NORTHERN ARIZONA UNIVERSITY

Long Range Plan

2025

October 2012

Background

In fall 2005, an ad-hoc long-range planning committee[1] published a report that explored possible impacts of demographic shifts, climate change, resource limitations, realignment of global economies, technological communication advances, changes in public funding for higher education, and uncertainty of planning. The report further discussed a number of paths to respond to the changing planning environment with a goal to re-envision the university in 2035.

Much has changed since 2005. The university funding structure has been dramatically altered; economic conditions, and especially employment rates nationwide, have declined with few signs of improvement in sight; and public pressure on universities to demonstrate accountability has increased substantially. Meanwhile, the Arizona Board of Regents adopted a system-wide strategic plan and identified very specific performance targets for the universities to achieve by 2020. The Arizona legislature changed enrollment-growth-based funding to performance funding; in allocating state monies, it now considers outcomes, such as degrees awarded, completed student credit hours, and research expenditures. During these years of significant change, the university's enrollment has grown dramatically, presenting both opportunities and challenges for the future.

For the university to continue to provide relevant services to the Arizona public in a new environment, it is necessary to plan for realignment of business processes, systems, and structures (academic and administrative). The proposed Long Range Plan, with a planning horizon of 10 to 15 years, provides a framework for the university to adapt to the new fiscal reality and demonstrate greater resilience in times of significant environmental shifts.

The recommendations articulated in this plan should be considered immediately as their full implementation might require many months and the full effects several years.

[1] The members of the committee and their respective titles in 2005 were David Bousquet, Vice President for Enrollment and Student Affairs; Dr. Marcus Ford, Professor of Humanities (chair); Dr. Laura Huenneke, Dean of the College of Engineering and Natural Sciences and Professor of Biology; Dr. George "Wolf" Gumerman, Professor of Anthropology and Chair; Dr. Karen Pugliesi, Vice Provost for Undergraduate Studies and Professor of Sociology; Dr. Linda Shadiow, Professor of Education; Dr. Thomas Sisk, Professor of Environmental Sciences; Dr. Octaviana Trujillo, Professor of Applied Indigenous Studies and Director; and Dr. Miguel Vasquez, Professor of Anthropology.

2012 Planning Process

In October 2011, the Strategic Planning and Budget Council appointed a Long Range Plan Committee and approved a 12-month planning process, results of which are discussed in this document. The committee was charged with developing a plan that identifies the university's strategic advantages; thoroughly explores trends and risks in the context of future economic, technological, environmental, social, demographic, and other conditions; and provides specific recommendations for the university to realize its vision.

The committee met nine times: four meetings focused on trends affecting higher education; one meeting identified the university's strategic advantages; two retreat sessions and two shorter meetings were devoted to framing the university vision and articulating recommendations. Internal experts led discussions on trends: Laura Huenneke briefed the committee on environmental trends, Ron Gunderson provided valuable insight on demographics and economic outlook, Christy Farley identified the most significant trends in the K-12 system and the political environment, and Don Carter summarized the most significant developments in educational technology.

As part of the learning process, the committee reviewed numerous reports, presentations, and blog entries published by experts and research institutes, as well as many newspaper, magazine, and scholarly articles. The bibliography includes a partial list of resources that informed the committee's deliberate discussions reported in this document. Although this report is subjective and not all may agree with its assertions and the validity of the recommendations made, it conscientiously reflects the collective thinking of the committee, which spent long hours debating higher education issues and considering long-term impacts of the external environment on the university.

2012 Long Range Plan Committee – Roster

1. Jennus Burton
   Vice President, Finance & Administration
2. David Camacho
   Associate Vice President, Inclusion
3. Don Carter
   Director, E-Learning
4. Carl DeRosa
   Professor, Physical Therapy & Athletic Training
5. Erin Grisham
   Executive Director, Educational Support
6. Pat Haeuser
   Vice President, Institutional Effectiveness
7. Laura Huenneke
   Provost

8. Paul Jagodzinski
   Dean, College of Forestry, Engineering, and Natural Sciences
9. Cynthia Kosso
   Associate Vice President, Enrollment Management and Student Affairs
10. Jane Kuhn
    Associate Vice President, Enrollment Management and Student Affairs
11. Ramona Mellott
    Dean, Graduate College
12. Michelle Parker
    Legal Counsel
13. Karen Pugliesi
    Vice Provost, Academic Affairs & Dean, University College
14. Eva Putzová
    Director, University Strategic Initiatives
15. Margot Saltonstall
    Associate Director, Enrollment Management and Student Affairs
16. Walter Vannette
    Professor, Anthropology
17. Jason Wilder
    Associate Professor, Biological Sciences

Report prepared by: Eva Putzová

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Vision

Northern Arizona University is proud of its distinctive characteristics and intends to further enhance them. Students, faculty, and staff appreciate the university's mission, which is grounded in the needs of the Colorado Plateau region and its people. The university's core has always been, and remains to be, undergraduate education based on a close relationship between students and teachers, supported by the staff's commitment to create an effective learning environment. The university engages in focused research and public service that builds on external collaboration and team and interdisciplinary approaches. Research and other scholarly activities provide students with meaningful hands-on opportunities to apply and enhance their skills and knowledge while linking the university to the region's economic, environmental, and cultural milieu. The university's commitment to innovation and its record of innovative approaches to improve student learning, discovery, and service to the public permeate the institutional culture.

Human capital is the university's most important asset. The transmission of knowledge may have changed with technology, but it is the interaction with faculty that develops students' cognitive capacities, challenges their perspectives of the world, and cultivates their ethical reasoning.

Geographically and culturally close to the tribal communities, the university is committed to be the college of choice for Native American students and to support their communities through extensive public service, research, and outreach. Creating an inclusive community of learners, the university fosters global learning and sustainability as major themes embedded in curricula across all disciplines.

The university's unique characteristics, culture, and values provide a framework for and drive the long-range plan recommendations.

Trends

The higher education sector is subject to an ever-increasing pace of change. While many are alarmed by the growing commercialization of education and negative effects of market pressures, others see opportunities for efficiencies, greater effectiveness, and collaboration and partnerships. To craft recommendations, the Long Range Planning Committee considered trends in the following areas:

a. Economic Outlook and Demographics
b. Natural Resources and Environmental Changes
c. K-12 and Political Environment
d. Technology and Future of Learning

The following section identifies only a few of the most significant trends in each area, as discussed by the committee. Other aspects of the external environment not covered in this document might have significant, unforeseen implications for Northern Arizona University and higher education in general.

Economic Outlook and Demographics

- A slow-growth or steady-state economy
- Growing wealth inequality along class and age lines
- The changing nature of employment options
- Increased competition
- Globalization: The Rise of the Rest
- An aging population
- Growing Latino and other minority populations

The economic environment is transforming the face of higher education in a profound way. The expansion periods and long economic boom of the 20th and early 21st centuries are unlikely to characterize the next decades. Communities across the country are faced with growing wealth inequality and stagnating real wages. In Arizona, in addition to cyclical unemployment, structural unemployment plays a role in a weak economic recovery from the 2008 recession. Declining public support for education and pressure to apply similar accountability criteria to higher education as to the business sector will continue to affect the university funding structure. Unintended consequences of such public policies might include more sharply limited access to higher education for certain segments of the population and academic career options driven by students' economic status.

Improved efficiencies of globally competitive companies, technological advances, and sourcing practices are changing the types of jobs available to both new graduates and those already in the workplace. Employers are disaggregating jobs into specialized tasks, leading to the growth of part-time and contingent employment.

The strengthening of emerging economies in China, India, Brazil, and other populous countries is causing an increased demand for higher education. As the middle class in these countries grows, education becomes one of the top priorities for increasingly affluent families.

In the near future, competition among both public and private colleges and universities for first-time Arizona freshmen is likely to escalate as fewer students graduate from high school and the proportion of Latino high school graduates, who tend to have a lower college-going rate, grows. Shrinking numbers of college-age students in other states will also contribute to competition from other regions targeting our students.

Overall, the aging population will drive demand for programs that educate health care professionals. As the retirement age goes up, our college graduates entering the labor market will likely face increased competition unless new economic sectors emerge. A growing wealth gap between the young and old will likely increase the difficulty of financing college education for many families.

Implications

The Arizona public will likely demand higher education programs that lead to reliable employment options. The increasingly complex competitive environment will force the university to better differentiate its programming, possibly focus on a fewer areas of excellence, better articulate its market position to stakeholders, and diversify student recruitment.

Controlling the cost of education, while advancing quality and supporting greater access to education and higher achievement among historically underrepresented students, will continue to drive higher education policy discourse and practice.

The changing nature of jobs and employment opportunities presents a challenge for the education sector to identify the types of degrees and skills needed. More adult students will likely seek retraining or pursue college degrees as their career options evolve. The growing proportion of part-time employment, which often lacks retirement and health benefits, will in the long run increase demand for social services and increase competition for funding among state agencies, further decreasing the state's ability to fund public higher education.

The higher education sector of emerging countries with large populations, such as India, China, and Brazil, is yet to meet the growing demand of college-aspiring students. American universities, while facing more competition, especially from UK- and Australia-based institutions, are still well positioned to grow international enrollment and to develop institutional partnership models abroad.

Without a significant change in the national health care policy direction, the university will have to address the growing cost of health care benefits without compromising its ability to retain and hire highly qualified faculty and staff. The public university is a more complex enterprise than any entity in the business sector. Its governance structures, the nature of its core services, and its wide range of supporting functions make management practices that are designed to increase efficiency in the private sector more difficult to adapt.

Natural Resources and Environmental Changes

The American Southwest has been experiencing the most rapid warming in the nation. Continuing changes in the environment exacerbate challenges brought by increasingly scarce regional water supplies in an already arid and fire-prone landscape.

Impacts of environmental changes will affect food and water supplies, natural resources, ecosystems, and human life and property.

- Diminishing water supplies
- Growing energy cost
- Dry gets drier, wet gets wetter, and the extremes become more extreme more frequently
- Weak protection of natural resources in Arizona
- Abundant solar energy

Arizona is a net importer of energy, despite its vast renewable resource—solar energy. In the near future, we are likely to be affected by both water and energy access crises with solutions that depend more on the political environment than on technological advances. Without a strong, nationally supported renewable energy policy, the likelihood of rising energy costs is high. In the short term, a comprehensive regional water policy can address some of the legal challenges in respect to surface water supplies, but from a long-term perspective, focus on desalinization and water transportation technologies might be needed to solve the region's water shortage problems. The region will be subject not only to increasing chronic stresses but also to disruptions or "shocks" caused by increasingly extreme events—from catastrophic fire to interruptions of the energy supply and of services dependent upon that supply.

Implications

With an already hot Arizona climate becoming even more extreme, Flagstaff will be an even more desirable oasis for the metropolitan areas of Phoenix and Tucson. In the long term, this will likely drive housing costs up, thus affecting the university's competitiveness in the labor market, but it will also make the Flagstaff residential campus a more desirable destination in comparison to its sister institutions. Energy costs will continue to affect university operations, facilities management, and class scheduling.

Rapid environmental changes are likely to drive the need for regulations at local, state, national, and international levels. With increased urgency, both public and private sectors will develop and implement resiliency or adaptation plans and strategies to mitigate physical impacts on business operations. The universities preparing students for new professions addressing the challenges of a changing environment will have a competitive advantage.

The university is well-positioned to further build on its research and educational strengths in climate impacts, sustainable technologies, and community sustainability.

K-12 Environment

Arizona's K-12 public system and higher education face similar challenges. Diminishing state support, competition with other state agencies for the same resources, and proliferation of charter schools that often attract the best prepared students cause the public system to struggle with aging facilities and with challenges to meet increasingly stricter accountability measures.

- Decreasing funding and lack of support for education due to demographics
- Rural schools with more challenges
- Push for student-test-score-based teacher performance evaluation
- Aging facilities infrastructure

Due to its climate, Arizona is a popular retirement destination, which presents unique challenges in terms of voter support of education. This issue is reflected in the state's political discourse on funding allocation.

In addition, variability in quality among schools and districts is high. While many urban schools provide excellent learning opportunities as well as many services and amenities, rural communities often face difficulty hiring and

retaining highly qualified teachers and do not have the resources to provide students rich programming similar to their counterparts in more affluent districts.

Arizona policy makers support the national push for teacher performance evaluation based on student test scores. As data systems become more integrated, connecting student success to specific teacher performance creates accountability implications for the universities that certify these teachers.

It is unclear what effect stricter high school graduation standards will have on higher education: incoming freshmen might indeed become better prepared; learning might lag behind credentialing, leading to no significant change in college preparedness; or lower high school graduation rates might decrease freshman class sizes.

Implications

As K-12 struggles to improve learning, the university should be more closely involved in collaborative efforts to increase student success through the entire pipeline. With significant knowledge in curricular design, assessment, teacher development, cognitive psychology, and effective pedagogy, the university is well positioned to be a key partner in supporting the K-12 mission. ***In fact, from both financial and outcome perspectives, it is in the university's best interest to help the K-12 sector succeed and to engage more in shaping the K-12 learning experience.***

Understanding K-12 dynamics is important for university faculty and staff in their efforts to better align pedagogy and services with the needs and backgrounds of incoming students. The university is well positioned to build upon its long history and substantial record of achievement in preparing and supporting the state's K-12 teachers.

Technology

The technology environment is changing rapidly, and while specific developments in this area are difficult to predict, it is safe to posit that the trend toward *more, smaller, and faster* will continue. As cloud data storage solutions and software as a service replace the still ubiquitous client-server model, security will continue to be a critical factor in the university's information technology operations.

- More, smaller, faster
- Greater connectivity and system integration
- More intuitive technology
- Ubiquitous access
- Security issues

Better systems integration and more intuitive interfaces will make technology even more accessible and user-friendly, impacting education and its delivery in profound ways.

Rapid advances in data storage, collection, and sharing will impact research opportunities and practices, drive demand for academic programs preparing business analysts and other professionals, and improve decision-making in operations through real-time data analytics.

The use of technology is transforming our society culturally, affecting verbal and written interactions. Also, access to and use of technology vary significantly across socioeconomic backgrounds.

Implications

Technology is a powerful tool to facilitate learning. Instantaneous access to information in a classroom setting reduces the need for lecture-style teaching and shifts the focus to *learning by doing*. Rapid changes in technology and its potential for improving the learning process demand a systemic approach to continuous faculty development and to hiring practices that ensure a good fit between the institution and its faculty and staff. Ever-changing technology requires institutional support and a strong commitment to continuing professional development and training for faculty and staff. As application services, data storage, and hardware solutions evolve, the focus of the information technology services function changes and adapts.

Recommendations

It is difficult to accurately predict the programs and fields that will emerge as social priorities in the future: the volume of knowledge doubles approximately every seven years. However, it is inevitable that societal needs will demand creative problem solvers and adaptable learners. To educate future innovators, we should move away from a very narrow disciplinary focus: "Innovation experts and consultants stress repeatedly that innovation isn't a matter of subject knowledge. It's about thinking in flexible, integrative, and multidisciplinary ways, across many fields and types of knowledge" (Wallace, 2011). To respond to rapid increases in the knowledge base and in the needs of our communities, the university should approach program development with more flexibility while staying true to the ethos of shared governance. This will require connecting faculty (and hence the curriculum) more directly to changing societal demands.

To ensure the fiscal sustainability of the university—while providing wide access to higher education among communities across the state and building students' multicultural competencies—the institution should continue to enhance its recruitment efforts in multiple market segments, including residential students, adult learners, and out-of-state and international students. Development and fundraising will become another important strategy in diversification of revenue streams.

To strengthen Northern Arizona University's key characteristics and remain resilient in a changing environment, the Committee makes the following recommendations:

1. **Cultivate a more flexible and nimble organization that is better prepared to seek internal and external opportunities for improvement and respond to changes in the environment.**
    a. Improve the process for **curricular changes**. The university recognizes the effectiveness of experiential learning and the need for curricula to reflect external trends. To ensure that academic planning addresses these and other issues, the current process must be reviewed and revised. Through purposeful academic planning and processes, the university will better deliver programming that is responsive to the needs of our communities.
    b. Identify ways to develop, fund, and support a **focused research agenda**. While the university's research expertise spans many disciplines, clusters of research excellence, if supported, can further the university's competitive advantage, advance our knowledge of the world, and substantially contribute to addressing some of the most pressing issues of our region.
    c. Reward good initiatives and approaches. Identify a method to **evaluate and reward collective**—not just individual—efforts, eliminate disincentives that hinder collaboration, and support a

culture of public rituals that highlight the contributions employees make to the university. This will support a unified vision of the university as one community rather than a collection of independent colleges, divisions, and departments driven by their own agendas.

2. **Focus on quality, academic success, and making a difference in student life.**
    a. Fully implement an **intentional curriculum** through the alignment of explicit learning outcomes, strategic learning design, and meaningful academic assessment to enhance academic success, while also developing incentive systems and providing professional support opportunities to continue and maximize the achievement of educational excellence.
    b. Expand the footprint of **experiential learning** in degree program curricula to increase student preparation for dynamic careers and to reduce the need for incremental additions to our capital assets as enrollment grows.
    c. Adapt **business and academic practices** and policies to focus on quality and impact, including statements of expectations for faculty that reflect a focus on student learning. Clarify the notion of academic freedom and how it relates to quality, effectiveness, and governance.
    d. Adapt protocols for **recruitment and development of faculty** to create a mix of academic personnel who have the capacities and commitment to support achievement of our strategic and long-term goals. Develop models for appointment of faculty that allow for flexible assignments across units and programs.
    e. Communicate the university's focus on quality education through **marketing messaging**, reflecting both the individual and public benefits of such education.
    f. Identify a strategy to **collaborate with the K-12** system and community colleges in a systemic manner to improve college readiness and the college-going rate and reduce the need for remediation. Become a champion of and drive the initiative for curricular cohesion across all educational levels and improve gender diversity within all disciplines. Consider repositioning the College of Education to be a leader in advancing practice in curricular design, pedagogy, assessment, teacher success, and teacher development.
    g. Explore initiatives that **make education affordable** for students. Monitor and seek solutions to address increasing student debt.

3. **Optimize operational structures to foster financial sustainability and organizational effectiveness.**
    a. Adapt an **academic calendar and class scheduling** to maximize use of existing facilities and accommodate a growing student population. Improve class identification and alignment with classroom facilities. Explore a regular, three-session academic calendar.
    b. Ensure that the organizational structure supports institutional purpose and effectiveness. Consider how the organizational structure and culture can support a truly **interdisciplinary approach** to education across all colleges.
    c. Facilitate student success while maximizing the **effectiveness of resource allocation**. Employ pedagogically effective technology supported by student learning services and professional development opportunities to faculty. Where appropriate, encourage and incentivize hybrid course development and delivery.
    d. Strengthen fundraising and development. Cultivate relationships with students, alumni, employees, and retirees to build a strong community of the **university's life-long supporters**. Invest in building relationships with other potential partners and supporters.
    e. Explore self-sufficiency in **energy generation** to offset increasing costs of utilities, and frame operational planning in terms of resiliency and preparedness. Consider adopting inspiring goals, such as self-generating 30 percent of energy by 2030.

4. **Diversify the student body to respond to changing demographics and the need to prepare students to operate in a multicultural, global society.**
    a. Increase the impact that international students have on the resident students' understanding of global society. Forge closer, more **meaningful interactions between international and domestic students** as a way to complement global education efforts.
    b. Focus enrollment management and student support services to help the university **better reflect the diversity of the Arizona population**. Build a college-going culture among first-generation and historically underrepresented student populations through community development projects and community service programs. Continue emphasizing the needs of transfer students and their integration into the campus life.
    c. Create **alternative pathways for non-traditional students**. Provide a support system to ensure their success in seeking re-specialization or completing the first degree. Continue to explore multiple delivery formats or program structures that can address the needs of different student populations.

Bibliography

Buizer, J. L., Overpeck, J., & Springer, A. (Panelists). (2011). *Climate Change in Arizona* [Video].

Davidson, C. N. (2011, August 26). Collaborative Learning for the Digital Age. *The Chronicle*.

Gunderson, R. (2011). Flagstaff and Regional Economic Outlook.

Institute of International Education. (2011). *Open Doors.*

Mankiw, G. (2011, January 10). *How much unemployment is structural?* . Retrieved August 1, 2012, from Greg Mankiw's Blog: Random Observations for Students of Economics: http://gregmankiw.blogspot.com/2011/01/how-much-unemployment-is-structural.html

McKinsey Global Institute. (2011). *An Economy that works: Job creation and America's future.* McKinsey&Company.

Mishel, L., & Shierholz, H. (2011, March). *The Sad but True Story of Wages in America.* Economic Policy Institute.

O'Hare, W., Mather, M., & Dupuis, G. (2012). *Analyzing State Differences in Child Well-Being.* Foundtaion for Child Development.

Pew Center on Global Climate Change. (2011). *Climate Change 101: Understanding and Responding to Global Climate Change.*

Sellingo, J. (2011, September 27). If Engineers Were to Rethink Higher Ed's Future. *The Chronicle*.

Sparks, E., & Waits, M. J. (2011). *Degrees for what Jobs?* NGA Center for Best Practices.

The Chronicle. (2011, August 28). Politics and the University: Views from the Campuses. *The Chronicle*.

United States Census Bureau. (2012). *Household Income Inequality within U.S. Counties: 2006-2010.* United States Census Bureau.

Yen, H. (2011, November 7). Wealth gap between young, old grows. *The Arizona Republic*.