid of them [you can].

That was a big change. (personal communication, May 18, 2011)

One former Faculty Senate President shared his thoughts on Dr. Crow's approach to key

personnel, "From Dr. Crow's point of view…the deans, for example, deans are crucial

players on the academic side. If the deans aren't committed to [the "New American

University"], why should they be deans?" (personal communication, May 16, 2011)

It appears that in addition to making changes to provide flexibility regarding the

employment of various staff and faculty members, it appears from Table 3 above, Dr.

Crow recruited top-level professors to raise the prestige of the institution. Many of these

new hires, as shared by one program head, received a salary that was more than those

who had been at the University for several years, so that too raised some concerns

specifically among the faculty as expressed by a former Faculty Senate President. "There

was some resentment on the part of faculty who were already there that new faculty were

being brought in at the same time budget cuts were going on, and that these people's

salaries seemed to be just beyond the pale." (personal communication, May 19, 2011)

Systems

The systems utilized in bringing about the changes for the "New American

University" included a large marketing effort to ensure that accomplishments were

widely known. ASU accomplished this by broadcasting the accomplishments of the

university on the university website and various public appearances at conferences and

seminars. There was an expectation that those at ASU should follow the example of Dr.

Crow and get the word out that ASU is changing according to one professor interviewed. One respondent shared that each time Dr. Crow would visit Harvard or some consortium to talk about the New American University – he would come back and let the whole campus know whom he had spoken to and about what. He wanted the faculty to do the same kinds of things. Another systemized change found was in the fulfillment of the Access portion of the New American University vision. As the university provided more access to students, the number of students grew. The population of the university student body has increased by around 25 percent since 2002.

<center>Supervisors</center>

As shared by Kotter above, there can be difficulty when change is required among the supervisors. In terms of the university, this would be the Deans and Administration at a minimum. According to one staff member, "there has been some leadership that has stayed, but there also has been a lot of change in leadership." (personal communication, May 16, 2011) One professor shared that all the deans in the university, each position, have changed at least twice in the past eight or nine years since Dr. Crow arrived. (personal communication, May 17, 2011) This was not only those who were already at the university that experienced change. According that same professor, even people Dr. Crow brought in, if they were not performing to his expectation, would be gone in a year or two. (personal communication, May 17, 2011) A staff member shared the following insight to the role of Dr. Crow's subordinates.

> Something I really admire is that when I arrived here, President Crow
> himself is a strong visionary leader, and I thought at first that it would be
> that he was such a strong leader and that there wouldn't be other strong

people at the university. But what's he's done is he's empowered a lot of

other leaders and other entrepreneurial thinkers, and so the entire

university is actually decentralized. I didn't think you could have strong

leadership and also have a fairly decentralized university. (personal

communication, May 17, 2011)

Apparently, Dr. Crow does not micromanage, but puts creative individuals with the same

vision in place to move the organization forward.

Kotter's sixth stage for leading change involves getting short-term or quick wins.

To ensure success, short term wins must be both visible and unambiguous.

The wins must also be clearly related to the change effort. Such wins

provide evidence that the sacrifices that people are making are paying off.

This increases the sense of urgency and the optimism of those who are

making the effort to change. These wins also serve to reward the change

agents by providing positive feedback that boosts morale and motivation.

The wins also serve the practical purpose of helping to fine tune the vision

and the strategies. The guiding coalition gets important information that

allows them to course-correct. (Kotter International, 2011, para. 3)

Dr. Crow supported this idea when he discussed what he felt was the hardest thing at the

beginning of this journey of change.

The hardest thing to change was overcoming the institution's insecurity

about taking an accelerated path in differentiation. So there was self-

satisfaction—not excessive—but there was the self-satisfaction of, 'Well,

we're okay the way we are. You are going to take us down this path, and

you might fail, and then we'll be worse off.' … [This is overcome by] incremental movement. You say, 'We can't change everything at once— it's not possible—so let's do a few things and see what happens.' We built confidence in the system, built confidence in the staff by getting some things to work. (M. Crow, personal communication, May 19, 2011)

One program director highlighted the difficulty of this short-term or quick win when she said the following, "I think, given any organization, I think it's hard to find people that really embrace speed as a cultural value." (personal communication, May 19, 2011)

Kotter's seventh stage is summarized on his website as "Never Letting Up." By this Kotter shares that the leader trying to affect change should "use increased credibility to change systems, structures and policies that don't fit the vision; hire, promote, and develop employees who can implement the vision; reinvigorate the process with new projects, themes, and change agents." (Kotter International, 2011)

Merging various disciplines has continued as ASU strives to solve the "big problems" facing the world. The list of various combined disciplines shared in the Fuse Intellectual Disciplines section above raised the question of how this affects accreditation. A former Faculty Senate President shared that most of the fusing of disciplines happens in institutes or centers, the schools, or departments still largely exist. There is still a physics department and a philosophy department, the faculty of either may just be working in a trans-disciplinary center. He stated, "We have degrees in sociology and history and stuff like that and that's what's accredited. It's not what you call your department necessarily." (personal communication, May 16, 2011) Dr. Rikakis provided another piece of the explanation, "So you get inter-disciplinary education. We have

concentrations. We have 50 different concentrations. People can do a Ph.D. in psychology or in computer science or in music with a concentration in media." (T. Rikakis, personal communication, May 16, 2011) Dr. Crow shared in a conference that once the purpose is changed and the faculty has bought into the vision, the changes continue without as much direct action from the administration (Crow, 2010). These continued efforts and changes would seem to show that this stage of Kotter's framework is also applicable.

<div align="center">Faculty Impact</div>

From the very first interview conducted the change in the pace and expectation of work at ASU for the faculty was described. This was manifest in several different ways: increased pressure, lack of time, decreased collegiality, and the level of work required. As a predominate theme in the interviews, this section will share some of the more prevalent quotes and concerns regarding the impact on ASU faculty by the changes required at the "New American University." One former Faculty Senate President shared that even though the changes have been tough he felt they were for the better. "Universities are not really quick to change, and so the amount of change that Michael was bringing was rather unsettling to a lot of faculty. Yet it seemed to me that the direction that Michael wanted to move was a very positive one for the university." (personal communication, May 19, 2011)

This Faculty Senate President shared his concerns about having to implement all of these changes at the expense of the faculty. "I thought Michael was on a good path. I thought the idea was probably correct, and I thought it might be attainable except for the

fact that you can't keep demanding more and more of the faculty." (personal communication, May 19, 2011) Another Faculty President shared,

> I tried to remind Michael that the New American University could not be built or should not be built on the backs of the faculty. That is, the faculty should not be asked to make the kind of sacrifices that he might think need to be made or that would be difficult for the faculty to do. Heavier workloads, for example, for no increase in pay, or moving faculty into positions that they didn't want to move into, or eliminating departments, merging departments—doing all the kinds of things that are disruptive to faculty.

He continues,

> In fact, because research had been ratcheted up, in terms of expectations for tenure and promotion, the fact that we need to do more research and yet, at the same time, we have more students and we're going to need to do more teaching. This is where the faculty concern really was. 'How can we do both?' that is what I meant earlier when I was talking about building the "New American University" on the backs of the faculty. (personal communication, May 19, 2011)

There were several comments that shared examples of the faculty just being "too busy" because of increased expectations. "I'll ask a friend if they want to go for coffee. 'Yeah, maybe after this semester's over,' [would be the reply.] Everybody is working like a dog. I am. I am teaching seven classes a week—I mean, I'm really cranking—and I think I've got a lot of company in that regard." (personal communication, May 16,

2011) Another's similar comment from when the changes were first happening, "You were so busy, you couldn't collaborate." (personal communication, May 18, 2011)

Another risk shared was the following, "I do think that an unintended consequence is that there has been so much change that it has worn many people down, even when the change is good. And it's not just how much change, but the pace of change—and we're still going through change." (personal communication, May 20, 2011) One respondent shared a different concern on behalf of faculty not working in the STEM fields.

> I think, at times, they will tell you they feel like they are unwanted and unimportant here. That if you are not in engineering or business or if you're just one of the sort of soft track classic liberal arts that you aren't really viewed as important. I think there could be that risk. (personal communication, May 17, 2011)

Others shared several comments on the collegiality among the faculty, for example: "The downside? ASU is a lot less comfortable a place to be. It used to be that we always took care of our own. If somebody was having a problem, other people would cover for them and take care of them." (personal communication, May 16, 2011) Similarly, raising the concern of lost collegiality, one professor stated, "It seems like there's a little bit less collegiality that occurs outside of the formal structure, because I think everybody is so focused on [what they have to do]. I don't have as many lunches with friends from other parts of campus as I used to." (personal communication, May 16, 2011) One professor also shared that some efforts made recently attempt to create more community among the faculty.

Recently, Mike has mentioned a couple of things to build more community here. And, these things are also designed to help retention stats and things like that: having the faculty more available, more connected to students in various ways. So, [life at ASU] is more fun, it is more serious, it is also more stressful and more dangerous. (personal communication, May 16, 2011)

In spite of these increased pressures and requirements, it appears the faculty has responded to the challenge.

The question is whether faculty as a whole can look after their enlightened self-interest as well as they look at their naked self-interest. That remains to be seen. They really are most resistant to any sort of change at all, no matter what. Generally speaking however, the faculty has acted in its enlightened self-interest. We will see if it can continue. (personal communication, May 16, 2011)

In this last comment, we see that while it has been difficult, at least in the eyes of another long time ASU professor, the change is for the better of both the university and the faculty.

I think it's played out for the better for the university as a whole and, of course, ultimately for the faculty, who remained there anyway. The thing I thought was so impressive about the administration was, when budgets got really tough in those tough economic times, I thought Michael's approach in trying to protect the faculty and to protect the university was just

superior—and far superior to the University of Arizona and Northern

Arizona University. (personal communication, May 19, 2011)

OUTCOMES AND MEASURES

In the previous findings sections, the opinions of those interviewed largely

informed the various areas investigated. This section will review various external

sources for outcomes and evidences of change at ASU because of their pursuit of the

"New American University." Dr. Crow shared a similar comment that ASU is more

concerned with the outcomes of their students than with other input based areas. This is

largely because they take a rankings hit on the input side by being access focused.

(Crow, 2010) Some of the outcomes readily seen are the same ones many other

universities pursue on their path to excellence: new buildings, top faculty, and more and

better students. Facts discovered pertaining to these traditional outcomes are shared

below. The triangulating data described below are available from the University's

website, news articles, or periodicals (ASU Magazine, 2011; Coulombe, 2011; Arizona

State University, 2010; Crow, 2010; Center for Measuring University Performance,

2007). These outcomes and measures are grouped into the following categories:

academics, enrollment, faculty, financial, prestige, research, and students.

Academics

In addition to the quotes cited above which shared the perception of the

interviewees that the quality of students has improved over all, similar comments were

shared that the graduate students that ASU is attracting now is far better as well. The

freshman SAT scores have stayed consistent (V:470-590 Q:480-610) from 2003 through
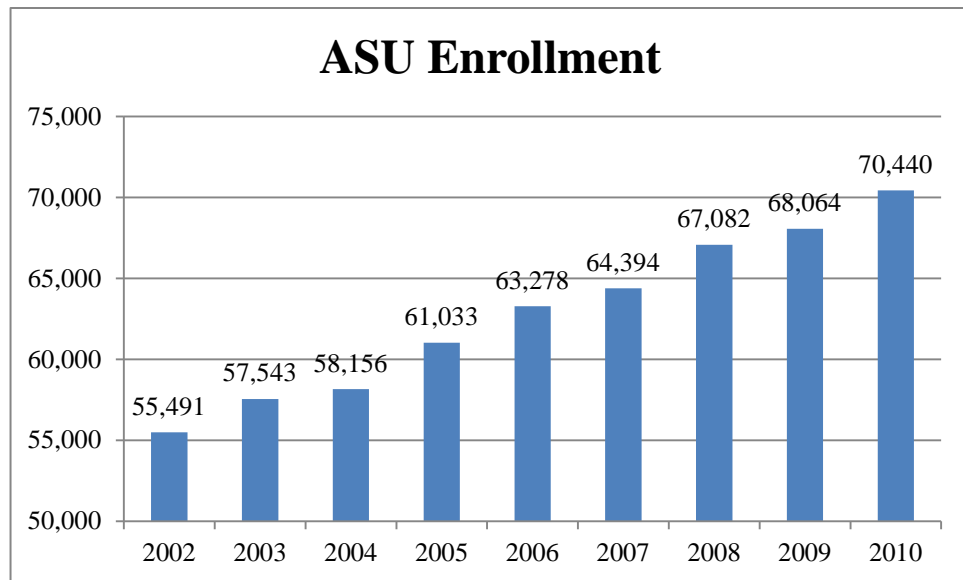
2008. The scores maintaining in spite of a greater percentage of traditionally poorer performing students joining the student body (see Table 7 below) would indicate that an offsetting group of academically higher performing students have also joined ASU. Conversely, the unchanging scores are evidence that no improvement to the incoming student body has occurred. Awards for the Cronkite School of Journalism and various recognitions of excellence for other centers and institutes by external groups do support the argument that an improved academic environment exists.

<div align="center">Enrollment</div>

One of the more frequently publicized stories of the past couple of years has been the growth of ASU's student population, which has grown by nearly 15,000 students over the past eight years. (Figure 7)

In addition to the enrollment growth of around 25%, the minority population of the student body has grown at an even greater pace – nearly doubling in most ethnic groups (see Table 7 below). As the graduation rates of Hispanics lag whites at all levels of selectivity (Kelly, Schneider, & Carey, 2010) this may put an even greater burden on ASU in terms of performance, but would seem to be a strong indicator that ASU is indeed improving Access at the institution.

Figure 7: ASU Enrollment 2002-2010

ASU Enrollment

A bar chart titled "ASU Enrollment" with the y-axis ranging from 50,000 to 75,000 in increments of 5,000, and the x-axis showing years 2002 through 2010. The values are: 2002: 55,491; 2003: 57,543; 2004: 58,156; 2005: 61,033; 2006: 63,278; 2007: 64,394; 2008: 67,082; 2009: 68,064; 2010: 70,440.

Source: The Magazine of Arizona State University. (2011, September). By The Numbers

The fact that a greater portion of the students are coming from minority groups that traditionally perform more poorly on standardized tests would also seem to indicate with the entrance scores remaining unchanged over the past five years, that a good portion of the students coming to ASU now are of higher quality as judged by entrance test scores, in spite of the claim that overall average incoming test scores have continued to improve year over year. (Arizona State University, 2010) An additional factor in demonstrating improved access is the fact that there has been a 117 percent increase in Pell Grant recipients since 2002.

Table 7: ASU Student Diversity 2002-2010

ASU Student Diversity	2002	2010	%Δ
Hispanic students	6,018	11,352	88.6%
Asian-American students	2,535	3,943	55.5%
African-American students	1,768	3,452	95.2%
Other minority students	1,166	2,313	98.4%
Total Minority enrollment	**11,487**	**21,060**	**83.3%**

Source: The Magazine of Arizona State University. (2011, September). By The Numbers

Additional insight into the demographic shift that is happening at ASU is evident in Table 8 below. The percentage of white students at ASU has dropped from 80% in 1990 to 60% in 2011.

Table 8: ASU Student Diversity Breakdown (1990, 2002, 2011)

|	**1990-91**	**2002-03**	**2011-12**
Total Enrollment	**42,952**	**55,491**	**72,254**
American Indian/Alaska Native	1.2%	2.1%	1.8%
Asian	3.0%	4.6%	5.5%
Black/African American	2.4%	3.2%	4.9%
Hispanic/Latino	6.3%	10.8%	16.9%
Native Hawaiian/Pacific Islander	-	-	0.2%
Two or more races	-	-	2.1%
White	80.8%	69.4%	60.6%
International	5.0%	6.4%	6.1%
Unknown	1.3%	3.5%	1.9%

Source: ASU Office of the President

Other enrollment data that are indicative of the improving excellence of the ASU student body are National Scholars, over 800; as well as over 150 new National Scholars

admitted in 2010. The average SAT for students enrolled in the Barrett Honors College at ASU is now 1,314. There are over 3500 of these honors students.

<u>Faculty</u>

As shown in Table 3 above, the number of award winning faculty at ASU has increased. The ability to show that the faculty is award winning generally contributes to the Excellence of the institution. More discussion around this follows in the prestige section below. While there are apparently more high quality faculty at ASU, as mentioned above the class load is ever increasing, a concern described in the faculty comments shared earlier. According to ASU, the number of faculty have increased each year and the percent of non-tenure track faculty has risen over the past several years from 23.7% in 2002 to 28.2% in 2008. The number of tenure-track professors has also risen each year. (Arizona State University, 2010).

Figure 8: Faculty at ASU by Type (1990-2010)
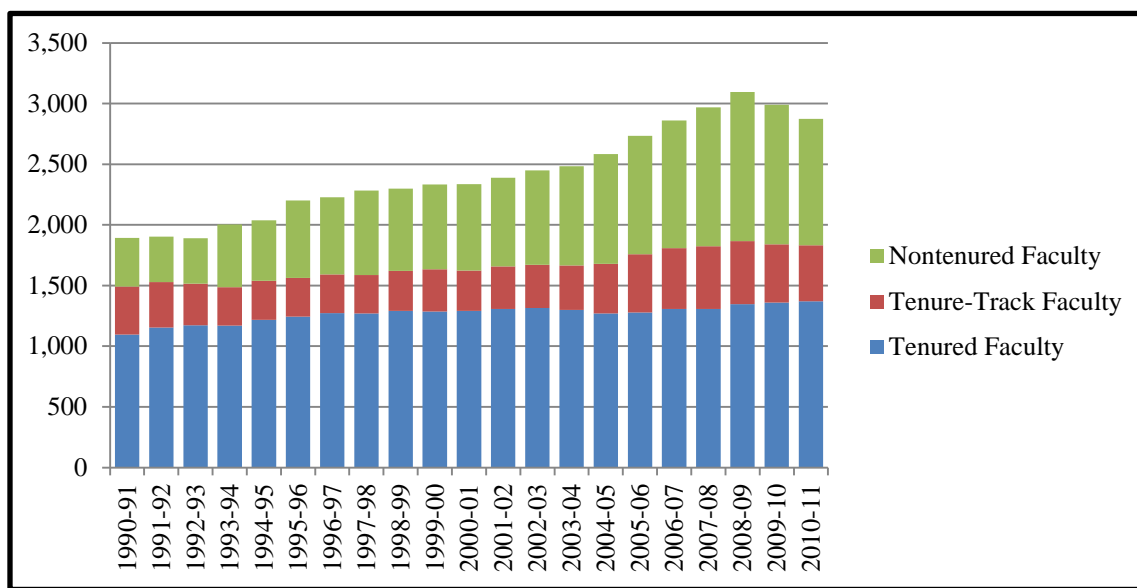
Source: Arizona State University, Office of the President

This is at odds with a policy report described earlier and published by the Goldwater Institute based on data pulled from the Integrated Postsecondary Education Data System (IPEDS) (Greene, 2010) which claims that the number of instructors has actually decreased by 2.4 percent since 1996 at ASU.

Financial

In Dr. Crow's interview, when asked what one piece of advice he would give a new university president that was planning on implementing something like the "New American University" on their campus, Dr. Crow replied they should plan to "have a lot more money, because people will invest in what you are trying to do. You should plan on having a lot more resources." (M. Crow, personal communication, May 19, 2011) Figure 9 below shows the five-year trend of resource finances at ASU. When asked where those resources would come from Dr. Crow's response was that "People will invest in what you are doing. You will become better at what you are doing. You'll retain more students, graduate more students, and more private citizens will invest in what you are achieving." (M. Crow, personal communication, May 19, 2011) In support of his comment that there will be a lot more money, Figure 7 shows that the overall revenue growth has significantly outpace the growth of state subsidies. This is likely even more true as the data set for this table ends just prior to the $200 million cuts imposed by the Arizona legislature since 2008 shown in Figure 10.

Figure 9: ASU Five-year Trend of Revenue
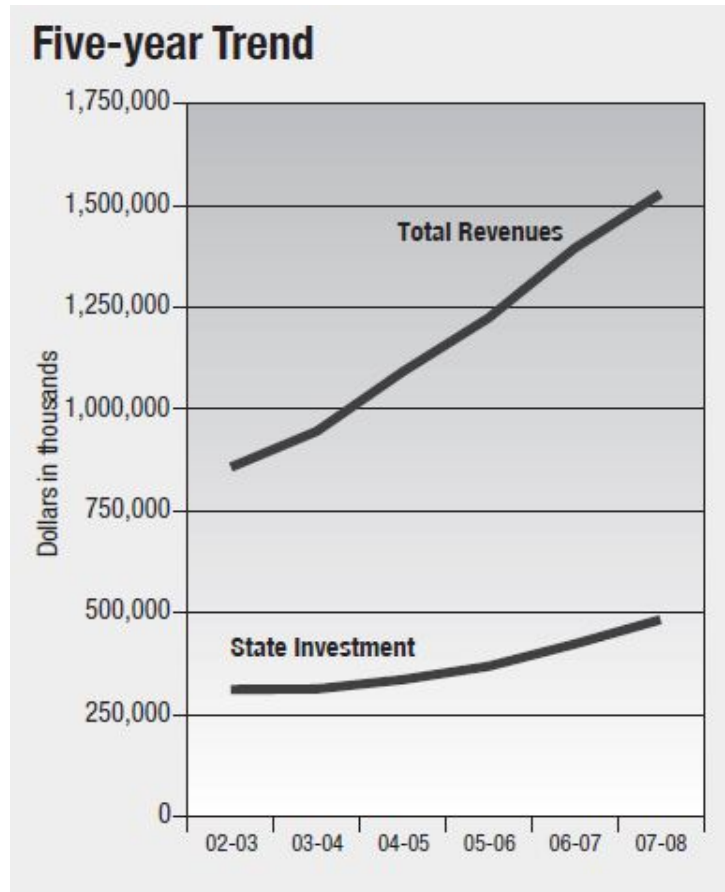
Source: Arizona State University. (2010). Fact Book 2008-09 | Institutional Analysis.

State funding to ASU according to Figure 10 has dropped to levels associated with 1999, when there were nearly 25,000 less students at Arizona State. Figure 8 also shows that in spite of the significant decrease in state subsidies, ASU has been able to continue to grow the total funding for the institution.
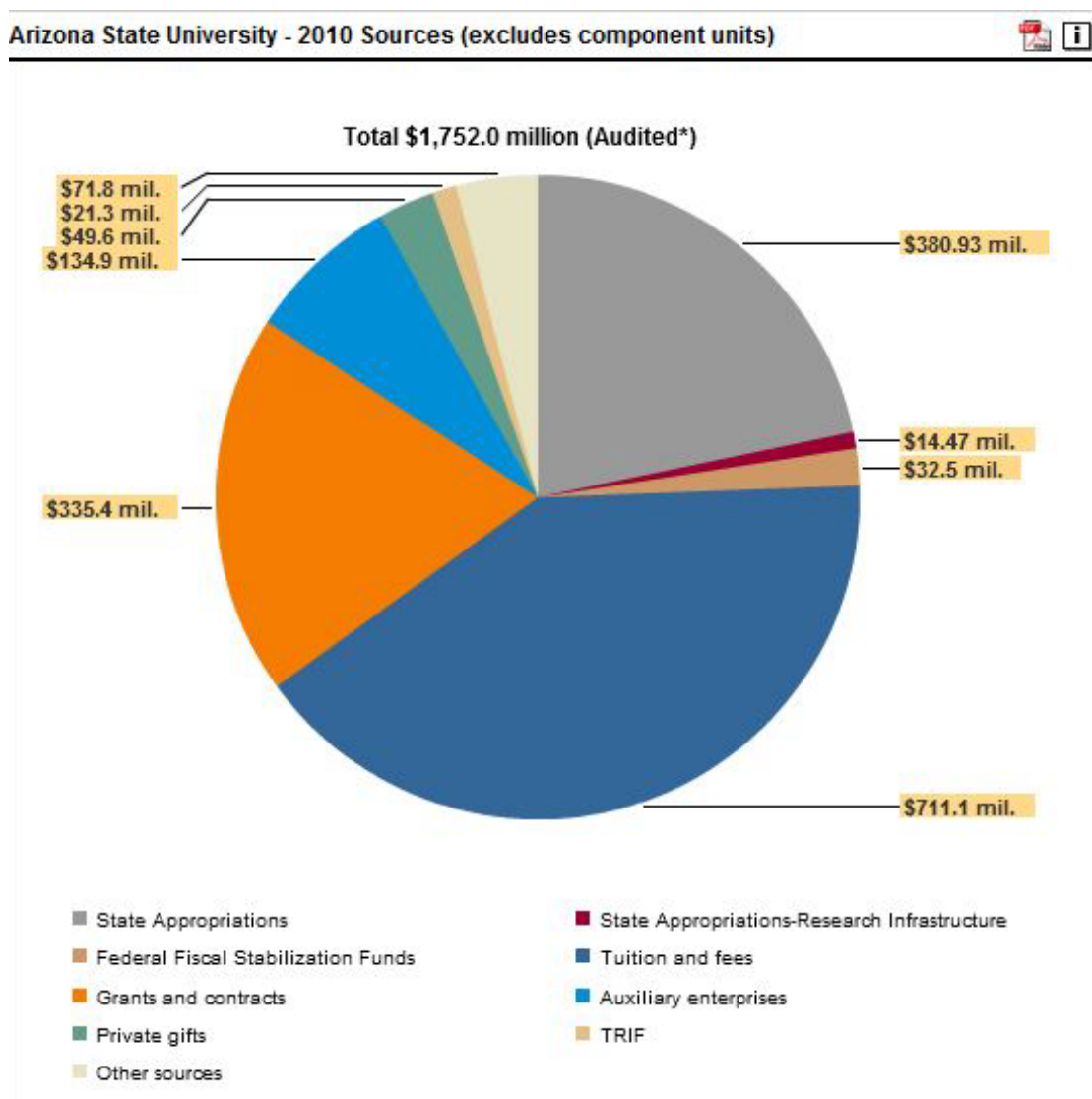
Figure 10: ASU Financial Indicators (1990-2010)
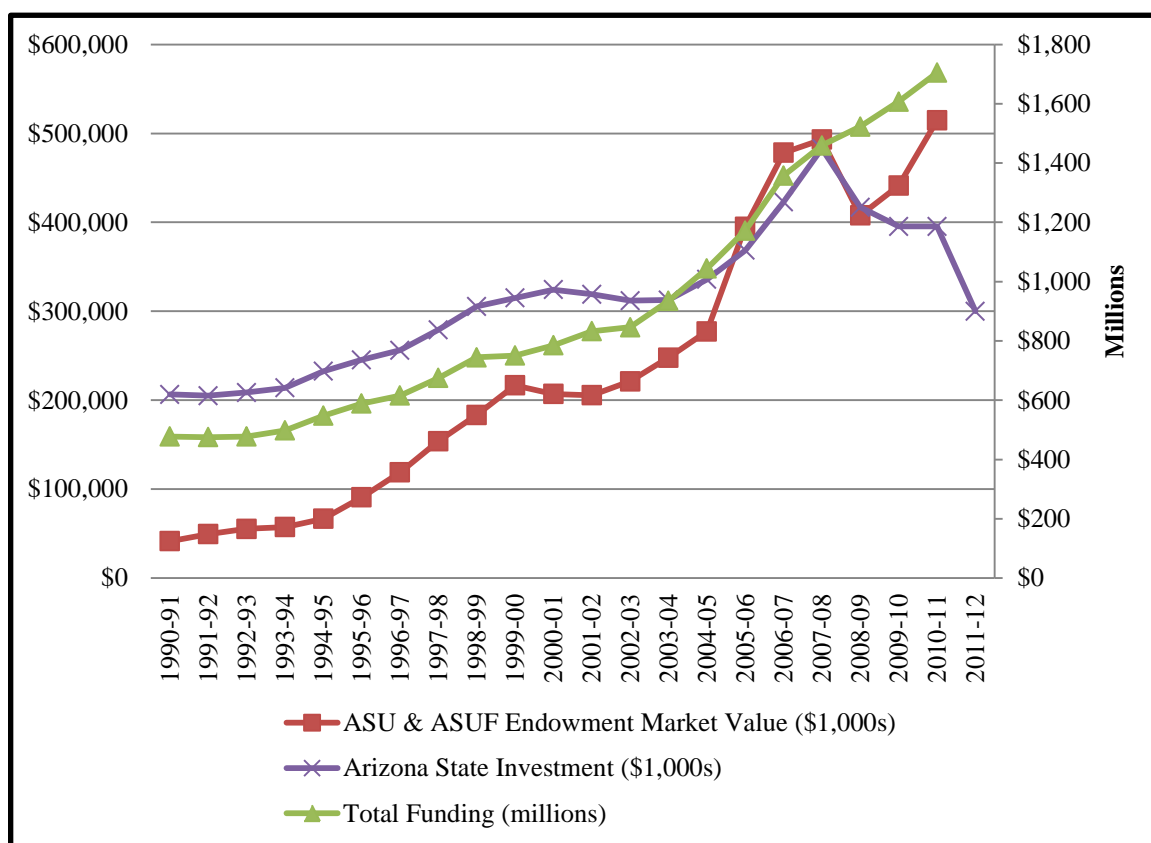
*Source: ASU Office of the President*

Additional breakdowns of where ASU's revenue sources are from as well as how those resources are used are in Figure 11 and 12 below respectively.

Figure 11: ASU 2010 Financial Source Breakdown

Source: 2010 Audited Financials, plus an adjustment to gross up for Tuition and Fees by $144.8M in scholarship allowances

Figure 12: 2010 ASU Financial Uses Breakdown
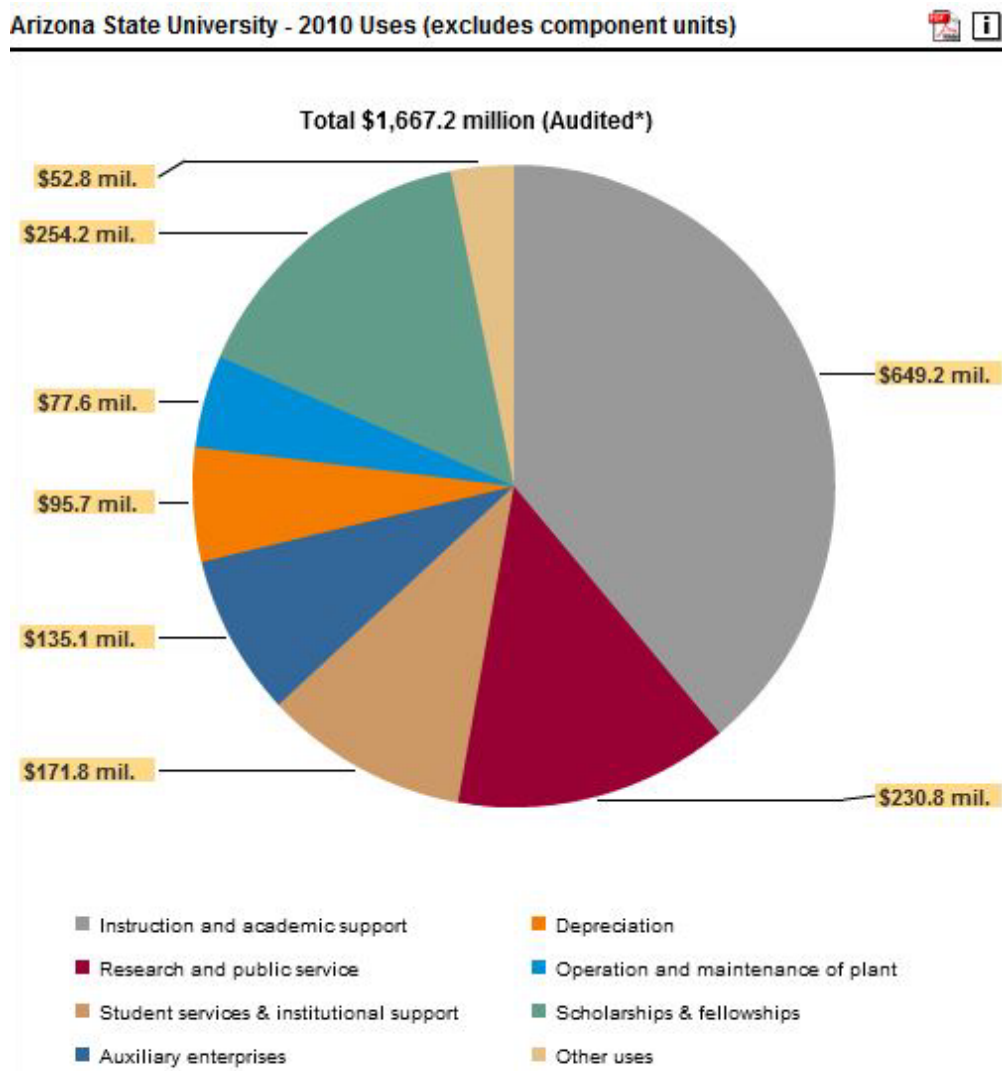
Source: 2010 Audited Financials, plus an adjustment to gross up Student Services by $144.8M in scholarship allowances

When the various interviewees were asked about what the budget was for Value Entrepreneurship or Be Socially Embedded, there was no answer provided. Most often the response was that these things were embedded into everything that went on, so it was

difficult to understand how much was spent on any given Design Aspiration in striving to integrate it into the culture at ASU.

According to Dr. Crow one of the ways that costs have been lowered and contained at ASU is they have eliminated twenty-two academic departments, forty-four academic programs and six functional colleges from 2009-2010. They eliminated all campus-based administration by centralizing all of these functions. (Crow, 2010) Fused Intellectual Disciplines has provided for some efficiency in staffing functions, increased investment from outside the university, and with more students, there has been a significant increase in tuition and fees revenue – all resulting in a better revenue picture. While one interviewee claimed, the University was over-leveraged and on the verge of bankruptcy, no corroborating evidence to support this statement was uncovered.

<u>Prestige</u>

Several ranking systems exist that attempt to measure the education industry, a description of few of these and ASU's placement within them are below. Most of these rankings are relevant to excellence, one that is related to impact is parenthetically noted below. (Arizona State University, 2011)

- The Academic Ranking of World Universities—ranks ASU as one of the top 100 universities in the world

- Wall Street Journal—ranks ASU fifth in the nation for recruiting new hires

- Fulbright Awards—ASU among top schools in number of student awards

- U.S. News and World Report—ASU ranked in the top tier of national universities

- Bloomberg Business Week—ranks ASU's W. P. Carey School among nation's best

- Hearst Journalism Awards—Cronkite students best in the country

- Peace Corps—ASU listed among the top schools for Peace Corps volunteers (impact)

Research

It appears that one of the benefits of focusing on Use-Inspired Research is the financial support that the University has obtained. In 2002, ASU expended $123 million in research expenditures by 2010, the research expenditures had increased to $329 million (ASU Magazine, 2011). According to the National Science Foundation, ASU's R&D expenditures seem to have grown similarly to those of the Top 100 institutions (see Figure 13).
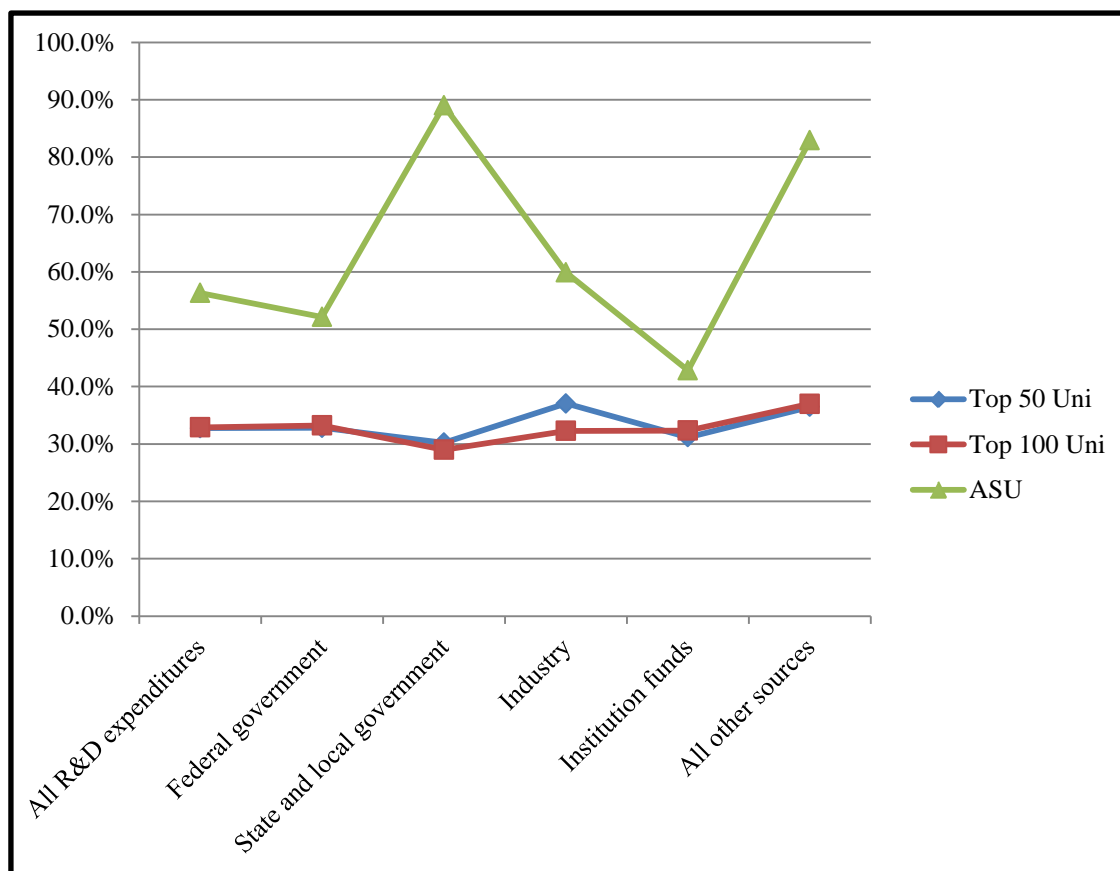
Figure 13: R&D Expenditures at Top 100 Universities by Category (FY2002-2009)
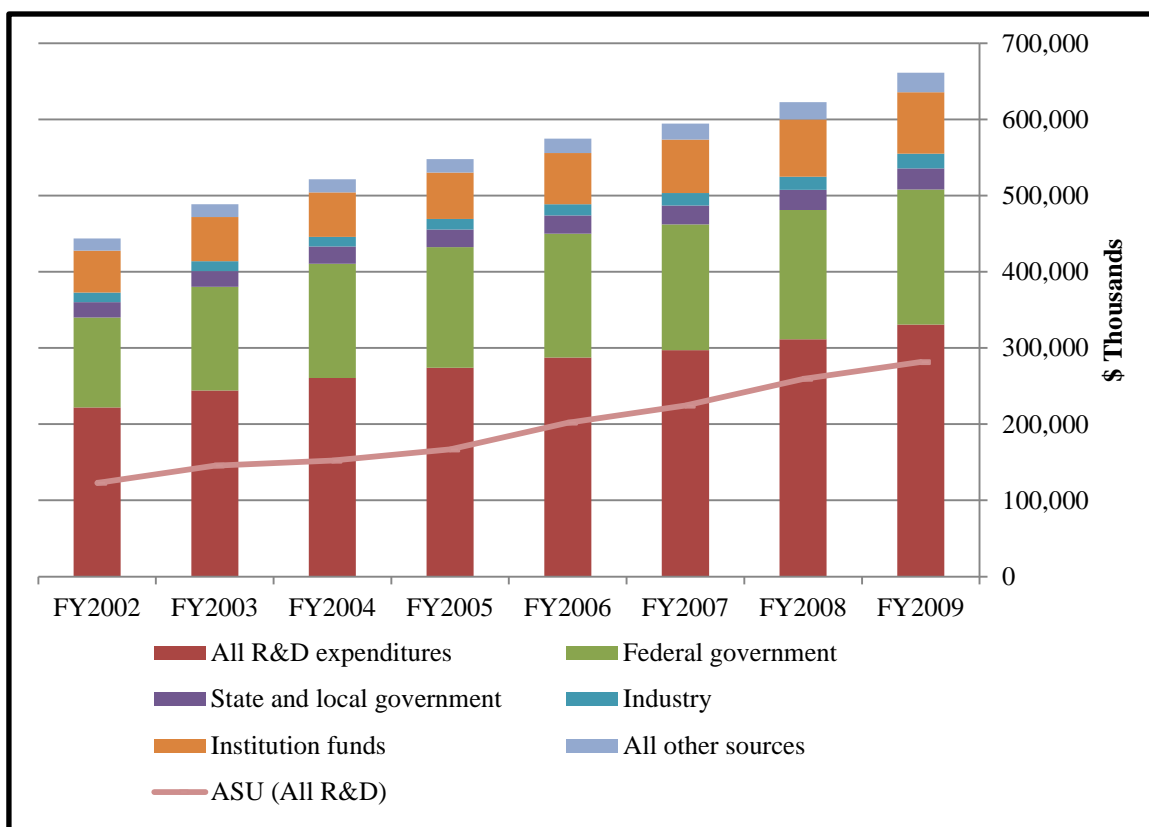
Source: National Science Foundation Academic R&D Expenditures

However, Figure 14 shows that ASU has outpaced both the Top 100 and the Top 50 in terms of their rate of growth in each of the breakdown categories.

Figure 14: ASU R&D Rate of Growth (2002-2009) Compared with Top 100/Top 50

Source: National Science Foundation Academic R&D Expenditures in Public Universities

It is relevant to add that these figures for ASU research are at this level without having a medical school. In reviewing the data on the top universities relative to the research rankings, ASU, which broke into the top 25 in 2008 due to its high number of doctorates, has the lowest ACT/SAT scores of any university in the top 25.

Figure 15: Top Research University and ASU Undergraduate Test Scores Compared
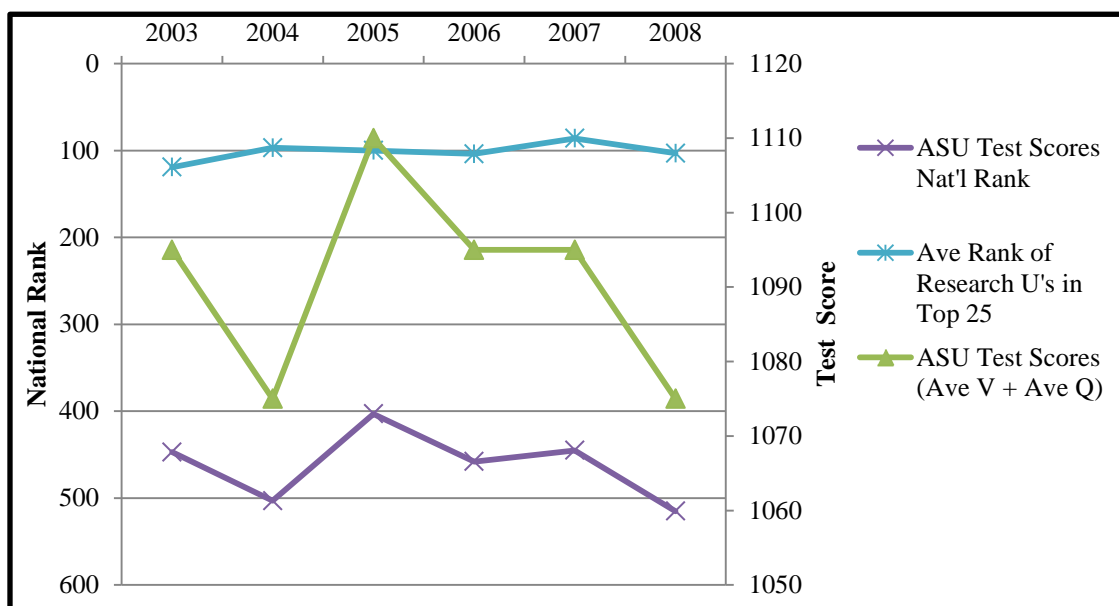
Source: Center for Measuring University Performance

The average test scores and the comparison of ASU's national ranking of such scores is compared with the average of the other top research universities in Figure 15 above. The two lowest entrance scores of universities holding a top 25 ranking as a research university were both held by Arizona schools (Center for Measuring University Performance, 2007). ASU has had output from their research efforts as well with 187 invention disclosures during fiscal year 2010.

<u>Students</u>

Dr. Crow shared that he felt that universities should be "student-centric, not faculty-centric." Some of the outcomes and metrics that would be relevant to students and a more student centric university are discussed below. One of the leading indicators for student retention rates increasing is the residence of a student on campus especially

during the first years of college (de Araujo & Murray, 2010). ASU has doubled the amount of student housing available to students since 2002 to provide for nearly 13,000 students (ASU Magazine, 2011). It is likely that the increase of ASU's freshman retention rate to 83% is at least partly because of this increase. In 2010, ASU had 19 students become recipients of Fulbright scholarships – one of the leading institutions in the country. Over the past decade, ASU has consistently been one of the top Fulbright Award producers in the nation.

In addition to helping them find jobs and stay in school, ASU has focused on making school affordable, more than 70 percent of ASU students received financial aid in fiscal year 2010 at ASU. Nearly $800 million in aid was provided to over 56,000 students. Dr. Crow described what he called the "Honda Civic" debt plan, which makes it the goal of ASU to ensure that no student needs to graduate with more debt than it would cost to purchase a Honda Civic (approximately $16-17,000). In support of the value proposition developed at ASU, Forbes magazine ranked ASU as one of the "Best Buys" in America.

Since 2002, ASU has graduated more than 125,000 students. In 2002, ASU awarded 8,190 undergraduate degrees with an additional 3,088 graduate degrees. In 2010, those numbers increased to 11,810 undergraduate degrees and 4,570 graduate degrees. While graduating more people is important, this fact coupled with the Wall Street Journal study that showed ASU to be rated in the Top five universities in the nation for corporate recruitment of new hires would seem to indicate another measure of excellence that is of particular relevance to the students. Another job data point provided

by U.S. News was that ASU's MBA graduates outpaced the national average in job placement.

Overall, there are several data points that would seem to support the efforts of ASU and Dr. Crow to make ASU a campus known for Excellence, Access, and Impact. On the negative side, the decrease in faculty, increasing teaching load, and the increasing costs of tuition to students are evidences that contradict some of the achievement claims.

THE CROW FACTOR

Dr. Crow's influence described in every interview and in nearly every piece of data gathered dictated that the review of his impact on ASU be discussed. As this was such a prevalent factor, we will review a few of the statements that used to describe Dr. Crow and some of the approaches he used to strive to introduce and solidify change at ASU. It is also important to understand what role he took in driving this change and some of the stylistic element used.

Leadership Style

Dr. Crow's leadership style has been described in several different ways. Some see him as persuasive and inspiring.

When I hear President Crow speak about his vision for the New American University . . . and, like I said, it has changed and evolved, but still the basic message is there. It is incredibly inspiring. Still today, he is a brilliant man and a really profound speaker. I think he is an inspiring speaker, and he presents a very compelling and exciting vision when you hear him at his best. That is in front of people talking about what the

"New American University" is all about, what we are aspiring to be, and how we're making strides in accomplishing that. (personal communication, May 20, 2011)

Others have lauded what he has done at ASU as innovative. President Crow was highlighted by Slate.com (2011) as one of the 25 "most innovative and practical thinkers of our time" for his efforts to reshape the American public university. The article went on to state some of the reasons for their commendation.

Since Crow's arrival, ASU's research funding has almost tripled to nearly $350 million. Degree production has increased by 45 percent. And thanks to an ambitious aid program, enrollment of students from Arizona families below poverty is up 647 percent. ASU is finding ways to serve the broader public within and beyond its classrooms. (para. 5)

Dr. Crow is described as one who is comfortable with risk. Another professor provided the following statement in support of this.

ASU has been able to serve, you know, 50% more students over the last eight years while, getting a 60% budget reduction from the state. It is by thinking about what you're supposed to do in new ways and embracing risk [this has been accomplished]. So risk is a fundamental characteristic about ASU, and a very—I think—fundamental characteristic of President Crow as a person. (personal communication, May 19, 2011)

President Crow himself talked about the qualities he felt a president of a university should have. "If you're minding the store at the university that you're at, and

you're a new president, you're just basically contributing to its ultimate demise. There is no value in minding the store—none. You have to be an agent of change." (M. Crow, personal communication, May 19, 2011) As he reflected on his approach to leading change at ASU he shared, "I sort of view myself as an organizational architect, and these were areas where the architecture of the organization would be dramatically altered if we pursued these as design aspirations." (M. Crow, personal communication, May 19, 2011)

Dr. Crow was also described as visionary. This was done both with direct verbiage, "it's his vision, " and "I think, part of the magic of Michael Crow is that sometimes we haven't—you know, we meaning faculty—haven't seen necessarily the longer view of things as they've occurred." (personal communication, May 16, 2011) Beyond providing a vision, President Crow has been able to overcome various obstacles that have presented themselves over the years. "The "New American University" has matured at all its levels now actually, but when Michael first came here and he was saying, 'Let's do that.' 80 percent of the people felt like, 'He is crazy.'" (personal communication, May 16, 2011) A staff member describes this as follows:

> President Crow sets the vision for the university. Some university presidents are very consumed with managing relationships whether it be with Board of Trustees, Board of Regents, financial donors or just being at a lot of events, and [Dr. Crow] does those things, but I think what also makes him unique is that he's a visionary leader. He very much sets the vision, but he also has surrounded himself with other individuals who are . . . almost mimic his style and his vision. And I don't mean mimic in that they're not creative, but mimic in that they share the vision, and they're

evangelists for the vision . . . in their own way. (personal communication, May 16, 2011)

As Michael Crow set out to change ASU into the New American University, he according to respondents used several opportunities to change his style and approach. One professor described that one of the challenges Crow faced was from those naysayers.

[They] came with kind of a natural distrust of the new president because of the fears that we [ASU] were going to become, in a sense, a monarchy of sorts, and that we had a dictator rather than a president who was going to not pay enough attention to faculty. Sometimes Michael's rhetoric got in his way, because his ability to communicate to the faculty was not always the best, and that sometimes did not help. Michael ended up getting a communications person to help him—who would come to meetings with Michael and then debrief him afterwards about what he could have done differently. (personal communication, May 19, 2011)

Another professor described Dr. Crow's interaction with faculty this way.

Michael, sometimes, in the early years, when he would be asked questions was rather dismissive sometimes of the faculty, even though he had called for questions. And so, he would challenge whoever was asking the question to come up with a better solution or better idea for this or that. (personal communication, May 19, 2011)

A Faculty Senate President shared a similar faculty fear when Dr. Crow arrived at ASU. "The sense was [when Dr. Crow arrived] that Michael was going to do whatever Michael

wanted to do. That really wasn't the case, but that was the perception of the faculty." (personal communication, May 19, 2011)

Several discussed Michael Crow's style of working with others to create and ultimately integrate this vision of the "New American University" into the culture at ASU. Rick Fabes shared the following on the subject:

This was not a grassroots plan by faculty and staff and college administrators. This was Michael Crow bringing the template and the ideas and the design with him when he came here, and many people didn't resonate with it. And some have [of these people] changed, you know, in tune or are at least okay with it. Many have left. And new people have come on board such that the only air that they breathe, that they know of in terms of ASU, is this new environment. (R. Fabes, personal communication, May 20, 2011)

Dr. Crow' leadership style appears to have been that of taking control, but also putting into place leaders who had bought into his vision, but could act on their own. His style apparently ran counter cultural for many of the faculty, but by most accounts, he adjusted these approaches.

Work / Knowledge / Preparation

Another grouping of information that applied to Dr. Crow's was often described as being very well informed if not an expert on just about any topic he encountered. "President Crow has been a student of institutions of higher education for a long time,"

shared one administrator. (personal communication, May 17, 2011) A professor described Dr. Crow's level of knowledge as follows:

He really has the facts, okay. He has looked at this—I do not care what subject you are talking about—he has looked at this more than you have. If he says X before you proposed Y; you had better have your act together. You had really better have your act together, because he has a reason for saying X. If you just are saying Y to be a pain, you are going to get called on it. (personal communication, May 16, 2011)

This professor also described Crow's knowledge in a slightly different way.

He may not be right, you know, or he may not have all his facts. But, if he says something some way, he thinks it is that way. If he sees a situation being a particular way, that is how he thinks. He is one of these guys that—they're the smartest person in the room no matter what room he's in. (personal communication, May 16, 2011)

Dr. Crow's constant drive to be prepared was captured in a lighthearted comment shared. "Many at the University were convinced that he didn't sleep." (personal communication, May 16, 2011) According to one faculty member, Dr. Crow was prepared in terms of external support as well. "I wasn't privy to the internal on goings, but it looked like he got to do whatever he wanted to do. He had the business community very much on his side and the politicians very much on his side. And so, he came in with quite a head of steam." (personal communication, May 16, 2011)

Force of Nature

Having a "head of steam" was another descriptive concept captured in several interviews. Dr. Crow was often referred to in the interviews as "being a force of nature." Several comments that reinforce this idea were as follows. "He raised the expectations, and he raised the bar." (personal communication, May 16, 2011) In addition, "You know, he's the source, he's the vision, and he's a lot of the energy." (personal communication, May 20, 2011) As well as:

Believe me, if [the administration] says something, they've thought about how it's going to play and so before you [the faculty member] just say, 'Alright, we can't do this,' you better consider what you're talking about, alright, and realize that probably in fact you can do it and your objection to it cannot be that you can't do it. It may be that you do not want to do it, in that case, okay—state that to be the case. We do not want to do this, and we have these reasons. But, 'We can't do it, it's impossible'—it's not at all impossible. (personal communication, May 16, 2011)

A former Faculty Senate President shared about Dr. Crow,

He said, 'You know, my approach to these things is…I bring people into these positions. There are specific things I want them to do. If they don't do it, I don't want them there, okay, so they can go back to faculty, to teaching classes or whatever.' So, it's not like he ruins them. He doesn't, you know, kill them. (personal communication, May 16, 2011)

A couple of comments about Dr. Crow's passion for getting things done were expressed as follows. "I had whiplash my first years here, but now that's not the case."

And, "if you've worked with Michael much, then you know he's a force of nature, and so he came in with a lot of ideas on what he wanted to see done and started going at it right away. There was certainly no delaying getting started." (personal communication, May 16, 2011) Dr. Crow himself talks about his desire to get things done quickly. "The hardest thing to change was overcoming the institution's insecurity about taking an accelerated path in differentiation." (M. Crow, personal communication, May 19, 2011) When asked what he would do differently if he was starting all over again in 2002, Dr. Crow responded, "Well, I'd probably, I always think this, work harder and change more quickly. You know, [back] then I did not know it would work. Now I know that it would work. So now that you know that it would work, well, then, why not do more?" (M. Crow, personal communication, May 19, 2011)

<div align="center">What if he leaves?</div>

The final stage of Kotter's framework is: change the culture. "Articulate the connections between the new behaviors and organizational success. Develop the means to ensure leadership development and succession." (Kotter International, 2011) The level of cultural integration of the "New American University" was shown in answer to the question, "What happens when Dr. Crow leaves?" Many felt that the ASU culture had changed sufficiently that there would be minimal impact if Dr. Crow were no longer at there. "Right now, I think it's . . . we've gotten to the point where entrepreneurship is so embedded in the university, that it wouldn't go away." (personal communication, May 16, 2011) A staff member shares the following about the level of integration in many aspects of the culture,

It has been implemented to areas, goals, and values that matter to that individual. So, things like promotion and tenure in certain departments is focused, depending on the college, at different varying degrees to connections to the New American University vision. Recognition of success…there are awards given out by the president related to some of the key design aspirations. And, I think even if you didn't care about it at all, just by the fact that you're hearing it over and over again, people start kind of saying, 'What is this thing—maybe I should try figuring it out' or really starting to buy into it more. (personal communication, May 16, 2011)

While the respondents expressed ample speculation and agreement that some things would change when Dr. Crow was no longer there, there was general agreement that ASU has moved beyond the institution it was in the past and would never go back to that old model. Some different points of focus might arise from a new President coming into ASU, but the mission of the university has changed. That mission and the vision of the "New American University", it was stated by many interviewed, had caught to varying degrees across the university. Those interviewed who commented on the potential of Dr. Crow's departure stated that even without Dr. Crow at the helm, the "New American University" would continue down this path.

It appears clear from the comments shared by the respondents that not everyone liked or even felt Dr. Crow's management style was appropriate for a university. His leadership style was often described as being more business-like that academic. As

shown by the high degree of alignment with Kotter's change stages, many of the techniques employed by Dr. Crow have a high overlap with the corporate sector.

CHAPTER 5

SUMMARY AND CONCLUSIONS

This chapter summarizes the findings discovered during the research. It then presents various observations and recommendations (including opinions) on the New American University, the level, and effectiveness of change at ASU, the approach taken at ASU, and other insights that may not have presented themselves in the findings. It then discusses some of the limitations of this research. It then offers suggestions for future research on the New American University, change, and leadership. Lastly, overall conclusions are given.

SUMMARY OF FINDINGS

This study's goal was to understand what changes if any had occurred since Dr. Michael Crow became president of Arizona State University in 2002 and introduced the "New American University" model. Were these the intended changes, and were there any unintended changes? Where changes were discovered, this study attempted to understand what those changes were, and their benefits or detriments to ASU specifically.

Changes Made

In the introductory comments made by Dr. Michael Crow in November of 2002 at his inaugural address, he described several of intended changes by ASU becoming the "New American University." The intent as expressed in that address was to become a better research university and to break with the traditional "Gold Standard" approach to

becoming a better university (Crow, 2002). This new approach was to not only become an institution of Excellence, but simultaneously provide for the region by becoming an institution of Access. ASU had pockets of Excellence as demonstrated by several of the external recognitions received by various colleges, centers, and institutes. Some of the accomplishments of the students also showed excellence. ASU also appears to be an Access institution if by nothing more than its low barrier to entry for students that as shared by a former Faculty Senate President and made light of on "The Simpsons." Beyond Access and Excellence, Dr. Crow also desired ASU to be an institution of Impact to the community and the world. ASU had a history of being involved in the community, so the directive to be more impactful was clearly part of the culture at ASU from before. By studying and undertaking larger, global problems, ASU appears to be acting as an institution of impact.

While evidences of Excellence exist, there is at least one major concern highlighted regarding excellence at Arizona State University. This apparent shortcoming has everything to with the faculty. There appears to be at least a strong concern according to those interviewed and a few other articles and studies, that the teaching load and work load required of ASU faculty is becoming overwhelming. An institution of higher education must provide excellence in teaching. Strong doubts about teaching expressed often cast doubt on this aspect of ASU. The only positive comment found on teaching was a reference to the Biodesign Institutes approach to "real-world" instruction methods.

It appears Dr. Crow desired these changes for several reasons. First, as he had studied various ideals about higher education and its purpose, it seemed clear that

pursuing excellence at any educational institution was the right course. Excellence as a concept holds several opportunities for implementation including, becoming an excellent research institution, having excellent students, as well as having excellent faculty. In addition, as a public institution, Dr. Crow took the institution's responsibility to the community very seriously. In understanding the environment in which ASU exists, Dr. Crow understood that not only is there a large population to serve, but that population was not the best-educated population in the country. Access in turn also took on a multidimensional meaning or opportunity for implementation as well, access to ASU for more students, especially those within the region, access to ASU for the community in striving to solve some of their economic challenges, and access to higher education for the community. By not just complaining about K-12 education outcomes, but working to change them ASU takes an active role in improving education in the community. Lastly, the Impact portion of the vision that Dr. Crow described held many nuances, improving the impact of the research undertaken at ASU, providing a greater impact by helping to improve the local communities, delivering greater impact on the students by providing a better education, and impacting globe through the research developed toward solving the "big problems."

As these intended changes were broad and multiple meanings for each of the three visionary words (Access, Excellence, and Impact) exist, Dr. Crow introduced the guiding values of the "New American University." While these originally named Design Imperatives changed in name over time to the Design Aspirations, there original intent and meaning remained constant. The first of these, "Leverage Our Place," aligned significantly with Access and Impact as the population of Phoenix continued to grow, and

the demographics of Phoenix continued to change and become more diverse and predominantly more Hispanic. "Leverage Our Place" provided guidance to the types of research and development activities ASU might undertake. These included research focused on erosion, water preservation, and etcetera as well as improving the teaching of the region, which provided rationale for continued development of the teachers college. The second aspiration, "Transform Society," similarly focused on Access and Impact by striving to improve the Greater Phoenix community through programs that tried to improve the living conditions of the poor and the needy there in terms of housing and education.

The third aspiration, "Value Entrepreneurship," was a focal point aspiration of the research conducted. ASU's intent to use the knowledge contained within the university, its faculty, and its students to improve the entrepreneurship in the university and the community has several evidences of achieving its intended changes. The rationale for valuing entrepreneurship as explained by Dr. Crow initially considered the economic impact of the university on the region. His desire was that the university would "move towards a paradigm that casts the university as an enterprise responsible for its own fate, and enterprise which the state government charters and empowers, and in which it invests." Continuing, he explained his desire was for the university to focus on research with commercial application and revenue generation opportunities for the university. There were several discoveries made that would indicate that the intended changes in this area have been at least partially achieved. The two most evident were the creation of SkySong, the innovation center and incubator created in Scottsdale, AZ, and the overall integration of an entrepreneurial mindset across the culture at ASU and every school in

the university. These two achievements are a significant departure from the activities that had taken place at ASU in years prior to the "New American University" and seem to indicate progress toward stating the intended change – "Value Entrepreneurship" – has been achieved. By adding recognition for and requirement of entrepreneurial activities to several of the measures that go into reviewing faculty and departments strong integration into the culture seems apparent. ASU's grant from the Kauffman Foundation to continue and advance the teaching and practicing of entrepreneurship at ASU provides external validation of the existence of this Design Aspiration. Other investors' support of this Design Aspiration by providing funding, grants, and awards for those who have demonstrated excellence in entrepreneurial endeavors is another external recognition of ASU's success of achievement in this area. There has been an overlap in the community Design Aspiration "Be Socially Embedded" as well as social entrepreneurship has also advanced. Many of the university's entrepreneurial ventures discovered focus on the immediate needs of its surrounding region. This aspiration chiefly focuses on excellence and impact. The next aspiration, "Conduct Use-Inspired Research," also overlaps with "Value Entrepreneurship." The culture of entrepreneurialism achieved in the university has advanced use-inspired research. The researcher often has found a way to move to the next step of commercialization. As progress occurs on this Design Aspiration, impact occurs.

Researched artifacts seem to demonstrate some achievement of "Enable Student Success," the fifth Design Aspiration. As retention rates increased to 83 percent in freshmen, it follows that the likelihood of a student finishing their university education also increases. Studies show that retention rates improve when students are housed on-

campus (Aitken, 1982; de Araujo & Murray, 2010). ASU has more than doubled its student housing during the Crow administration and now is capable of housing more than 13,000 students. It seems likely that the improvement of freshman retention rates is at least partially from the increased number of housing opportunities. Improved numbers of honor students attending the university as well as the university being one of the top five places recruiters like to come seem to provide additional evidence that things have improved for students (Arizona State University, 2011). While the average incoming student test scores have been largely unchanged over the decade, with the typically lower scoring student population doubling (see Table 7) as the size of the student body has increased by a little over 25 percent, this seems to indicate that successful students are attending also.

"Fuse Intellectual Disciplines" is the sixth Design Aspiration, and another that was more deeply studied. Dr. Crow stated in his inaugural address that the intended changes were to investigate a new direction that would not follow the traditional disciplinary organization universities follow.

> [This traditional approach] may not be the optimal way to organize knowledge, or to organize the institution itself, or to teach students, or to solve the social, economic, and technological challenges confronting institutions…I encourage teaching and research that is interdisciplinary, multidisciplinary, and transdisciplinary. I encourage the convergence of disciplines, where appropriate…. (Crow, 2002, p. 26)

Accomplishment of these intended changes seems evident through the creation of several new schools, centers, and institutes (listed in the findings chapter) that have developed

new solutions and approaches to the problems they are striving to solve. This Design Aspiration also has overlap overlapped with "Use-Inspired Research." Dr. Rikakis described the process of fusing intellectual disciplines as first being about selecting the problem to solve, and then looking at who would be required from the various disciplines to undertake the challenge of the solution. One of the unintended changes described was the development of a proficiency based degree program in which various majors participate. As described in the findings above by Dr. Rikakis, applying the methods of existing disciplines was often not effective for multidisciplinary teams. The effort of creating interdisciplinary programs was "not to eliminate disciplines as we know them, or to transform core fields, but rather to advance knowledge in the face of its rapidly changing nature, the explosion of new knowledge that characterizes the academy in recent decades (Crow, 2002, p. 26)." This aspiration helped achieve many Excellence and Impact products for the university.

The seventh Design Aspiration, "Be Socially Embedded," was the last studied deeply in this research. ASU's intended changes for this aspiration consisted of striving to connect the community with the university toward many mutually beneficial partnerships. The idea of "Be Socially Embedded" as a university, especially as a public university, is nothing new or earth shattering, however, it appears that the extent to which ASU has advanced and institutionalized their social engagement programs has been significant. The breadth of the various partnerships includes over a thousand different opportunities for students to engage with the needy and companies in the Greater Phoenix area. The overwhelming response to the English Internship program run by Ruby Macksoud demonstrated that students desire to be involved in their communities. In

benefited from the large increase in the research dollars spent each year. Nearly tripling the research expenditures in a given university without the addition of a medical school is noteworthy. The culture of the university has changed and has integrated the ideas of entrepreneurship, social embeddedness, and excellence well beyond where these ideas were a few short years ago. The addition of high profile and implied high quality faculty has occurred. Many interviewed as well as various ranking tools recognize this to be positive action at any institution. Raising the bar for faculty expectations as shown in the increased alignment of tenure with the new model as well as the expectation to be entrepreneurial in each area of the university has apparently assisted ASU in bringing in some top faculty. The research pursued by the university is apparently drawing in top faculty and graduate students, corporate dollars, and is garnering awards and recognition for the university. Finally, the students themselves are demonstrating an increased level of success as demonstrated by them being more desirable to those who are looking to hire them (Arizona State University, 2011). These successes described are based on the interviews conducted and some of the triangulation data from external parties, primarily news reports.

On the loss side of the equation, many faculty interviewed felt that there is a loss of collegiality among the professors due to the increased workload required of the professors. This increased workload also accounted for many concerns voiced about the quality of instruction at ASU as class sizes have increased with the increased student population of the university. As most US universities have no rigorous outcome testing mechanism, it is difficult to compare how the learning outcomes have been impacted by this increased workload.

The "New American University," defined as a university model that provides both access and excellence and focuses on delivering impact to the various communities, is apparently operating at ASU. The significant differences or areas of change when compared with other university models hinges on the idea that one can be excellent, be an access institution, and provide impact while keeping costs low. If ASU achieved the "iron triangle" in each of the three aspects (excellence, access, cost), the "New American University" model is more noteworthy. ASU has demonstrated this at some level in various programs. Mostly, the university has benefited from this undertaking in terms of prestige, growth, economics, and mission fulfillment. The areas sacrificed to achieve this have largely fallen into the category of faculty stress, workload, and loss of collegiality.

OBSERVATIONS AND RECOMMENDATIONS

This section shares the author's insights and recommendations based on the research and encounters at Arizona State University and its "New American University." These insights are broken into a few categories: the "New American University;" change at ASU and other universities; the approach to this transition at ASU; and other insights.

New American University

The unique concept or model that is the "New American University" is best summed up as an institution that is achieving each of the three vertices of the "iron triangle." ASU in implementing the "New American University" has shown an approach to achieving Access, Excellence, as well as Cost Effectiveness. The "New American University" in its ASU incarnation would likely work at very few universities in its entirety. To take the whole program with access, excellence, and impact exactly as

implemented at ASU would likely not be an effective use of an institution's time. If an institution is serving a large population and it is public, perhaps having access be one of the central features of your institution's vision would be appropriate. However, as excellence is an attribute that all institutions of higher education are seeking, the approach taken by ASU may offer some promise. The fusing of disciplines to solve use-inspired research topics has been a path that has drawn top faculty and students. This approach has also brought in significant funds into the institution in terms of grants and other donations to pursue this interest. Alternate sources of revenue for higher education should be of interest to most universities. In the author's opinion, adoption of many of the approaches taken by ASU would be worthwhile and beneficial to just about any research institution. Finally, the idea of a university purposefully striving to "impact" the world seems help to direct the funds of the institution strategically in areas that are directly benefiting the community. If a university is looking to develop or adopt their own version of the "New American University" model on their campus, first, a careful study of what that institution's unique environment and offerings are or can be should be undertaken. Again, as was stated by Porter, strategy creates a unique position. A strategy to do what everyone else is doing is not a strategy at all. Creation of a unique value proposition is required.

<div align="center">Change</div>

Throughout the past nine years that ASU under Dr. Crow's leadership has undertaken these changes, many in the press and in the education industry have been vocal or "lying in wait" for ASU's failure to be exposed. ASU's implementation of this new model has not been without some negative impacts, especially to the faculty as

reported by respondents. However, it was interesting to the author that even those initially taking issue with some of the implementation approaches of the "New American University" have apparently found the benefits outweighed any losses. They stated that in spite of their dislike or distaste for the approach or style of Dr. Crow in reinventing ASU, it has been a benefit to for the university and for the faculty overall when compared with where the university has been positioned.

Others have claimed that there is no change, that the "New American University" is just marketing spin, which provides the appearance of change. It is true that Dr. Crow and ASU have done a great deal of promotion of the "New American University" concept and the relevant accomplishments. Does the promotion of something mean that the content does not exist? From the investigations conducted, there were several evidences discovered which reinforced that this is not just smoke and mirrors. The physical evidences: buildings, new ventures, grants, awards, etcetera would be ample enough to show that change has occurred. Add to these physical representations the accounts of those who have been at ASU for a more than 15 years who described the vibrancy and quality of the faculty and their research pursuits and it seems clear ASU has never been stronger. It appears from ASU's implementation that the cost for such pursuit is consistent and hard work. While several of those interviewed shared that life was easier for the faculty in the past, the outcomes of the past ASU pale as compared those achieved today. The change process however, is not over.

A significant shift in several areas has happened, but the "New American University" can continue to be improved. Drawing an analogy to the American University may be instructive. When introduced about a century ago the American

University model was not yet perfected. It had the proper framework and institutions have followed, improved, and adapted it to their particular circumstance. Similarly, the "New American University" has provided an outline, it will continue to evolve where appropriate and at ASU as well. Some may argue that Dr. Crow is not a visionary as many of the directions that ASU has taken under this New American University are not necessarily new. Even Dr. Crow himself shared the influences that led him to pushing this direction. Others claim he is a skilled promoter of the things ASU has accomplished. Whether the New American University is an innovation or the implementation of the great ideals that many have described as desirable seems not to be as important as the fact significant progress has been made by ASU under Dr. Crow's leadership. Leadership is the key that Dr. Crow has brought to the university. In driving the organization forward, ASU achieved great strides at a quick pace, which rivals others. The research dollars spent as described by the NSF data (Figure 14) show that the efforts at ASU have outpaced those of the top 50 and the top 100 public research institutions over President Crow's tenure. Changing quickly is something that universities are not typically known for, and it seems apparent that Dr. Crow has found a way to take a large public university and turn the "boat" quickly, in spite of its size.

<div align="center">Transition Approach</div>

The approach to changing ASU has many parallels within the business world. A strong corporate leader sets forth a vision. Dr. Crow made an appeal for the good of the organization and provided a path in the best interest of the university and its constituents. Change was undertaken immediately to shift the culture to be one that supports the desired end state. When required processes and personnel have been changed to open

doors or remove blockades or when there is a drastic change to an organization, those that liked the old way of doing things did not necessarily like the idea that "their way" was no longer the "organization's way." There were quick wins to show that this model could work, and these wins were leveraged into changes that are more pervasive.

Dr. Crow provides his view of what a university or its leadership should actively pursue in striving to help that institution excel.

> You must find those areas where you are as good as or better than anyone else and leverage those. You have to find ways to leapfrog—there is no chasing anyone, because there is no catching anyone. Therefore, the notion is finding a unique strategy, a unique identity. That is the single most important thing. (M. Crow, personal communication, May 19, 2011)

This echoes the idea Porter shared that for an organization to have a successful strategy – a unique value proposition must be created. Dr. Crow also brought a heightened focus on making the changes quickly. No committee had months or years set aside to discuss and figure out what the best ways for making change might be. The shortened timeframe demanded action, and when missteps occurred, adjustments followed. This is contrary to the traditional approach to change by higher education, but drastic change in general is contrary to what occurs in higher education. The danger of such an approach (quick unilateral change) is that if the direction selected is wrong or not well thought out – it can spell disaster for an organization in short order.

Dr. Crow's role in the improvement of Arizona State University's health and status has garnered much attention and press (Arizona State University, 2011). It is important to temper the role of any individual in reviewing large change attributed to

them. Several works (Hearn, 1988; Pfeffer & Sutton, 2006) have postulated that there is more of the environment than to the leader when it comes to drastic change. The environment for change certainly existed at ASU. The fact that it is the only public research university serving a large metro area certainly was a powerful environmental factor. The university's history of growth in research as well as community outreach programs was also an environmental factor at ASU. Certainly economic crisis is an environmental factor that would cause any institution to change. Clearly, a case can be made that these factors provided opportunity for change to occur at ASU with or without Dr. Crow. However, many of these factors exist at other institutions as well, and little apparent change has resulted. This however may be due to less promotion of a particular institution's change than a lack of it. It seems more likely that Dr. Crow, aware of these environmental factors, harnessed this opportunity and directed the change in an accelerated manner. Perhaps the accomplishments made at ASU would have occurred eventually, but the accelerated change experienced at ASU seems reasonably attributed to the vision and drive provided by Dr. Crow.

Other Insights

One professor within the teachers college expressed that she thought the teacher's college was going to "go away" as part of a soon-to-come change at ASU. This would likely undermine some of the impact on teaching in the community ASU has accomplished. If the production of teachers from ASU were to end, it is likely several of the Design Aspirations would accordingly suffer. While Dr. Crow's inaugural address expressed the importance of excellent instruction at ASU, it appears this is one area receiving lesser focus. This was highlighted by several interviewed and perhaps more

focus on this area would provide even greater results. As Access is a goal of ASU, traditionally poorer academically performing students would stand to gain much from improvement in this area. Developing a program to help students learn more effectively would provide gains for ASU in all three areas of the vision: Access, Excellence, and Impact.

It is possible that until some university that is a fixture in the industry were to close its doors due to the various pressures and forces discussed above, little in the way of broad change higher education will occur. If, as Lehman Brothers closed in 2008, the University of California, Los Angeles were to close, perhaps that kind of event would cause similar ripples through the education industry. The likelihood of more fundamental changes occurring would increase, or it may just be the catalyst for the federal government to take over the management of higher education in the United States.

RESEARCH LIMITATIONS

The findings of this study come primarily from the interview respondents and thereby represent one limitation. In spite of saturation occurring during the interviews, not everyone associated with the university or even those in a position of power, past and present were interviewed. Gaining a full range of opinions was not possible, but based on the feedback from those interviewed conclusions were drawn. Those interviewed could only provide their view of the facts, thereby limiting the accuracy of the research to the opinions expressed by the respondents. Potential for withheld information existed. As the research conducted was by one not deeply associated with Arizona State University, it is probable that some changes and associated impacts were missed. The

limitation of time also allowed for deep study of only three of the eight Design Aspirations perhaps tainting some of the general claims of significant progress.

FUTURE RESEARCH

This study only focused on three of the eight Design Aspirations as well as the idea of change in an institution of higher education. Much is occurring in the other aspirations that may warrant study. Such research would be instructive to universities focused on some of those aspirations. Additionally, a more in-depth look at the finances would be instructive. Gaining a better understand the financial picture of what grew, what disappeared, and how funds were allocated to achieve the changes that have occurred could help shed additional light on how to approach change at universities. Another research topic would be to take a more holistic view of the U.S. education industry and how it has changed and responded to threats as compared with another industry may prove instructive. When a given industry adjusts to change, it will often thrive or die. Does the same occur at universities? In addition, a study of the various leadership styles and their real or perceived impact on the direction of universities would be interesting. The study of university performance when a president is content with the "status quo" versus university performance when a leader takes an active part in driving in institution to its next milestone may provide a Board of Regents some instruction on the kind of leader to bring into their university. It would also be interesting to see how much the environment influenced the approaches of these leaders. Can a leader bring about change in spite of the environmental conditions?

<u>CONCLUSIONS</u>

The idea of taking a university and fundamentally changing not only its mission but also its culture is significant. More focus on research that is applicable, to providing access to all who would like to gain a university degree, and striving to do all of these with the highest quality is a worthy goal, but one that most universities will likely view as too utopian to undertake. The model developed by ASU could be at least partially applied at large public universities with a large community to serve. This is not a rare combination. Adoption of the entrepreneurial and fused discipline Design Aspirations also appears to have provided significantly increased revenue opportunities that universities can desperately use.

There will always be critics of those who strive to make changes. While some of the approaches that Dr. Crow used in moving the university in a different, faster direction were not uniformly appreciated, shifting the direction of any institution will take strong leadership which in turn will often bring out critics as those whose lives and livelihood are no longer aligned with the new direction must either adapt or leave. The imposing factors described by Porter's Five Forces that are bearing down on the education industry have been to some extent addressed by Dr. Crow's approach to the "New American University." The diffusion of revenue sources has at a minimum helped to solve the ever-shrinking state allocation issue. The development of use-inspired research coupled with entrepreneurship infused into the organization has also generated income streams, but additionally has improved some of the inefficiencies found in areas of the institution. Competition from the for-profits or certificates is overcome by the research and educational benefits incorporated into ASU. Finally, as the university has become a true

partner with the community in solving the issues that are plaguing them, the dissatisfaction that has been rising from many of the communities with public institutions is largely overcome.

REFERENCES

Aitken, N. D. (1982, Jan - Feb). College Student Performance, Satisfaction and Retention. *The Journal of Higher Education, 53*(1), 32-50.

Archibald, R. B., & Feldman, D. H. (2010). *Why Does College Cost So Much?* New York: Oxford University Press.

Arizona State University. (2009, January 23). *Officials offer budget facts*. Retrieved from ASU News: http://asunews.asu.edu/20100303_budgetfacts

Arizona State University. (2010, December). *A New American University.* Retrieved December 20, 2010, from New American University - ASU: http://newamericanuniversity.asu.edu/docs/NAU_Dec10.pdf

Arizona State University. (2010). *Awards by Institution*. Retrieved from Arizona State University: https://provost.asu.edu/index.php?q=awards/prestigious

Arizona State University. (2010). *Fact Book 2008-09 | Institutional Analysis.* Retrieved from ASU: Institutional Analysis: http://uoia.asu.edu/fact-book-2008-09

Arizona State University. (2010, November 18). *New American University*. Retrieved November 18, 2010, from ASU: New American University: http://newamericanuniversity.asu.edu/

Arizona State University. (2010, November 8). *New American University - Design Aspirations*. Retrieved June 18, 2011, from New American University: http://newamericanuniversity.asu.edu/design-aspirations/

Arizona State University. (2011). *Access ASU | Educational Outreach and Student Services*. Retrieved from Access ASU: http://eoss.asu.edu/access/

Arizona State University. (2011). *Recognition of Excellence at ASU*. Retrieved from ASU: Excellence: http://www.asu.edu/excellence/recognition.html

ASU Alumni Association. (2011, February 12). *History of ASU and the Founders' Day*. Retrieved May 9, 2011, from ASU Alumni: http://alumni.asu.edu/events/history-asu-and-founders%E2%80%99-day

ASU Magazine. (2011, September). By The Numbers. *The Magazine of Arizona State University, 15*(1), pp. 32-39.

ASU SkySong. (2011, May 12). *SkySong: ASU Scottsdale Innovation Center*. Retrieved from SkySong: ASU Scottsdale Innovation Center: http://www.skysongcenter.com/

Birnbaum, R. (2000, January/February). The Life Cycle of Academic Management Fads. *The Journal of Higher Education, 71*(1).

Bok, D. (2003). *Universities in the Marketplace: The Commercialization of Higher Education.* Princeton, NJ: Princeton University Press.

Bolman, L. G., & Deal, T. E. (2008). *Reframing Organizations: Artistry, Choice, and Leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Boulding, K. E. (1972, Winter). The Schooling Industry as a Possibly Pathological Section of the American Economy. *Review of Educational Research, 42*(1), 129-143.

Buckle, W. F. (1929). *The Life of Benjamin Disraeli, Earl of Beaconsfield* (Vols. 2, 1860-1881). London: John Murray.

Cameron, K. (1978, December). Measuring Organizational Effectiveness in Institutions of Higher Education. *Administrative Science Quarterly, 23*, 604-629.

Canfield-Davis, K., & Jain, S. (2010, May). Legislative Decision-Making on Education Issues: A Qualitative Study. *Qualitative Report, 15*(3), 600-629.

Carnegie Foundation. (1994). *Carnegie Classifications / Downloads.* Retrieved from Carnegie Foundation: http://classifications.carnegiefoundation.org/downloads/1994_edition_data.xls

Cengage, G. (2002). *Industry Life Cycle*. (K. H. Hillstrom, Editor) Retrieved Jan 4, 2011, from Encyclopedia of Small Business: http://www.enotes.com/small-business-encyclopedia/insustry-life-cycle

Center for Measuring University Performance. (2007). *The Center for Measuring University Performance*. Retrieved from The Center for Measuring University Performance: http://mup.asu.edu/index.html

Christensen, C. M. (2001, Summer). Assessing Your Organization's Innovation Capabilities. *Leader To Leader, 21*, 27-37.

Christensen, C. M. (2003). *The Innovator's Dilemma: The Revolutionary Book that Will Change the Way You Do Business.* New York: Harper Paperbacks.

Clark, B. (2001). The Entrepreneurial University: New Foundations for Collegiality, Autonomy, and Achievement. *Journal of the Programme on Institutional Management in Higher Education, 13*(2), 9-24.

Clark, B. R. (1976, October). The Benefits of Disorder. *Change, 8*(9), 31-37.

Clark, B. R. (1996, December). Substantive Growth and innovative Organizations: New Categories for Higher Education Research. *Higher Education, 32*(4), 417-430.

Clark, K. (2007, October 26). *Heading Back to College-Universities are doing more than ever to attract older students*. Retrieved from US News: Money: http://money.usnews.com/money/retirement/articles/2007/10/26/heading-back-to-college

Collins, J. (2001). *Good to Great: Why Some Companies Make the Leap... and Others Don't.* New York: Harpers Business.

Coulombe, P. (2011, September 2). *ASU ranked in top 25 in the world in biological sciences | ASU News*. Retrieved from ASU News: http://asunews.asu.edu/20110902_SOLStop25

Crazy, D. (2009, May 03). *"Changing" Higher Education - Dr. Crazy's View*. Retrieved January 04, 2011, from Reassigned Time: http://reassignedtime.blogspot.com/2009/05/changing-higher-education-dr-crazys.html

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). California: Sage Publications.

Crow, M. (2002, November). *Inaugural Address: The New American University.* Retrieved February 24, 2011, from ASU: Office of the President: http://president.asu.edu/inauguration

Crow, M. (2009, April). *Changing the Trajectory of the Economy: Change the Trajectory of Universities.* Retrieved from ASU: Office of the President: http://president.asu.edu/node/699

Crow, M. (2010, October 4). Sustainable, Innovative & Engaged: Envisioning the New American University. Boston, MA, USA. Retrieved from http://www.nebhe.org/events/fall2010/

de Araujo, P., & Murray, J. (2010, February 9). Estimating the Effects of Dormitory Living on Student Performance. *Economics Bulletin, 30*, pp. 866-878.

de Vise, D. (2009, September 15). *Private D.C. College Loses Accreditation*. Retrieved January 17, 2011, from Washington Post: http://www.washingtonpost.com/wp-dyn/content/article/2009/09/14/AR2009091401088.html

Diamond, R. M. (2006, Nov-Dec). Changing Higher Education: Realistic Goal or Wish? *Trusteeship, 14*(6).

Doughroller. (2010, November 23). *10 Largest University's In The United States*. Retrieved from Doughroller: http://www.doughroller.net/education/the-10-largest-universities-in-the-united-states/

Evans, T. (2010, September 13). *Penn State Tops Recruiter Rankings: Companies Favor Big State Schools With One-Stop Shopping for Graduates With Necessary Skills*. Retrieved from Wall Street Journal: http://online.wsj.com/article/SB10001424052748704358904575477764336966335 2.html

Greene, J. P. (2010, August 17). *Administrative Bloat at American Universities: The Real Reason for High Costs in Higher Education*. Retrieved from Goldwater Institute: http://107.20.138.12/article/administrative-bloat-american-universities-real-reason-high-costs-higher-education

Hamel, G., & Parhalad, C. (1994). *Competing for the Future.* Boston, MA: Harvard Business School Press.

Hearn, J. C. (1988). Strategy and Resources: Economic Issues in Strategic Planning and Management in Higher Education. In J. Smart (Ed.), *Higher Education: Handbook of Theory and Research* (Vol. IV, pp. 212-281). New York, NY: Agathon.

Hearn, J. C. (2008). *Higher Education's New Economics: The Risks and Rewards of Emerging Operational Reforms.* Washington, D.C: American Council of Education.

Hearn, J. C., & Lacy, A. T. (2009). Governmental Policy and the Organization of Postsecondary Education. In G. Sykes, B. Schneider, & D. N. Plank, *Handbook of Education Policy Research* (pp. 942-957). New York: Routledge.

Hill, C. (2010, March 30). *External Pressures Bring Changes to Higher Education.* Retrieved January 4, 2011, from Faculty Focus: http://www.facultyfocus.com/articles/distance-learning/external-pressures-bring-changes-to-higher-education/

Hovey, H. A. (1999). *State Spending for Higher Education in the Next Decade: The Battle To Sustain Current Support.* San Jose: National Center for Public Policy and Higher Education.

Imparato, N., & Harari, O. (1996). *Jumping the Curve: Innovation and Strategic Choice in an Age of Transition.* San Francisco, CA: Jossey-Bass.

Jager-Hyman, J. (2009, March 26). *Where You Go to College Doesn't Matter*. Retrieved from Forbes: http://www.forbes.com/2009/03/26/college-admission-officer-opinions-contributors-decision.html

Jean, A. (1999, April 11). The Simpsons (AABF15). Retrieved from http://www.snpp.com/episodes/AABF15

Johnstone, D. B. (1998). The Financing and Management of Higher Education: A Status Report on Worldwide Reforms. (p. 33). Washington DC: The World Bank.

Keeler, S. (2006, December 14). *ASU awarded $5 million by Kauffman Foundation*. Retrieved from ASU News: http://asunews.asu.edu/stories/200612/20061214_kauffman.htm

Keeler, S. (2010, September 10). *Fall 2010 enrollment shows record high retention, quality, diversity*. Retrieved from ASU News [University]: http://asunews.asu.edu/20100909_enrollment

Kelly, A. P., Schneider, M., & Carey, K. (2010, March 18). *AEI - Papers*. Retrieved from American Enterprise Institute for Public Policy Research: http://www.aei.org/paper/100093

Kerr, C. (1980, October). Coordination in a Changing Environment. *Change, 12*(7), 19, 53-56.

Kerr, C. (1993). Higher Education: Doing So Well; Feeling So Bad. *Issues in Higher Education*, 1-13.

Kezar, A. (2001). *Understanding and Facilitating Change in Higher Education in the 21st Century. ERIC Digest.* San Francisco: Jossey-Bass.

Kotter International. (2011). *8-Step Process for Leading Change*. Retrieved August 14, 2011, from Kotter International: http://www.kotterinternational.com/kotterprinciples/changesteps

Kotter, J. P. (1995, March-April). Leading Change: Why Transformation Efforts Fail. *Harvard Business Review*, 59-67.

Lavelle, L. (2010, January 28). *University Endowments: Worst Year Since Depression*. Retrieved January 26, 2011, from BusinessWeek: http://www.businessweek.com/bschools/content/jan2010/bs20100127_360651.htm

Lazerson, M. (1998, September). The Disappointments of Success: Higher Education After World War II. *Annals of the American Academy of Political and Social Science, 559*, 64-76.

Lewin, T. (2009, March 16). *State Colleges Also Face Cuts in Ambitions*. Retrieved from NY Times: http://www.nytimes.com/2009/03/17/us/17university.html?pagewanted=all

Magner, D. (2009, May 6). Making an Impact on Higher Education. *Chronicle of Higher Education*.

March, J. (1995, June 7). *Too much efficiency not good for higher education.* Retrieved January 29, 2011, from Stanford News Service: http://news.stanford.edu/pr/95/950607Arc5193.html

Maricopa Community Colleges. (2011, November 4). *About Us | Maricopa Community Colleges*. Retrieved November 4, 2011, from Maricopa Community Colleges: http://www.maricopa.edu/about/?demographics

Menand, L. (2010). *The Marketplace of Ideas.* New York, NY: W.W. Norton & Company.

Meyer, M., & Bushney, M. J. (2008). Towards a Multi-Stakeholder-Driven Model for Excellence in Higher Education Curriculum Development. *South African Journal of Higher Education, 22*(6), 1229-1240.

Murray, G. (2008). On the Cutting Edge (of Topor): Innovation and the Pace of Change in American Higher Education. *AACE Journal, 16*(1), 47-61.

Nair, P. (2003, January). *Imperatives for Change in Higher Education*. Retrieved January 4, 2011, from Design Share: http://www.designshare.com/index.php/articles/change-higher-education

Office of University Initiatives. (2010). *Office of University Initiatives*. Retrieved April 13, 2011, from Office of University Initiatives: http://ui.asu.edu/whatisui/?ui=0

Pawlenty, T., Rendell, E. G., & Scheppach, R. C. (2008). *Higher Education, Mandates and Unintended Consequences: An Analysis of the MOE Mandate in HR 4137.* Washington D.C.: National Governors Association.

Pfeffer, J., & Sutton, R. I. (2006). *Hard Facts, Dangerous Half-Truths And Total Nonsense: Profiting From Evidence-Based Management.* Boston: Harvard Business Press.

Pope, J. (2006, November 9). *Number of students taking online courses rises*. Retrieved January 26, 2011, from USA Today: http://www.usatoday.com/tech/news/2006-11-09-online-learning_x.htm

Porter, M. (1979, March-April). How Competitive Forces Shape Strategy. *Harvard Business Review*, 1-10.

Porter, M. (1996). What is Strategy? *Harvard Business Review, 74*(6), 61-78.

Quora. (2010, August). *Which colleges and universities are pursuing the most innovative and interesting curriculum changes and teaching strategies?* Retrieved from Quora: http://www.quora.com/Which-colleges-and-universities-are-pursuing-the-most-innovative-and-interesting-curriculum-changes-and-teaching-strategies

Rodgers, S. M. (2005). The Use of Business Principles in Higher Education. *Academy of Human Resource Development International Conference. Symp. 54-2*, pp. 1247-1254. Estes Park, CO: Online Submission.

Rosenberg, M. (2011, March 2). *20 Biggest Cities - Largest Cities in the United States Based on Population*. Retrieved from About.com: http://geography.about.com/od/lists/a/20citiesus.htm

Saletan, W. (2011, August 9). *Michael Crow, the university president who is trying to remake the American public university*. Retrieved from Slate: http://www.slate.com/id/2300739/

Scott, G. (2003, November/December). Effective Change Management in Higher Education. *Educause*, 64-80.

Serban, A. M., & Burke, J. C. (1998). *The Impact of State Budget Reductions in the 1990's: A View of Public Higher Education in Six States.* Albany: Rockefeller Institute.

Shoultz, K. (2011, April 7). *Tuition, fee increases approved*. Retrieved from StatePress.com: http://www.statepress.com/2011/04/07/tuition-fee-increases-approved/

170

Slaughter, S., & Leslie, L. L. (1997). *Academic Capitalism: Politics, Policies, and the Entrepreneurial University.* Baltimore, MD: Johns Hopkins.

Slaughter, S., & Rhoades, G. (2004). *Academic Capitalism and the New Economy: Markets, State, and Higher Education.* Baltimore, MD: Johns Hopkins.

Strebel, P. (1996, May - June). Why Do Employees Resist Change? *Harvard Business Review*.

Stripling, J. (2010, July 16). *As the Crow Flies*. Retrieved January 4, 2011, from Inside Higher Education: http://www.insidehighered.com/news/2010/07/16/crow

Surowiecki, J. (2010, October 18). The Next Level. *The New Yorker*, p. 28.

Theil, S. (2008, August 9). The Campus Of The Future. *Newsweek*.

Thelin, J. R. (2004). *A History of American Higher Education.* Baltimore, MD: Johns Hopkins.

Toma, J. D. (2010). *Building Organizational Capacity: Strategic Management in Higher Education.* Baltimore, MD: Johns Hopkins.

U.S. Census Bureau. (2010, March 23). *Census Bureau Reports State Government Tax Collections Decrease $67 Billion in 2009*. Retrieved January 26, 2011, from U.S. Census Bureau: http://www.census.gov/newsroom/releases/archives/governments/cb10-42.html

U.S. Department of Education. (2009). *Digest of Education Statistics, 2008* (Vols. NCES 2009-020). Washington, D.C.: U.S. Department of Education. Retrieved from National Center for Education Statistics.

U.S. Department of Education. (2010). *Digest of Education Statistics*. Retrieved Jan 8, 2011, from National Center for Education Statistics: http://nces.ed.gov/programs/digest/

Vaughan, C. (2011, September). Cultivating Excellence. *The Magazine of Arizona State University, 15*(1), pp. 40-45.

Volz, D. (2010, September 15). *New American Problem*. Retrieved from StatePress.com: http://www.statepress.com/2010/09/15/new-american-problem/

Weick, K. E. (1976, March). Educational Organizations as Loosely Coupled Systems. *Administrative Science Quarterly, 21*(1), 1-19.

Weisbrod, B. A., Asch, E. D., & Ballou, J. P. (2008). *Mission and Money: Understanding the University.* New York, NY: Cambridge University Press.

Wilson, R. (2010, February 7). *For-Profit Colleges Change Higher Education's Landscape: Nimble companies gain a fast-growing share of enrollments*. Retrieved January 17, 2011, from Chronicle of Higher Education: http://chronicle.com/article/For-Profit-Colleges-Change/64012/

Wilson, R. (2010, February 7). *For-Profit Colleges Change Higher Education's Landscape-Nimble companies gain a fast-growing share of enrollments*. Retrieved from The Chronicle of Higher Education: http://chronicle.com/article/For-Profit-Colleges-Change/64012/

Yin, R. K. (2008). *Case Study Research: Design and Methods* (4th ed.). California: Sage Publications.

Zemsky, R. (2009, August 3). *Will Higher Education Ever Change as It Should?* Retrieved November 28, 2010, from The Chronicle of Higher Education: http://chronicle.com/article/Will-Higher-Education-Ever/47536

Zusman, A. (2005). *Challenges Facing Higher Education in the Twenty-First Century* (2nd ed.). (P. G. Altbach, R. O. Berdahl, & P. J. Gumport, Eds.) Baltimore, MD: Johns Hopkins.

APPENDIX A

SEMI-STRUCTURED INTERVIEW PROTOCOL

1. Describe your involvement in the [Design Aspiration] initiative undertaken at
   ASU.

2. What led to the "New American University" model being aspired to?

    a. What were the academic goals of this direction?

    b. What were the economic goals of this direction?

    c. What were the community impact goals of this direction?

    d. What was/is the overall plan to bring such a vast undertaking from
       aspiration to actualization?

3. What led to the [Design Aspiration] being selected as one of the key areas of
   focus for change at ASU?

    a. Are you familiar with similar undertakings at other institutions? What are
       they?

    b. What was the institutional environment that led to this area being
       important?

    c. Were there external factors (industry or partners) that influenced this
       decision?

    d. Who were the major players as this decision was vetted (pro/con)?

4. Describe the university impact in regards to [Design Aspiration] prior to its development, and what has changed since its inception.

    a. When was this Design Aspiration codified?

    b. What has been achieved from the clarification of this Design Aspiration?

    c. What has been eliminated or removed due to the pursuit of this aspiration?

    d. If there was anything that you could change about the impacts of this Design Aspiration, what would it (they) be?

5. What were the initial envisioned changes that would occur from undertaking this new model for a university?

    a. If they have been realized, please describe how and when.

    b. Were there unintended changes that have occurred as a result of this new model?

6. Overall, how has Arizona State University been impacted by these changes?

    a. How has the institution benefited from these changes?

    b. What are the evidences that can be pointed to demonstrate the impact of these changes?

    c. What, if anything, has been lost from the institutional environment? Is this viewed as a positive or negative impact?

7. What have been the fiscal impacts of [Design Aspiration] on the university or particular departments or programs?

    a. What was the approach to addressing or utilizing these fiscal impacts?

    b. How successful have these approaches been?

    c. If starting all over, what would you recommend as the fiscal approach to [Design Aspiration]?

8. If you were to move to another institution and had the opportunity to undertake a new strategic model for that institution, what aspects of the "New American University" would you choose to bring with you to that?

APPENDIX B

INVITATION TO STUDY PARTICIPANTS

Date

Dear   :

I am a doctoral student in Higher Education Administration at the Institute of Higher Education at The University of Georgia. I invite you to participate in a research study entitled Changing Higher Education: Arizona State University's "New American University" Examined. The purpose of this study is to explore ASU's approach to redesigning the university model and what gains or losses have occurred through this process.

Your participation will involve an interview session and should only take about 45 minutes to complete. Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. The results of the research study may be published, but if you desire you may review the transcription of our conversation prior to your comments being used.

The findings from this project will provide information and perhaps direction to other institutions on how ASU is approaching some of the serious challenges various schools

are facing with the various external pressures from government, communities, and students on universities.

If you have any questions about this research project, please feel free to contact me by email at jwm@uga.edu or by phone (404) 583-3485. My dissertation chair is James C. Hearn, who can be reached at jhearn@uga.edu or (706) 542-8729. Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, 612 Boyd GSRC, Athens, Georgia 30602-7411; telephone (706) 542-3199; email address irb@uga.edu.

I am also attaching a consent form for your review and further information. Please indicate if you wish to be a part of this study via e-mail or phone.

Thank you for your consideration! Please keep this letter for your records.

Sincerely,

John Mitchell, EdD Candidate

Institute of Higher Education

University of Georgia

University

APPENDIX C

INTERVIEWEE CONSENT FORM

I, _____, agree to participate in a research study titled "Changing Higher Education: Arizona State University's "New American University" Examined" conducted by John Mitchell from the Institute of Higher Education at the University of Georgia (404-583-3485) under the direction of Dr. James C. Hearn, Institute of Higher Education, University of Georgia (706-542-8729). I understand that my participation is voluntary. I can refuse to participate or stop taking part at anytime without giving any reason, and without penalty or loss of benefits to which I am otherwise entitled. I can ask to have all of the information about me returned to me, removed from the research records, or destroyed.

The reason for this study is to better understand how change has occurred at Arizona State University (ASU) around the Design Aspirations set up under the "New American University" concept being pursued. If I volunteer to take part in this study, I will be asked to do the following things:

1)   Answer questions about my involvement in specific Design Aspirations of ASU.

2)   Share my opinion about what has been undertaken, how well it has worked and the effects of such actions at the institution.

3)   Provide additional insight that may be valuable to others seeking to change in similar ways.

I will participate in an interview of approximately 60 minutes in length. The interview will be audio-recorded and the recordings will be destroyed once transcribed. Additionally, there may be follow up questions via e-mail or phone in order to clarify certain points made during the interview.

The benefits for me are that information provided may help other institutions better handle change processes that ASU has already or is currently experiencing.

No risk is expected from the interview process.

I will receive no compensation or remuneration for my participation in this study.

Participation and responses may be made public as part of the research. If desired, I can elect to review the transcript of the interview prior to its inclusion in the research to ensure the comments shared are indeed those I desire to convey. The use of the information may be utilized in subsequent directly related articles or studies by the researcher, if so participant will be contacted prior to use.

The investigator will answer any further questions about the research, now or during the course of the project.

I understand that I am agreeing by my signature on this form to take part in this research project and understand that I will receive a signed copy of this consent form for my records.

_John W. Mitchell__   _____   _____

NAME OF RESEARCHER   SIGNATURE   DATE
Telephone: (404)583-3485
Email: jwm@uga.edu

_____   _____   _____

Name of Participant   Signature   Date

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu.

APPENDIX D

IRB APPROVAL LETTER

PROJECT NUMBER: 2011-10806-0

TITLE OF STUDY: Changing Higher Education: Arizona State University's New

American University Examined

PRINCIPAL INVESTIGATOR: Dr. James C. Hearn

Dear Dr. Hearn,

Please be informed that the University of Georgia Institutional Review Board (IRB)

reviewed and initially approved your above-titled proposal through the exempt

(administrative) review procedure authorized by 45 CFR 46.101(b)(2) - Research

involving the use of educational tests (cognitive, diagnostic, aptitude, achievement),

survey procedures, interview procedures or observation of public behavior, /unless:/ (i).

the information obtained is recorded in such a manner that human participants can be

identified, directly or through identifiers linked to the participants; /and /(ii). any

disclosure of the human participants' responses outside the research could reasonably

place the participants at risk of criminal or civil liability or be damaging to the

participants' financial standing, employability, or reputation.

Please note there may still be revisions requested via email during the final approval

process. Final approval will be granted by the IRB Chairperson and sent via campus mail.

Please remember that no change in this research proposal can be initiated without prior review by the IRB. Any adverse events or unanticipated problems must be reported to the IRB immediately. The principal investigator is also responsible for maintaining all applicable protocol records (regardless of media type) for at least three (3) years after completion of the study (i.e., copy of approved protocol, raw data, amendments, correspondence, and other pertinent documents). You are requested to notify the Human Subjects Office if your study is completed or terminated.

Good luck with your study, and please feel free to contact us if you have any questions. Please use the IRB number and title in all communications regarding this study.

Sincerely,

LaRie Sylte

Human Subjects

APPENDIX E

STRUCTURAL CHANGES AT ASU

Below is listed academic units disestablished, created, and new degree programs.

Information provided courtesy of ASU's Office of the President.

<u>Academic Unit Disestablishments</u>

Academic Unit Name:	Disestablishment or other Relevant Information:
School of Applied Arts and Sciences (SAAS)	*School Disestablished*
School of Global Management and Leadership (SGML)	*Merged with WP Carey School of Business*
College of Human Services	*College Disestablished*
School of Aging and Lifespan Development	*School Disestablished*
School of Educational Innovation and Teacher Preparation (SEITP)	*School Disestablished – programs and faculty merged into the College of Teacher Education and Leadership (CTEL)*
Mary Lou Fulton College of Education (MLFCOE)*	*College Disestablished*
Mary Lou Fulton Institute and Graduate School of Education (MLFIGSE)**	*Institute Disestablished* § *Some programs merged into CTEL* § *Some programs merged into the School of Letters and Sciences*
School of Geographical Sciences, College of Liberal Arts and Sciences (CLAS)	*School Disestablished* *Follow-up action – established the School of Geographical Sciences and Urban Planning within CLAS*
School of Planning, College of Design	*School Disestablished* *Follow-up action – established the School of Geographical Sciences and Urban Planning within CLAS*
Katherine K. Herberger College of the Arts *** **College of Design**	*College Disestablished* *College Disestablished*
School of Health Management and Policy, WP Carey School of Business	*Please note that we do not have any formal correspondence regarding the disestablishment of this School, however, it no longer exists within the Carey School.*

1. Please note that this list only contains disestablished Colleges, Institutes or Schools.

2. This list does not contain Departments, Divisions or Programs.

3. Please note that MLFCOE* was first disestablished and then reorganized into the Mary Lou Fulton Institute and Graduate School of Education.

4. MLFIGSE** was established to administer graduate-level education programs, not related to teacher preparation.

5. Katherine K. Herberger College of the Arts was first disestablished and then reorganized into the Herberger Institute for Design and the Arts.

Source: ASU Office of the President

New Colleges/Schools at ASU

- The Mary Lou Fulton Teachers College was created through merging the Mary Lou Fulton Institute and Graduate School of Education with the College of Teacher Education and Leadership.

- The Herberger Institute for Design and The Arts was created by merging the College of Design with the Herberger Institute for the Arts.

- New schools in the Ira A. Fulton Schools of Engineering

    o School of Biological and Health Systems Engineering

    o School of Sustainable Engineering and the Built Environment

    o School of Computing, Informatics, and Decision Systems Engineering

    o School of Electrical, Computer, and Energy Engineering

    o School for Engineering of Matter, Transport and Energy

- New schools in the College of Liberal Arts and Sciences

    o School of Earth and Space Exploration

    o School of Geographical Sciences and Urban Planning

    o School of Politics and Global Studies

    o School of Historical, Philosophical and Religious Studies

    o School of Human Communication

    o School of Human Evolution and Social Change

    o School of International Letters and Cultures

    o School of Life Sciences

    o School of Mathematical and Statistical Sciences

    o School of Social and Family Dynamics

- o   School of Social Transformation

- o   School of Transborder Studies

- New schools in the College of Public Programs

  - o   School of Community Resources and Development

  - o   School of Criminology and Criminal Justice

- School of Sustainability

- Walter Cronkite School of Journalism and Mass Communication

- The School of Letters and Sciences

- School of Nutrition and Health Promotion

- College of Technology and Innovation

- New College of Interdisciplinary Arts and Sciences

New Academic Degree Programs -- Undergraduate

1990	B.S.P. in Urban Planning
1992	B.S.L.A. in Landscape Architecture
1994	B.A. in Interdisciplinary Arts & Performance
1995	B.I.S. in Interdisciplinary Studies
1995	B.A. in Transborder Chicana/o and Latina/o Studies
1997	B.A.S. in Applied Science
1999	B.A. in African and African American Studies
1999	B.S. in Computer Systems
1999	B.S. in Molecular Bioscience & Biotechnology
1999	B.S. in Biochemistry
1999	B.S. in Applied Psychology
2000	B.S. in Nutrition
2001	B.S. in American Indian Studies
2001	B.S. in Exercise & Wellness
2002	B.S. in Applied Computing
2003	B.A. in Biochemistry
2004	B.S. in Applied Computer Science
2004	B.S.E. in Engineering
2005	B.L.S. in Liberal Studies
2005	B.A. in Global Studies
2005	B.A. in Ethnicity, Race and First Nations Studies
2005	B.A. in Film
2005	B.S. in Environmental Technology Management
2005	B.S. in Graphic Information Technology
2005	B.S. in Technological Entrepreneurship and Innovation Management
2006	B.A. in Design Studies
2006	B.A. in Urban and Metropolitan Studies
2006	B.S. in Earth and Space Exploration
2006	B.S. in Non-Profit Leadership and Management
2006	B.S. in Tourism Development and Management
2006	B.S. in Urban and Metropolitan Studies
2006	B.A. in History and Culture
2006	B.A. in Sustainability
2006	B.S. in Air Traffic Management
2006	B.S. in Sustainability
2007	B.A. in Global Health
2007	B.A. in Religion and Applied Ethnic Studies
2007	B.A. in Business
2008	B.S. in Aging and Lifespan Development
2008	B.S. in Science, Technology, and Society
2008	B.A. in International Letters and Cultures

2008	B.S. in Applied Mathematics
2008	B.S. in Youth Leadership Development
2008	B.S. in Applied Mathematics for the Life and Social Sciences
2009	B.S. in Biomedical Informatics
2009	B.A. in The Arts
2009	B.G.S. in General Studies
2009	B.A. in Asia Studies
2009	B.S. in Legal Studies
2009	B.A. in Physics
2010	B.A. in Earth and Environmental Studies
2010	B.A. in Justice Studies
2010	B.S. in Anthropology
2010	B.S. in Public Service and Public Policy
2010	B.A. in Asian Pacific American Studies
2010	B.A. in Jewish Studies
2010	B.S. in Informatics
2010	B.S.E. in Engineering Management
2010	B.S. in Statistics
2010	B.S. in Software Engineering
2011	B.S. in Food Industry Management
2011	B.S.E. in Construction Engineering
2011	B.A. in Life Sciences

New Academic Degree Programs -- Graduate

Year	Program
1990	M.S. in Statistics
1990	Ph.D. in Social Work
1991	D.M.A. in Music
1991	M.S. in Construction Management
1992	M.S. in Molecular & Cellular Biology
1992	Ph.D. in Molecular & Cellular Biology
1995	Ph.D. in Design, Environment and the Arts
1995	Ph.D. in Family & Human Development
1996	M.P.E. in Physical Education
1998	M.Eng. In Engineering
1999	Ph.D. in History & Theory of Art
1999	Ph.D. in Philosophy
1999	M.A. in Criminal Justice
2000	M.S. in Nutrition
2000	M.S. in Materials Engineering
2000	M.S.E. in Materials Engineering
2000	M.A. in Communication Studies
2000	M.A. in Interdisciplinary Studies
2001	M.A. in Asian Languages & Civilizations
2001	M.S. in Exercise & Wellness
2001	P.S.M. in Computational Biosciences
2003	M.S. in Applied Psychology
2003	Ph.D. in Religious Studies
2003	Au.D. in Audiology
2004	M.A.S. in Geographic Information Systems
2004	LL.M. in Biotechnology and Genomics
2004	M.C.St. in Computing Studies
2004	M.L.St. in Legal Studies
2005	LL.M. in Tribal Policy, Law and Govt
2005	M.L.S. in Liberal Studies
2005	M.M. in Music Therapy
2005	Ph.D. in Physical Activity, Nutrition and Wellness
2005	Ed.D. in Leadership and Innovation
2006	M.P.P. in Public Policy
2006	M.S. in Astrophysics
2006	Ph.D. in Astrophysics
2006	M.A. in Sustainability
2006	M.H.I. in Healthcare Innovation
2006	M.R.E.D. in Real Estate Development
2006	M.S. in Biochemistry
2006	M.S. in Biomedical Informatics

2006	M.S. in Sustainability
2006	Ph.D. in Biochemistry
2006	Ph.D. in Sustainability
2006	M.Np.S. in Nonprofit Studies
2007	M.A. in Social Justice and Human Rights
2007	M.A.S. in Geographic Education
2007	Ph.D. in Gender Studies
2007	Ph.D. in Media Arts and Sciences
2007	D.N.P. in Advanced Nursing Practice
2007	Ph.D. in Global Health
2007	Ph.D. in Nursing and Healthcare Innovation
2007	M.S. in Criminology and Criminal Justice
2007	Ph.D. in Biological Design
2007	Ph.D. in Construction Management
2007	Ph.D. in Criminology and Criminal Justice
2007	Ph.D. in Environmental Social Science
2007	Ph.D. in Biomedical Informatics
2007	Ph.D. in Community Resources and Development
2007	Ph.D. in Human and Social Dimensions of Science and Technology
2008	M.A.S. in Infant and Family Practice
2008	M.A.S. in Marriage and Family Therapy
2008	M.L.A. in Landscape Architecture
2008	M.S. in Aging and Lifespan Development
2008	M.U.D. in Urban Design
2008	P.S.M. in Nanoscience
2008	Ph.D. in Applied Linguistics
2008	Ph.D. in Neuroscience
2008	Ph.D. in Applied Mathematics for the Life and Social Sciences
2008	Ph.D. in Applied Mathematics
2008	Ph.D. in Mathematics Education
2008	Ph.D. in Statistics
2008	M.A. in Applied Ethics and the Professions
2008	M.S. in Clinical Research Management
2008	Ph.D. in Environmental Life Sciences
2009	P.S.M. in Science and Technology Policy
2009	Ph.D. in East Asian Languages and Civilizations
2009	D.B.H. in Behavioral Health
2009	Ph.D. in Journalism and Mass Communication
2009	M.A.S. in American Media and Popular Culture
2009	M.S. in Psychology
2009	Ph.D. in Music
2009	M.A. in Global Health
2009	M.P.H. in Public Health

2009	M.S. in Commerce
2009	Ph.D. in Animal Behavior
2009	Ph.D. in Evolutionary Biology
2009	Ph.D. in Transborder Studies
2010	L.L.M. in Laws
2010	M.S. in Regulatory Science and Health Safety
2010	P.S.M. in Solar Energy Engineering and Commercialization
2010	Ph.D. in Simulation, Modeling & Applied Cognitive Science
2010	Ph.D. in Exploration Systems Design
2011	M.S.E. in Construction Engineering
2011	M.A.S. in Health Informatics
2011	M.A.S. in Transborder Studies
2011	M.S. in Computer Engineering
2011	Ph.D. in Computer Engineering
2011	M.A. in Museum Studies
2011	M.A.S in Sustainable Tourism