DRAFT

SHAPING ALASKA'S FUTURE

Philosophy, Viewpoints, Effect Statements

EFFECTING A HIGHER EDUCATION TRANSFORMATION ACROSS THE UNIVERSITY OF ALASKA SYSTEM

UNIVERSITY of ALASKA
Many Traditions One Alaska

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INTRODUCTION

In October 2011, UA embarked on a series of more than 80 internal and external "listening sessions" held with stakeholders all across Alaska. The purpose of the listening sessions was to gather public and internal input that would help shape a collaborative and strategic shift within UA, so that our state's public university system can become the very best university possible for our students, employers, partners, the Alaska economy and our unique, Northern culture. We asked, "We are Alaska's university…how can we serve you better?"

About 70 percent of the feedback was positive, even enthusiastic, about the difference the university makes in the lives of individuals and the health of communities and the state's economy. About 30 percent, however, was focused on areas where we can do better. In today's fast-paced and quickly changing higher education landscape, with more demands for accountability at the state and federal levels and in times of tightening financial resources, UA must embrace a culture of continuous improvement.

This effort is now coming to the point of action. Work teams will be formed, and initiatives created. We're calling this phase "Shaping Alaska's Future" as we work to shape our own future, for a highly relevant, dynamic and effective UA. Your partnership and engagement is crucial to the university's success.

Some of these issues or challenges are not, of course, the university's alone to solve. We must partner with key organizations, institutions, school districts, state and national leaders and others to tackle these issues to bring about the best possible outcomes.

Shaping Alaska's Future is a work in progress. From here, the university will form work teams to tackle the issues identified. This document represents only a starting point. Ultimately, it will serve as a reference in solving some of the most difficult issues we face as a university within the broader educational landscape of Alaska.

About this Document:
This document draws from hundreds of public contacts, contemporary articles, papers, speeches, and reports regarding where higher education is headed, or should be headed. Starting from that broad perspective, it then addresses the subject more specifically as it relates to the UA system in Alaska. Finally, the document suggests a way to address pressing institutional needs using a logical process called Effects Based Thinking.

Part 1 explains why UA needs to take stock of itself. This establishes the foundational underpinning of Shaping Alaska's Future.

Part 2 presents multi-sourced observations and opinions, sometimes taken verbatim, from hundreds of comments on contemporary higher education that appeared in the extensive literature review we conducted and that were made during our outreach efforts to the people of Alaska, students, staff and faculty.

Part 3 describes the way our Effects Based Thinking process is supposed to work when the methodology is applied to UA.

Part 4 lists Effect Statements, which are grouped by issue under the five major themes of Shaping Alaska's Future (formerly SDI):

1) Student Achievement and Attainment
2) Productive Partnerships with Alaska's Schools
3) Productive Partnerships with Public Entities and Private Industries
4) Research and Development to Sustain Alaska's Communities and Economic Growth
5) Accountability to the People of Alaska

Each Effect Statement addresses a major cogent issue or problem that clearly needs UA attention. These Effect Statements articulate the principles UA will use and the outcomes that, if achieved, will address the major issues confronting UA. [1]

Effect Statements are followed by "Shaping Ideas." These are discussion starters, examples of actions that could be taken to address issues and achieve outcomes. This list of examples is not exclusive or comprehensive. Many more examples can be found in the text of Part 2. We hope you will add to this list of ideas and rigorously evaluate all of them.

As UA embarks on the "doing phase," the continuous process of Shaping Alaska's Future, you will determine what changes occur and whether they will be successful. Thank you in advance for all you have done and will do.

[1] The lack of any prioritization is intentional since the right combination of any effects or shaping ideas require significant further discussion and vetting.

PART 1

WHY DO WE NEED TO CHANGE UA's STRATEGIC DIRECTION?

Why Do We Need To Change UA's Strategic Direction?

Setting Sails For Success

Scene Setter

The national higher education agenda is in transformation and is generating a powerful message which is being broadcast across the United States. At the University of Alaska (UA) we interpret it to say: "The time has come to raise the bar … to shape a new vanguard of workforce that is trained, educated, and ready to benefit economically by meeting the demands that a resource hungry, environmentally conscious, digitally supported world economy will place on our doorstep." Or not. Yes, we have a choice. We can demur and say, "No need. Nothing's broken. What's the urgency? We're doing just fine the way we are." We can certainly choose that road. But, in my opinion, if we do, the consequences for Alaska become entirely predictable … and all bad.

UA is Alaska's higher education engine, with three separately accredited universities comprised of 16 campuses stretching from Kotzebue to Ketchikan. Today, there are nearly 35,000 students enrolled in our universities and college campuses statewide. Over the past decade we have witnessed the number of students seeking postsecondary education continue to grow steadily. UA student enrollment has grown 8.8% just over the last five years, with students enrolled in high demand Alaskan career fields accounting for about 40% of that. Enrollment of first-time-ever freshmen over the same period has grown nearly 28%, with most of that group being Alaskan high school graduates. The UA Scholars Program, our top 10% performing students, has increased its enrollment by 12%. These are all unambiguous indicators that UA is winning the fight to recruit, retain and refine our state's most precious natural resource … well educated citizens. We have been generally pretty good at building baccalaureate-level graduates … teachers, nurses, engineers, to name just a few. But we have much more to do. The competency bar keeps going up by itself. To meet the growing standards, we are going to have to focus on successful partnerships with Alaska's industries so we can turn out specifically trained and educated employees where and when the Alaska workforce needs them. Associate degrees are rapidly becoming required, more than simply desired, because employers today want critical thinkers as well as technical experts who can manage their logistics and operate their technology.

To those ends, the university is in the midst of a major institutional directional change. We call it the Strategic Direction Initiative (SDI). Beginning about 2 years ago, UA teams hit the road for several months, out soliciting the people of Alaska to help us chart a new course. We were highly encouraged by their strong response, their passion, and their commitment to support the work that

they said we have ahead of us. Our promise to them was that we will seek out and remove frustrating, expensive, bureaucratic, and administrative barriers to student success that might have unintentionally grown up over time within our university system. We intend to employ readily available technology to help open expeditious pathways for our many categories of students to move both physically and virtually throughout the UA system to meet their attainment goals as quickly and affordably as possible without sacrificing learning quality or value. By asking ourselves why we do things the way we do, and answering honestly and objectively, we intend to create a culture of sustained continuous improvement throughout the UA system.

Upon distilling the SDI outreach data down to its essence, we acquired a much higher degree of clarity regarding our purpose and need. Now, we plan to systematically unlock the potential energy that we observed within the businesses and communities all across our state, and use it to help power our own higher education future. Our ability to parry the challenges lying in ambush along the way of progress links directly to our ability to foresee and then nimbly respond to the myriad of economic market changes trending throughout the Alaskan workplace. Our university system's ability to adapt plays an essential role in this process. For example, after a decade, Alaska is about to reach a pivotal decision on oil and gas development. What is decided on paper will undoubtedly be hailed as a landmark achievement in our state's economic history. But at the same time Alaska employs an aging imported oil and gas workforce that needs replacing. Alaska has prospects brewing for several diversified industries. Alaska sits on the cusp of realizing significant brand new types of mining and oil/gas expansions. Alaska is center stage for international arctic environmental and geophysical research. Alaska is responding to a growing number of economic development inquiries that are being received as a direct result of our highly advantageous market location in a world of expanding globalization. In short, Alaska is potentially lead time away from confronting a substantial need for filling management and technical jobs that don't even exist yet. To accommodate the need without resorting to outside labor will require much closer interface with the Alaska Department of Labor, local industry, and local communities. They will help us identify how many, where, and what those future jobs will look like so UA can get down to the business of designing, planning, engineering and resourcing all the customized workforce education and training programs we will need.

We Are Alaska's University

In Alaska, anyone eligible and ready for college essentially has an open door to enter our universities and campuses. The burden on a new student of making so many difficult decisions that typically come with enrollment can be quite intimidating. We believe our students deserve first class personal service as they each seek out the best placement in order to transition academically (and affordably) from high school into and through the UA system. To accomplish that tall order we have to form a solid, trusting relationship with Alaska's school districts … aligning curriculum, collecting student academic data from preschool to high school … making sure that teachers, principals, advisors,

parents and students alike are all confident that their expectations for continued academic success are addressed and well placed. Rural Alaska presents its own very important imperatives. We believe that the successful university education programs for rural Alaska are the ones that will prepare students for the analytical rigors of college through the use of culturally-relevant social norms and curriculum. This idea is breaking new trail at the college level. We believe that students learning critical thinking in humanities, math, and science can thrive just as well academically by applying quantitative and qualitative reasoning to the lessons of Alaskan history, culture, and the learning ways of a subsistence experience deeply rooted in their Native heritage. After all, math and science in the bush are the very same as that found in urban Washington, D.C. We believe economic and infrastructure disparities in rural Native communities stand the best chance of elimination by returning well educated, well trained sons and daughters … who never lost sight of who they are during the process of becoming academically prepared … back to their villages as leaders and educators.

Student-Centered Focus

Clearly, our state lawmakers want the same things we want: a systematic reduction of institutional barriers so that Alaskan students can easily and cost effectively transition into, through, and out of higher education. For example, students and parents alike have come to expect that the basic core courses taken at any one state campus should transfer to any other, regardless of the method of instruction used, such as the increasingly popular eLearning methods. We agree. This saves money, time, and eliminates a major source of student/parent frustration. Reducing the "hassle factor" would undoubtedly encourage increased enrollment, contribute to better retention, and enhance faster graduation. Additionally, our student-centered community focus needs to be reinforced by similarly progressive attitudes throughout UA itself regarding the system's co-equal responsibility to provide high quality, timely, student personal service, world-class academic and financial advising, and a genuine inviting and pleasant overall student campus experience inside and outside the classroom. Students want choices and flexibility. They want expanded eLearning opportunities and custom course offerings that allow for family schedules commonly required by our "non-traditional" working students. To that end we are looking at more non-traditional classroom hours, supported by universal internet access and broadband upgrades. We are dialoging across the state with Alaska's business communications leaders. Off the grid students desperately need access to high data rates that can enable the latest software applications, regardless of where they live in Alaska.

Accountability

When it comes to our role in providing for student's success, a cursory look at the rate of change occurring around the nexus of leading edge communication, teaching and learning clearly demonstrate that we can't rest on our laurels. The university has an obligation to maintain the best environment we can for student success, upgraded regularly at a rate commensurate with the high

tempo development of their commercial personal technology, and with the expected tempo of the business and scientific advances we are teaching them about in the classroom. Anything less is akin to the illusion of Michael Jackson's famous "moonwalking" … backward progress disguised as forward motion.

"Why?" Indeed.

Alaska's communities told us clearly that their future is deeply invested in the entire education continuum, K-16. Every Alaskan school district, business, and community is a potential partner, beneficiary and contributor toward UA's comprehensive effort to meet state education and workforce development challenges. SDI, our university system institutional shift in strategic direction, is a comprehensive initiative to pursue much improved and measureable student outcomes at every level … to create greater academic and economic value, and stimulate a greater state return. SDI is about UA adopting a philosophy of system-wide continuous improvement as an enduring cultural tenant. That is what a top line university system should be all about. We Are Alaska's University. We are all about UA graduates who not only succeed in their higher education aspirations, but also succeed in their life's calling. For we Alaskans will all assuredly depend on them someday.

PART 2

MULTI-SOURCE OBSERVATIONS AND OPINIONS ON HIGHER EDUCATION GATHERED THROUGH THE STRATEGIC DIRECTION INITIATIVE

1) National Higher Education Viewpoints

a) Secretary of Education "Need transformational change…"
   - "Too little accountability for improving attainment and achievement."

b) College
   - Too expensive.
   - Completion rates too low.
   - More associate degrees needed.
   - Time to completion too long.

c) Grants and loans will shift toward performance-based and outcomes-based universities.

d) President Obama: Race to the Top will have $1 billion for openness, completion, affordability and good employment linkages.

e) Use technology, personalize learning, expand access, bolster productivity.

f) Consider earnings-based student loan repayment.

g) Become true partners with K-12 schools and work to ensure high school graduation standards are aligned with college readiness for admission at a four-year or two-year level program.

h) Partner with business leaders and community colleges to ensure the right workforce skills for the future labor market are being taught.

i) Seamless credit transfer essential if schools want to partner.

j) Can't increase costs to students as the principal bill paying source for employee salaries and contracts.

k) Exploit promising innovations.

l) President Obama says:
   i) Create affordability OR risk losing federal aid.
   ii) Provide good value, including to those with academic deficiencies who need help.
   iii) Make it hassle-free to pursue a college degree (service, efficiency).
   iv) Expect to see the government hard sell its new College Scorecard.
   v) Align standards for entry/exit throughout … vertical (high school) and horizontal (universities).
   vi) Be First in World competition. College Scorecard could help.
   vii) Financial aid shopping list is needed.

m) Understand the national higher education agenda. Take it seriously. Get caught up and stay caught up with developments.

n) Two-thirds of future jobs will require postsecondary education.

2) State Higher Education Environment

a) Expect flat operating funding despite excellent legislative support.
b) Overwhelming deferred maintenance problem … last year of Governor's dollars.
c) Difficult to get research/equipment funding, or funding for research support structure.
d) Working on common student database … State of Alaska's P-20W Statewide Longitudinal Data System (SLDS).
e) Great support from Department of Education & Early Development. Opportunity.
f) UA capital budget consumed by Engineering, UAF Heat and Power Plant; creative approaches to fund needed capital investment will be necessary.
g) Lowest college-going rate in the nation and lowest postsecondary participation rate by low income families.
h) A majority of UA students are part-time and nontraditional.
i) Alaska exports way too high a portion of college-going students to other states.

3) High School Testing

a) State should pay for early high school testing: Accuplacer, PSAT, ACT/SAT.
b) Use testing as way points, not just end points.
c) Align with college and career prep.

4) Admissions

a) Open admissions … with reservations. Careful advising. Mandatory placement in appropriate track.
b) Colorado: Guaranteed four-year admission with 30 community college credits, 2.7 GPA minimum.
c) One-third of all students will transfer at least once.

d) All UA schools in the state system K-20 need to be on board with these admission/enrollment initiatives … no county options.
e) Model innovative growth ideas. Not talking growth in number of buildings, or natural demographic growth. Start "UA growth" in high school. Create, capture more Alaska high school graduates, then retain them … it's growth by another name.
f) Create a common, system-wide new student placement standard.
g) Student in-processing and service support needs an overhaul using a university "best practices" template. Service should be effective as well as student centered. Don't just explain problems to students … fix problems for students. Empower staff employees to do that whenever they can. Make it a condition of employment … pass/fail graded.
h) Revise student admissions policy … first timers, transfers, returning students, etc.
i) Enrollment standards for baccalaureate.
j) Make transferred credits count … certificate, associate, baccalaureate.

5) Remediation

a) Go after the root causes. MOOC (Massive Open Online Courses) UA's general education requirements (GERs) to grades 6-12. Flipped classes. Encourage individual progress and team learning.
b) Don't waste money/time in building remedial classes that provide no credit, have high failure rates, and eat up student dollars and morale.
c) Test in high school early, often … "waypoints." Replace the High School Graduation Qualifying Exam with a test that truly measures college and career readiness.
d) Create widely available tutoring. Extended class hours if necessary.
e) Align "college ready" with "graduation qualified" to mean the same thing state-wide.
f) Opportunity: use summer, online. Start "gateway" courses right away where/when possible.
g) Mandate use of the community campus system for appropriate placement.
h) Fully use 12th grade, based on tests, placement. No opt-outs.
i) Compete to Complete … Complete College America (CCA; 33 states). It's not "bad." It's just federal.
j) Administer college ready assessments in high school.
k) Give credit for "the right math" for the path, such as the Carnegie Foundation Quantway or Statway … it may not be Algebra → Calculus is so sacred.
l) Declare a major study area right away, (then) do the gateway courses first.
m) Remediation is not working.

n) Remediation: Don't just look to mitigate it … re-connect the high school-to-college education continuum in a way that can actually obviate the need for most categories of remediation altogether.
o) Eliminate the need for remediation by eliminating the cause of remediation.
p) Establish specific academic applications for MOOCs so state high schools can use them to reduce the need for developmental and remedial placement.

6) Academics

a) Student Learning is the Gold Standard: Receiving basic and balanced critical-thinking and technical skills through application of modern learning techniques, ready to enter the job market or a higher education institution academically prepared and motivated.
b) Create smooth, clear, predictable pathways: high school → two-year → four-year, and communicate them clearly in major/degree maps.
c) Curriculum alignment … starts with GERs and work back through high school courses.
d) Understand that workforce requirements for graduates … their skill needs must influence UA production planning.
e) Accommodate choices by students … or they will make their own choice to go elsewhere.
f) eLearning taking over – it's here to stay. It touches everything -- fundamentally changes the teaching/learning game, including who gets the revenue.
g) Classic lecture to a cohort is facing growing competition everywhere.
h) Putting up with high course attrition is bad education. Take it on.
i) Faculty/staff evaluations and tenure criteria should reflect whole person … service committed, a willingness to step up and lead, manage, or support changes in teaching and research as required.
j) The balance of Humanities, Arts, and Sciences has to be maintained, but filtered through the financial viability of workforce demand as opposed to just student demand. Interdisciplinary study is the way ahead … need to get out front.
k) THE GIFT WE GIVE: Critical thinking skills, regardless of academic degree. Ability to analyze and to express results … ideas, written and oral.
l) Enhance UA student speaking and writing skills in all our courses.
m) We want to create civil, ethical, community minded leader-citizens. Has to be part of the UA overall curriculum plan in some formal way.
n) Classroom space utilization: turf protection vs. efficiency and cost.

7) Streamlining

a) Two years of credit opportunity possible in high school … make it available.
b) Grow articulation agreements from two-year → four-year throughout UA schools.
c) Confer appropriate associate degree for previously enrolled community college students who have accumulated 70 hours.
d) It must be college level work … cannot compromise academic excellence.
e) Credit for prior learning, prior experience.
f) General Education Core transfer (23 states) made simple … let's see if we can be No. 24.
g) Working students must be accommodated (recent high school graduates attending full-time comprise only a small portion of the student population).
h) We must be willing to assist a student who wants to "get in, get through, get out, and get working." List all the typical student delay scenarios and look at how many we routinely put up with for less than compelling reasons. Standardize 120 hours/60 hours as UA degree attainment goals, with exceptions being rare.
i) Fully eliminate persistent, unnecessary chronic credit transfer roadblocks across the UA system, whatever they may consist of.
j) Block scheduling (sequential courses) – predictability. Math courses taken early, and in sequence until completion.
k) Hold campuses accountable for making improvements in time to completion.
l) Take regular attendance. Withdraw students not attending class or doing the work, especially in the first 60 hours.
m) Create a world-class culture of student service that anchors our overall reputation goal of becoming well known as an excellent educational institution.
n) Competency-based GER progression?
o) Look at the case for 6-12 week semesters for certain classes of students.
p) Hold campuses accountable for space utilization; hours per week and occupancy capacity.

8) Attainment

a) Metrics need to measure success of under-prepared, under-privileged, under-resourced, non-standard students.
b) Better recruitment and retention goes straight to the bottom line.

c) Transfer student and remedial student metrics need to be interpreted carefully for effectiveness.
d) Work to get college credit in high school … dual enrollment. Shorten completion time with intensity … i.e. "Stay on Track." Block scheduling.
e) Degree = 120 hours (15 x 8) for baccalaureate … or 60 hours (15 x 4) for associate.
f) Encourage competency exam credit. College-Level Examination Program (CLEP) and others.
g) Declare a major early, take no more courses than required. UA builds the pathways from community campuses onward.
h) Common course numbering, fast and clean transfer process.
i) Can't be full value if it doesn't also apply to improving adult students' success.
j) Reverse transfer (15 states): student dropped, but could have attained a two-year AA degree with 20 more credits → then goes on toward 4-year degree later. As they add 20 credits → award associate degree along the way (credit goes to community campus).
k) In student eyes, hassle-free credit transfer is an entitlement, not a bonus.
l) "Graduate in 4" is a partnership (15 hours: student … + 120 hours: faculty).
    - Earning more hours than necessary does not equate to better education.
    - Nor does adding more hours (minors) for a routine degree.
m) Students drop out, in debt, with no degree to show for it … a university's worst failure.
n) Seek out, find, and remove administrative student roadblocks through formal analytical program assessment (process measuring). Techniques, possible consultant help.
o) Seek out and employ the opportunities resident within our system that will allow students to complete, attain faster.
p) Reach back as far as practical in order to help guarantee that high school students are ready at graduation to:
    - Immediately enter the workforce hiring process; or
    - Enter higher education without remediation.

    (Who scores this if it were to become a metric … UA or the K-12 world?)
q) Build a world-class student mandatory comprehensive advising system all across UA. Then link it with Statewide Longitudinal Data System (SLDS) to the high schools.
r) Make permission be required to change majors … engage mandatory high-impact advising that can restructure a new degree path to on-time graduation.

9) Student Schedules

a) Revise "crunch" courses, washout courses with an attitude toward creating success.

b) Fill up the days, nights, weekends if necessary. The majority of our students are part-time.
c) Use technology to improve class scheduling flow options.
d) Students want options or they will select the one option we don't want them to … to go elsewhere.
e) First –time freshmen should require mandatory orientation regarding UAOnline, comprehensive advising, finance, food service, housing service, Blackboard, healthcare, security, safety, university rules, tutors scholarship availability, conduct.
f) Classroom course and lab schedules need to step up and meet student throughput demands, when necessary using a full week for scheduling opportunity, including optimum use of any available classroom.
g) Space utilization and consolidation needs to be analyzed, evaluated, and if necessary regulations established that recognize student progression as a top priority in the determination process.
h) Look at a University College concept.
i) Waiting lists for courses at any level need to be worked down very aggressively. Goal = 0.
j) Examine block scheduling … i.e. 5 days/week, 8 a.m. – 12 p.m.

10) Students Have a Role

a) Declare a general area major early. Declare goals. All baccalaureate students have a declared major and degree plan at no less than 60 hours.
b) No late registrations.
c) Avoid debt; when in debt avoid default. Use advisors.
d) Take 15+ credits.
e) Early dual enrollment/dual credit is good if you are ready.
f) High school senior year can make all the difference in college readiness – don't waste it.
g) No unclassified students allowed. Must have a major area, or a major declared, from day one.
h) Go to class, do the work.

11) Rewards/Incentives

a) Reward performance and potential, not promises.

b) Address scholarships in a way that demands more of entering students and then builds more reward as they progress.
   - Can we do this with mini-grants?
c) Re-align scholarships … place more emphasis on rewarding student college-level performance, particularly during the "three critical years." Consider covering first year full costs with performance based funding for later years.
d) Can we buy down tuition in any way? Offset with scholarship dollars? Legislative action?

12) Articulation

a) UA Associate degree guarantees acceptance into UA four-year program.
b) 2 + 2 "guarantee" agreements could guarantee UA community college graduates admitted to four-year programs as juniors (23 states).
c) Transfers are good … need to make them simple. Go from two-year → four-year. Package deals.
d) Create a first-class community campus articulation system-wide plan.
e) Align basic math curriculum, all the way back to junior high school if necessary, to arrive at the UA freshman math standard.
f) Transfer Student Bill of Rights (Florida).
g) UA has upper division course capacity. Let's fill it … transfer student recruiting, "Ready Adults."

13) Community Campus

a) Redesign community campus system integration. Look at them differently as to what they can add:
   Access → access + success.
   Fragmented → clear pathways to completion.
   Low throughput rate → high rate → articulation.
   Tolerance → rigor → achievement.
   Local prerogative → collective responsibility.
   Isolation → collaboration.
   Boutique → general education path to a degree.

Teaching focus → learning focus.
IT as support → IT as support and analytics.

b) Funding from enrollment → enrollment leads to student success.
c) "Ready adults" – have earned significant college credits without earning a degree. Find them.
d) Teaching and scheduling flexibility is paramount for all the different student lifestyles … CCs do it best.
e) Recognize fully our essential commitment to building Alaska's workforce and citizenry.
f) Do not compete with Department of Labor for workforce development teaching. Capitalize on what we do best for the workforce.
g) Create a common role/mission for community campuses that enhances student two-year degree attainment as well as a corresponding articulation to a four-year baccalaureate degree.

14) Teachers

a) Quality control is essential to get program entry of high quality candidates.
b) Lots of clinical preparation … lots of high quality mentoring.
c) Knowing and teaching – have to have both.
d) Evaluate UA teacher prep thoroughly and support with research.
e) Big focus on STEM teachers/STEM students, but balance too. Interdisciplinary rounding.
f) New learning advances depend on new teaching methods.
g) New teaching methods depend largely on new technology, new subject matter presentations, broadband … coupled with new, innovative ways to motivate students. ANSEP does it well. Why? Use it elsewhere.
h) Significantly improve math background and fundamentals.
i) UA needs a set of Core Values that can be used to capture our students' loyalty to their university, and their place in it. Our teacher graduates then take that loyalty example with them to K-12 across Alaska and promote the concept.
j) Produce teachers academically prepared to take advantage of technology, and can use it to elevate high school students academically to the minimum level of learning required to meet the rigor of APS selection. Three levels.
k) Teacher mentoring … essential! What's our overall program grade? Why? What can we do better? Must be scaled up to a full state program.
l) Young K-12 students who want to be teachers need to teach … get their feet wet. Motivation early on. Motivation is so fundamentally important at that age.

15) Finance

a) Scholarship review – reward vs. entitlement.
b) Reverse cost of upper/lower classes. Halve community campus AA degree tuition rates.
c) Package rates for associate degrees.
d) Alaska has the highest proportion of adults with some college but no degree. Reach out to "forever students" who did not graduate.
e) Preparation, retention, persistence, graduation = good business model.
f) UA Student Financial Service needs a basic process management review. Rules are outdated, mistake prone, not student friendly. Personnel become needlessly bureaucratic because of these rules. Empower them! The percentage of "situations" coming out of student finance is way too high. Work problems, don't just listen to them.
g) We desperately need a UA system tuition scheme that incentivizes intra-university collaboration, cooperation. Let's enhance the natural attractiveness of our community campuses for students needing that level by making them very affordable. Let's cut tuition for certificate, AA degrees.
h) Expand unrestricted funding sources.
i) UA and the three universities must diversify sources of revenue.
j) Expect little to no capital maintenance (R&R) or new construction planning dollars over the next three years.
k) Deferred maintenance okay, renovation to achieve mission maybe, but not new capital construction unless an equal amount of space is demolished within the system until student or research growth demands otherwise.
l) Tuition is a political issue, as well as a financial one; re-examine tuition models including consolidated tuition
m) Legislative ratio guidance flawed. Substitute?
n) Work to get governor's deferred maintenance appropriation back for five more years.
o) Establish a University Building Fund.

16) IT

a) For our students what do we need to track inbounds, outbounds, transfers, attrition, "ready adults," and job availability? Let's build it.
b) Disaggregate personnel data to be able to track, and advise individual students.
c) Simplify high school early learning enrollments.

d) Financial transaction services must be made simple, online.
e) Single point contacts wherever possible – advisors.
f) Transfer website (29 states).
g) Technology is an entitlement, not a student optional add-on.
h) Bring expanded broadband to all of UA.
i) IT now underpins everything we do … it is revolutionizing higher ed.
j) Cannot fully reach potential without IT excellence.

17) Metrics

a) Measure disaggregated demographic data i.e. Alaska Native, non-traditional students, etc.
b) Course, degree completion.
c) Time to start, time to completion from high school graduation.
d) Cost/student … cost/degree. Production costs to UA broken down.
e) Outputs.
f) Measure high level – achievement of mission, outcomes, goals.
g) Measure performance.
h) Measure what you can control and set targets for.
i) High school students need to graduate satisfied about their readiness and their opportunity to get work and/or go to school in Alaska.
j) Our metrics should track effects: accomplishment trends, ratios, behaviors.
k) Exit polls.
l) Track accreditation write-ups.
m) Include space utilization metrics.

18) Collaboration

a) Forcing unwanted "cooperation" among our universities and system office burns up too much institutional energy … but our reputation goal depends on it. Too personality dependent.
b) Showcase "special" programs to the public: Consolidated Alaska Mining Initiative, Fisheries, Seafood and Maritime Initiative, Unmanned Aerial Systems (UAS), centers, research, among others. Put them up front on our websites.
c) Tell our story to Alaska and to the nation.

d) Build community, state trust in us as an institution.
e) Keep tuition objective, realistic, affordable.
f) Collaboration among the three universities has to be accorded a top priority or "Effects" will never reach their potential. Has to withstand the impacts of personalities changing at the top echelons.
g) One for all, all for one is presently raising the institutional reputation for overall excellence. The only way is up.
h) Unless it functions exceedingly well at every campus level, the UA system will never reach its rich potential as a higher education institution in the eyes of our supporters and our peer universities … and neither will UA's reputation for excellence.

19) Process Improvement

a) Books – reduce cost.
b) Financial services … scholarship money, veteran benefit checks.
c) Class scheduling … block registration.
d) Classroom scheduling.
e) Training for service providers.
f) Freshmen orientation.
g) Staff development.
h) Faculty development.
i) Leadership development.

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PART 3

SHAPING ALASKA'S FUTURE: HOW IS THIS SUPPOSED TO WORK?

HOW IS THIS SUPPOSED TO WORK?

EFFECTS-BASED THINKING

Shaping Alaska's Future… It Is Still All About Student Success.

After two years of hard, successful work across UA on SDI (Phases 1 and 2), we are daring to advance to thoughts of Phase 3 … e.g. completion, metrics, light at the end of the tunnel, "is it soup yet?" or maybe just "enough, already." However, Phase 3 is anything but a downhill coast to the finish line. The last SDI phase will demand of us the most introspective and objective question and answer process experienced to date. It will be characterized by seeing the data gathering process transition over to more of a hybrid system analytics methodology in order to map out a course for the "D" in SDI. Phase 3's foundation will rest more on logic, along with a heuristic component that issues from a rapidly evolving national higher education experiential base.

Science today is telling us with more and more fidelity how we learn … the physics, chemistry, and biology of the brain's function during the process. Turns out real physical learning isn't that different from person to person when you get right down to it. Long held theories about men vs. women, visual vs. aural, cram vs. paced, are being debunked by the emerging science. Cracking the learning code has revolutionary implications for education at every level.

Teaching, on the other hand, is a whole different story. Effective education … the learning part that develops into critical thinking … is inextricably dependent on the effectiveness of the teaching part. Learning needs teaching. The vice is not necessarily versa. There is much more we need to understand about teaching … like, how much is enough? And about the right technique mix … how best can we blend science, art, creativity, and personality? Traditional classroom methods serve well, as do new and innovative teaching methods when both can capture and hold students' close attention to what's being presented … which, in turn, is showing up to be essential to the science side of learning. The need for good alignment is becoming obvious. We are also observing that when excellent teaching results in excellent learning, student motivation for seeking more of the same experience at the next level increases.

What's Broken?

Individual student educational value is created by the nexus of a productive classroom and a motivated learner. A highly functioning education process consists of an expanded series of these student success snapshots taken in ascending order over time from pre-K to grade 16+, where the requisite level of student accomplishment reached in one frame is essentially the matriculation starting point of the next, and so on, and so on. The continuum appears less sensitive to total time spent, such as part-time students might require to advance, as long as they are adequately prepared for the next level. It's all about maintaining an unbroken learning continuum. Fall short anywhere and the next frame in line also risks being sub-optimized. Learning science tells us that is

particularly true at key child or adolescent brain development points. To a certain degree small learning shortfalls in the outcomes of any one teaching period … what we can think of as the 12 school grades … can possibly be overcome later, perhaps with better teaching, better motivation, and for those able, accelerated learning to catch up. But academic repositioning is not likely to occur if the learning shortcomings persist repeatedly. Then the physical laws of learning science predominate and eventually can't be overcome due to the increasingly complex subject matter to be mastered in order to advance to the next level. In the end, an accumulating debt must be paid, which all too often includes options such as remediation, hold back, or drop out. At that point, a students' chances for normal, successful continuing education and even basic workforce placement can become seriously handicapped. Think of the education continuum as a vector to student success and attainment. While its velocity may vary for some, it must not be allowed to have its direction altered or its quality compromised for students struggling along the one true course to the culminating point – fully ready to start postsecondary education and/or workforce training. Unfortunately, for a large number of students in the U.S. and in Alaska, they never reach readiness. The questions for UA are: 1) What are we going to do about it? 2) If we don't do something, who will? Enter Shaping Alaska's Future.

Methodology.

Phase 3 of SDI can be called the "doing" phase. Our months of outreach meetings, hundreds of comments, reviews by governance, consultants, master plan reviews, attention paid to similar efforts by sister university systems, BOR concerns, and legislative recommendations have been distilled down to five major "themes." These are subject matter categories each within which hundreds of raw inputs have been collected and stored. SDI needs to not only address the impacts of individual inputs, their frequency, and even their legality, it must determine if, how, and when these inputs could be converted to actions. But what actions? I would suggest that we quickly overcome the natural tendency to try to answer that question first. The first question should be, "What is the specific problem or issue we want to address? The second question then becomes, "What is the outcome we want to achieve?" A useful tool that I believe fits our need in this situation is to reason the way ahead using Effects-based Thinking. The remainder of this paper discusses Effects-based Thinking.

How Do We Affect The Effect?

In a nutshell, SDI is a way for UA to answer the question, "Why do we do what we do, the way we do it?" The answer could be: (1) Because things are working fine; or (2) We should change. There may be another way altogether; or (3) There may be better MAU local outcomes that would automatically derive from improving overall UA institutional level outcomes. It makes sense to seek out a methodology that guides and controls the process to the right answer. I suggest that is what Effects-based Thinking (EBT) can do.

First, EBT seeks to specifically articulate any root cause and strategic level institutional problems or issues. Then it samples the associated operating environment for any potential road blocks to achieving a high level desired outcome. The desired outcome is what becomes the Effect we are looking for. Juxtaposed with a carefully crafted Problem (or Issue) Statement, the connection between the Problem Statement and the Effect Statement then becomes a discreet path to undertake … "to do" … Across a system, like UA, collaboration is the single most important fundamental characteristic of the "to do" efforts.

There may be more than one "to do" needed to make the connection whole. Several seemingly viable options that connect problems to desired outcomes may not work for reasons of time, money, manpower, legal, etc. Or it could lead to requiring increasing activity outside the institutional core competencies … a common reason for "mission creep." Some may only be viable if other related "to dos" elsewhere in the system (enablers) are accomplished first. To understand the workings and the inherent strength of Effects-based Thinking as we would employ it in SDI, a deeper dive at this point into the highlighted terms and their systematic relationships should prove helpful.

Systems Thinking – The First Step.

UA, with independent MAUs and their attached community campuses, is a system of systems. As such it makes good sense to apply a systems approach to SDI and to navigating the complex relationships that form our system. A systems level understanding of the consequences of proposed effects will strengthen the viability of our choices.

In that vein, as a start, what follows is a brief sampler compiled from numerous sources describing the generic characteristics of systems and systems thinking.

Characteristics of Systems and Systems Thinking

- Organizational systems consist of people, structures, and processes that work together to make an organization 'healthy' or 'unhealthy.'
- Independent elements can never comprise a system. (Think 'collaboration.')
- Systems thinking is an approach to problem-solving that views 'problems' as parts of an integrated whole rather than in isolation. A systems approach helps avoid incomplete solutions and unintended consequences.
- Systems thinking views systems in a holistic manner and requires examination of the linkages and interactions among the elements that comprise the system.

- Systems thinking attempts to illustrate how small, catalytic events that are separated by distance and time can be the cause of significant changes in complex systems.

- Systems thinking promotes organizational communication at all levels in order to avoid the silo effect."

Core Competencies.

Another guideline that warrants close attention is the often quoted (but less often followed) instruction to stick with your core competencies. Core competencies are the few enduring strengths of an institution. Focusing on core competencies avoids mission creep and wasted resources.

Core competencies do not work well in isolation, and should not compete against each other for resources. We must purposefully unite core competencies in a way that creates synergy and contributes significantly to strategic intent.

Core Values and Core Competencies.

Core values are the soul of the organization. Here we have a problem. UA core values are hard to find, not deeply meaningful, and as a result are practically unknown across the UA system. Every employee, every student, every alumni and every UA supporter should know our core values by heart. We should live them as an outward manifestation of UA being a values-based organization. In our SDI (Phase 3) work, the lack of awareness of UA core values and core competencies may be two of the first issues we want to examine. Without a common understanding of core values and core competencies, system-wide collaboration will be a chimera.

The better we get at articulating and internalizing our core competencies, the more effective the university will become at providing value to our students and competing well in a tough higher education marketplace.

In SDI (Phases 1 and 2), we identified five major themes that provide the conceptual framework and focus for strategic change:

1) Student Achievement

2) Productive Partnerships With Alaska's Schools

3) Productive Partnerships With Alaska's Public and Private Industries

4) Research and Development To Sustain Alaska's Communities And Economic Growth

5) Accountability To The People Of Alaska

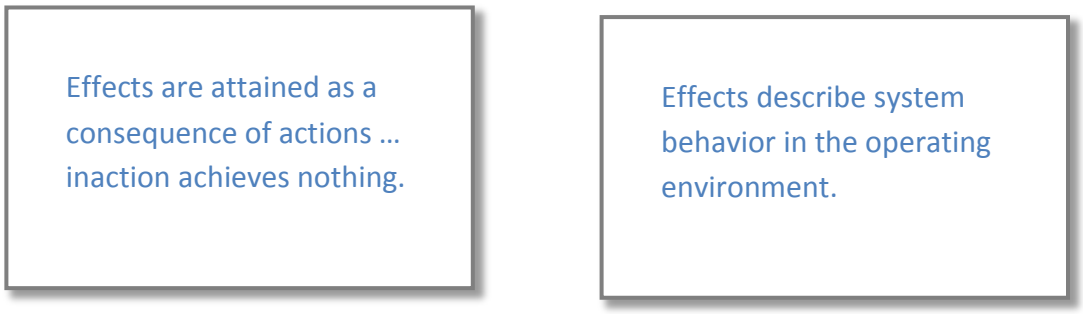
After articulating and evaluating our core competencies and our core values in the context of the five major themes, full collaboration will be required to contemplate, assemble, and unify many diverse efforts. Accreditation requirements, master plans, Board of Regents' policy and legislative guidance also must be factored in.

In effects parlance, if we get SDI right, the sum of the effects we will end up creating should enable us to create a profound effect across the entire UA system - a significant, measureable eye-opening improvement in Alaska's higher education effectiveness as seen from outside the system by Alaskans and by the academy.

Prior to commencing the last phase of SDI the primacy of data in our methodology is worth mentioning. The data we gathered from so many disparate sources gave us a general knowledge about issues and problems existing within our UA system. Knowledge by itself is of some value in our analyses, but awareness is one step up in the hierarchy and is even more valuable. "One is cognizant of something when one has certain (or special) knowledge of it through observation or information." We gain awareness by further manipulating the data - collect it, crunch it, create information, fuse information sources, try to reassemble the knowledge into "high definition awareness." The value goes up even more the closer the facts that we rely on are to ground truth and real time. Gaining awareness compels action. When near real time awareness is also supported by ground truth it enriches everyone's thinking and significantly enhances predictability. Generating quality awareness then, is more than just your average worthy goal. But it's also true that if one cannot achieve the desired quality awareness, the alternative, accessing an abundant quantity of (data) still has a quality all of its own. The point is, we need to be especially considerate of how to unlock the maximum potential from our database.

Effects – Break It Down.

- The difference between the means and the end.
- Bringing about a result, to influence.
- Are compilations, and thus may have many authors.
- A full range of outcomes, events, consequences.
- Have an element of discreetness.
- Are complex, not just complicated; they cascade.
- Have no clear lines of demarcation.
- Radiate out in time and space and influence one another.
- Have a psychological component.

- 

  Are more subjective than objective.
- Create collateral effects, second/third order consequences.
- A shift from input to output.
- Tough to pin down the closer you get.
- Relationship between a set of factors and a phenomenon.
- Anything that affects an effect is a factor.
- Effects are usually described using an active voice.

By this time hopefully we have sketched out a general awareness of the meaning of "effects." Employing that awareness, one might notice that stating an effect can, but does not necessarily, describe the means to achieve it, or does it necessarily infer causality - the relationship between an event and a second event.
Our machine for Shaping Alaska's Future, an effects-based operating process, is now ready for final assembly.

Strategic intent is comprised of system effects. Systems have tangible ties called nodes (people, material, facilities, data) and links (physical, functional, behavioral) and they form relationships. When they become broken or damaged they may precipitate any number of malfunctions that can jeopardize the whole system. On the other hand links and nodes can be benefitted substantially by effects that repair them and substantially benefit the whole system at the same time. Pockets of chaos - uncontrolled events - invisible inefficiencies - silos that result from dysfunctional or disconnected links and nodes (relationships) can grow insidiously into a state of affairs unknown to all, where the desired outcomes of mission effectiveness and continuous improvement are not in the realm of possibility, despite well intended attempts system-wide to rally morale and excellence among employees.

Since an effects-based approach is comprised of part logic, part art form, perhaps even linked to the vision of leaders, the human element is essential to knit the pieces together. Effects need an owner. Leadership fits in here. A working group can do it. A president can do it. A provost can do it. A

chancellor or vice chancellor can do it. Much better however, if they all work it together. They must be able to identify priority and timing; identify "enabler" effects. They can sum effects. They can model and test effects. The leadership mantra needs to be "marginal effects draws marginal interest," which is key to maintaining objectivity and prioritization. But above all they need to provide solid leadership throughout the entire effort.

Metrics.

Here is the simple part. An effects-based metric is an assessment mostly concerned with ratios and trends: recording small changes happening all throughout the individual UA campus system (nodes and links) or actions (behavior, capability), looking for positive indications over time. We are not pursuing absolutes or pass/fail criteria. We are not on a fast track schedule. Three to five years may be required to confirm that we are realizing the effects we seek. We want change to be broad, deep, and naturally paced. All along the way the UA system will expect us to be open and frequently communicating progress. We want changes in the character and style of the UA system to build pride and loyalty at every step without interfering in any way with the quality and excellence of the one-on-one relationships we currently enjoy between teacher and learner. Once we see positive, steady improvements in student success, finance, retention, and employee satisfaction trending throughout our metrics, once we see these improvements compounding over time indicating the SDI introspective process has become naturally self-sustaining, then SDI as a formal program can go away. That occurs because we will have finally adjusted our strategic direction. We will have belayed the wheel to maintain a new heading, and at the same time found a useful way that works for our new UA guidance and navigation system to regularly confirm our correct course into the future of higher education in Alaska.

PART 4

THE EFFECT STATEMENTS

Themes, Issues, Effects and "Shaping Ideas"

THEME NO. 1:
STUDENT ACHIEVEMENT AND ATTAINMENT

- **ISSUE A.** GET IN – GET ENGAGED – GET EDUCATED – GRADUATE - GO TO WORK.

Many university and campus academic policies and student procedures are not optimized and harmonized system-wide to facilitate student progress and attainment.

Why? Costs, affordability, the value of higher education, and technology have never been more dominant issues.

EFFECT

Optimize UA baccalaureate full-time programs to enable graduation in three to five years; associate programs in one and one-half to three years. Afford special consideration to non-traditional and working students. Academic standards will not be compromised.

"SHAPING . . ." IDEAS

a) Continue to focus students on completion through initiatives like "Stay on Track."
b) Seamless credit transfer throughout the UA system.
c) Robust dual credit opportunities for GERs, CLEP.
d) Common, system-wide course numbering.
e) Seven-day/week class options – robust eLearning applications.
f) Articulation agreements.
g) No late registrations.
h) Early declaration of major area as freshman, degree choice no later than 60 hours.
i) Mandatory placement.
j) Standardized degree hours (120 baccalaureate, 60 associate) are the norm.
k) "Normal" full-time degree load: 15 hours x 8 semesters; 15 hours x 4 semesters.
l) Encourage full-time attendance.
m) Math enrollment at entry and continuous until complete.
n) Eliminate required minors.
o) Disallow valueless elective credit hours, especially those without degree focus.
p) Reverse credit transfer.
q) 2+2 guarantees.

r) Reward accomplishment with scholarship, forgiveness.
s) Incorporate acceptable prior work experience (e.g. military) for credit.
t) Comprehensive mandatory advising for all associate, first/second year baccalaureate students.
u) Control tuition … reduce it for community campuses, dual credit, 300-400 level.
v) Encourage summer programs, between semester intensives.
w) Adopt an attitude of "flexibility" toward lifestyle demands when advising/building student schedules.
x) Maintain appropriate focus on workforce needs: STEM, teachers, certificate programs, and associate degrees.

THEME NO. 1:
STUDENT ACHIEVEMENT AND ATTAINMENT

- **ISSUE B.** SEE UA THROUGH STUDENT EYES.

UA student feedback is replete with cases of unnecessary bureaucratic rules, inefficiencies, poor service policies, "hassle factors," all of which detract from student success.

Why? We are seen as three parochial, competing universities tied together with a largely bureaucratic "oversight" type staff. This model is dysfunctional at many levels, but particularly as seen through student eyes since our shortcomings are often unexplainable.

EFFECT

Remove the student "hassle factor," replace it with student choices and a suite of world-class student services and instruction that stimulate motivation, loyalty to the university, satisfaction with UA, and that build a well-rounded academic and social student experience.

"SHAPING . . ." IDEAS

a) Assess the initial student experience by focusing on the "three critical years" - high school senior year, freshman year, sophomore year. Determine what UA policies or procedures made them problematic or memorable.
b) Recognize that e-world opportunities have fundamentally changed the calculus for student life and learning satisfaction.
c) One stop shopping, one vocabulary of terms.
d) One sign-on, one email.
e) One advisor.
f) Common course numbering.
g) Fix financial services.
h) Trouble-free, timely credit transfer response.
i) More incentives for cost saving consideration.
j) Need degree maps so the path is clear.
k) Expand high school opportunities for college credit.
l) Block register especially in math and English.
m) Find an alternative to present day remediation … experiment, adopt, and scale up.
n) Give students better predictability – including how we set tuition.
o) Help students find work as interns.

THEME NO. 1:
STUDENT ACHIEVEMENT AND ATTAINMENT

- **ISSUE C.** DEVELOP WIDELY RECOGNIZED VALUES AND ETHICS.

For student attainment to reach its full potential, UA must adopt, articulate and value high standards. Students must assume responsibility for focus and meeting academic rigor.

Why? Teaching and learning are participatory processes. Even if UA institutional obstacles are removed, students still have to engage with academic rigor, with personal focus and dedication, a "student work ethic," in order to be fully successful. Clear values inspire motivation.

EFFECT

Create clear expectations of student responsibility for personal performance upon enrollment into any UA program, at any level. Introduce and demonstrate values, civic responsibility, and community responsibility in each academic program.

"SHAPING . . ." IDEAS

a) Declare a major early.
b) No more late registrations.
c) Automatic registration into math and English.
d) Degree maps so the path is clear.
e) Take at least 15 credits/semester if full-time.
f) Enroll in college prep or college courses in high school.
g) Take a full course load your senior year in high school, including math.
h) Consider use of debt to pay for college very carefully and use only as a last resort.
i) Follow your advisor's advice.
j) Do not work more than 20 hours/week – max – if you are a full-time student.
k) Encourage use of tutors weekly, not just before the exam or paper due date.
l) Consider replacing the standard "Alaska History" with a mandatory "What is Creating Alaska History?" course.
m) Attend class. Complete work. Work extra.

THEME NO. 1:
STUDENT ACHIEVEMENT AND ATTAINMENT

- **ISSUE D.** ALASKA EXPECTS UA TO TAKE THE NEXT QUALITY STEP UP.

UA needs to gain national recognition for its relevancy, research, and quality education.

Why? Postsecondary education is undergoing the most significant change in three centuries. Institutional excellence cannot inspire potential faculty and students without a corresponding reputation for excellence. Reputation affects recruiting, enrollment, grants, employment, and ultimately, financial commitment in the form of appropriated and donated funds.

EFFECT

Ensure UA's reputation matches the "shaping" we intend for institutional excellence, research and educational quality.

"SHAPING . . ." IDEAS

a) Welcome the adoption and use of recent, high-impact educational practices.
b) Establish minimum baccalaureate admission standards for UA.
c) Set the expectation that students are here to complete their program of study – not just take classes and reinforce this expectation often.
d) Provide a clear and supportive pathway for underprepared baccalaureate-intended students to qualify for admission into baccalaureate programs.
e) Automatic registration for first-time freshmen into math and English.
f) Create clear pathways for associate to baccalaureate programs.
g) Focus faculty development on high-impact teaching and learning practices.
h) Students should learn interdisciplinary, citizenship skills.
i) Create a degree/major completion map and time line for every program.
j) Every student gets mandatory advising for at least 60 hours – advisors to be specially trained.
k) Require graduate students to publish in peer-reviewed journals.
l) Seek out collaborative opportunities with other research organizations and universities.
m) Structure an information campaign designed to highlight progress being made on the desired effect at every level along the way.

THEME NO. 2:
PRODUCTIVE PARTNERSHIPS WITH ALASKA'S SCHOOLS

- **ISSUE A.** UA AND K-12 MUST COLLABORATE FOR COLLEGE READINESS TO IMPROVE.

Readiness for higher education or/and entering the workforce has to be the goal of the K-12 – UA education continuum. Public high school graduation criteria and post-secondary readiness criteria must be aligned.

Why? 52 percent of entering first-time freshmen cannot place at college-level and require one or more university developmental classes at student and university expense. Compelling national and state data indicates that remediation addresses symptoms, not the root cause of the problem. We have to reach back to high school to ensure that graduates are ready to learn and ready to work.

EFFECT

Mitigate the need for remediation by eliminating the cause of remediation. Ensure that Alaska high school students at graduation are academically fully prepared and ready to be accepted into the next phase of their life as they choose the workforce or higher education.

"SHAPING . . ." IDEAS

a) Teacher capability improvements → learning → knowing → teaching.
b) Every high school student enrolled in the Alaska Performance Scholarship curriculum unless their parent or guardian opts them out.
c) Link high school → mandatory college advising with common database.
d) Dual enrollments + eLearning + pace + CLEP.
e) Make class attendance mandatory for 60 credit hours.
f) Support, enhance high school career motivation programs.
g) Reward performance → college level attainment → college level effort.
h) Need culturally relevant curriculum for Alaska Native students. Research needed.
i) Forgive dual enrollment tuition if successful and agree to enter UA with 15 hours.
j) Align math, English, and science high school courses with first-year (30 hours) college courses (GERs).
k) Tech-prep plans of study – make pathways clear

l) Do college readiness progress reports … "waypoint" testing along the way in high school.
m) Expand tutor support in high school.
n) Extend class hours in high school for those who need it.
o) Fully utilize 12th grade for coursework, especially math.
p) Encourage dual enrollment/dual credit.
q) Improve math preparation of teachers.
r) Look at innovative online applications for high school students using actual UA GER lessons.
s) Insure all high school students are tested adequately along the way, so that they know clearly what their academic readiness is for college, or for specific workforce choices for Alaska jobs.
t) Invest in a vigorous and extensive teacher knowledge upgrade to go along with high school course alignment. Especially in math. They can't teach what they don't learn.
u) Incorporate community campus capability and flexibility liberally into the mitigation effort.
v) Attack the learning rate problem early so as to provide plenty of time to pace the teaching effort.

THEME NO. 2:
PRODUCTIVE PARTNERSHIPS WITH ALASKA'S SCHOOLS

- **ISSUE B.** THE TURNOVER RATE OF NEW TEACHERS IS EXCESSIVE IN RURAL ALASKA.

Lack of teacher retention contributes to chronically lower student learning outcomes. UA recruits and prepares Alaskans for the education profession and mentors teachers per the requirements of Senate Bill 241. However, UA cannot unilaterally improve the retention rate of new teachers across Alaska.

Why? Teachers, especially those with STEM credentials, find career opportunities that provide better salaries, benefits, and living conditions than those available to teachers in rural Alaska.

EFFECT

Improve professional support and working and living conditions for teachers in rural Alaska.

"SHAPING . . ." IDEAS

a) Advocate for improved salaries, benefits, and living conditions for all teachers in rural Alaska.
b) Increase efforts to grow our own Native Alaskan teachers who can return to their villages.
c) Extend teacher mentoring to all new teachers, especially in rural Alaska districts.
d) Deliver state-mandated teacher preparation courses to students at other universities interested in coming to teach in Alaska.
e) Encourage and incentivize future graduates to pursue careers in education, especially secondary STEM education, in Alaska.
f) Use the Alaska Learning Network to facilitate teacher and administrator development.

THEME NO. 2:
PRODUCTIVE PARTNERSHIPS WITH ALASKA'S SCHOOLS

- **ISSUE C.** THE STATE'S ECONOMIC POTENTIAL DEPENDS DIRECTLY ON MORE HIGH SCHOOL GRADUATES ATTENDING AND COMPLETING POSTSECONDARY EDUCATION IN ALASKA.

Alaska has the lowest college-going rate in the nation and a sizeable percentage of those who do attend either attend out of state, and/or delay enrollment significantly. Meanwhile, two-thirds of all future jobs in the state are projected to require some level of postsecondary education.

Why? Alaska has a very high proportion of low-income families that have no college-going history. Low high school graduation rates and inadequate preparation for college has resulted in low college-going rates. UA charges twice the national average tuition for community college programs, which amounts to the same as UA's baccalaureate tuition. These are facts in Alaska and they do not paint an encouraging picture of the future of the state.

EFFECT

Raise the college-going rate in Alaska, the proportion attending college in-state, and the proportion entering postsecondary education immediately after graduating from high school.

"SHAPING . . ." IDEAS

a) Recognize this condition as the single biggest education issue in Alaska. UA must partner with K-12, industry, Alaska Native corporations, and others to achieve the needed change.
b) Communicate the advantages of entering postsecondary education immediately after high school and the challenges created by delaying entry.
c) Illustrate how potential students and their families can use the Alaska Performance Scholarship, Alaska Education Grant, Pell, and other financial aid to engage in postsecondary education.
d) Have every school district offer the ACT and/or SAT, paid for by the state.
e) Reduce community college tuition to half or less of Alaska's baccalaureate tuition.
f) Persuade potential employers to join this effort.
g) Recognize the absolute priority need for the UA system and Alaska's K-12 school districts to jointly work this effort together.

THEME NO. 3: PRODUCTIVE PARTNERSHIPS WITH PUBLIC ENTITIES AND PRIVATE INDUSTRIES

- **ISSUE A.** ANTICIPATE DECLINING STATE REVENUE. PURSUE PARTNERSHIPS THAT ARE FINANCIALLY MUTUALLY BENEFICIAL AS WELL AS RELEVANT TO UA'S MISSION.

While state support is crucial to UA's diverse mission, UA must also secure partnerships that financially support their needs for cost effective, high-quality employee education and training, as well as for cutting-edge programs and research. Oil, gas, mining, health care, climate change, the arctic geophysics, fisheries, seafood, and maritime areas are priority examples.

Why? With state revenues declining, higher education is no longer just "being in the education business;" higher education must be "the business of education."

EFFECT

UA will prioritize partnerships that generate revenue in areas most relevant to UA's mission.

"SHAPING . . ." IDEAS

a) Eliminate overlap between UA and Alaska's Institute of Technology (AVTEC). Create a spirit of cooperation and collaboration to deal with this.
b) Use business case modeling to test program financial viability such as break even points, during the assessment process.
c) Where should investment dollars go? Cost/benefit analysis needed.
d) Gap analysis needed … what's the market demand in both credit and non-credit based programs?
e) Asking for budget increments to be added routinely for new programs is a thing of the past. "Reallocate" is the operative way forward.
f) Identify and implement academic programs that address expected development in the arctic in the next decade.
g) Establish criteria for evaluation of partnership initiatives.

THEME NO. 3:
PRODUCTIVE PARTNERSHIPS WITH PUBLIC ENTITIES AND PRIVATE INDUSTRIES

- **ISSUE B.** WHEN DEALING WITH PARTNERS ONE SIZE DOES NOT FIT ALL.

Potential partners have specific needs that may not be addressed through conventional approaches. This requires innovation and flexibility from UA.

Why? Employer needs often vary from traditional academic coursework and delivery methods. Public entity and private industry research needs may require a greater emphasis on applied research. UA needs the support and opportunity provided by industry and the public sector to remain relevant, and must adapt.

EFFECT

Continuously engage private industry and the public sector to anticipate and meet workforce needs and to develop and market innovative research solutions.

"SHAPING . . ." IDEAS

a) Not all education and training needs to be on-campus, for credit or semester based.
b) Explore on-site, intense short-term, non-credit, and career mobility programs with partners.
c) Research on demand?
d) Offer reliability and maintainability research to partners.
e) Quality indicators analyzed … talk to employers.
f) Single points of contact and system-wide collaboration needed for industry connections to UA programs.
g) Where do private development firms fit in?
h) Assess the potential for diverse partnerships, such as in arts and cultural expression, that further corporate relationships and address employer needs by creating more well-rounded employee-citizens.
i) Engage with industry, the state and our own liberal arts faculty to determine the educational approaches needed.

THEME NO. 4:
RESEARCH AND DEVELOPMENT (R&D) TO SUSTAIN ALASKA'S COMMUNITIES AND ECONOMIC GROWTH

- **ISSUE A.** R&D CAN PROVIDE AN EXCELLENT PATH TO ECONOMIC DIVERSIFICATION AND HEALTHIER COMMUNITIES IN ALASKA.

Alaska's economy is based on resource extraction and has only limited value added processing. R&D, including creative activity in the arts and humanities, has great potential to improve economic diversification. However, this potential is generally not recognized by the state or private industry in Alaska.

Why? Limited state support has gone into R&D. UA has not been successful showcasing its world-class resident expertise. State legislators and other leaders in Alaska do not fully appreciate how effectively university research efforts in many subject areas could be engaged, to take on a broad array of state information needs.

EFFECT

Campaign effectively to illustrate how R&D can address state needs – affordably – what the benefits are, and how we can create a new high-performing state/UA research paradigm.

"SHAPING . . ." IDEAS

a) Provide the state with a short list of researcher expertise available to apply to the governor's priority areas.
b) Engage faculty in making public presentations and writing articles that build public trust and interest.
c) Note and confront state export of research contracts. Legislation?
d) Expand intellectual property development.
e) Increase multi-disciplinary research on how Alaska can add in-state value through R&D.
f) Expand issue-oriented, condensed reports on R&D progress, commercialization opportunities, and potential value added breakthroughs.
g) Insure that there is no doubt about who is America's Arctic University.

h) Interdisciplinary includes security, adaptation of flora/fauna, Alaska transportation, ecology, environment, impact on indigenous people, to name but a few.
i) Alaska-UA aerospace programs have significant R&D potential.
j) High performing R&D faculty are paramount to the efforts.
k) R&D indirect cost recovery (ICR) is one of the very few sources of discretionary revenue UA receives besides tuition.
l) Engage the arts, humanities, and nonprofit worlds for innovative ideas.
m) Make full use of UA's commercialization offices.

THEME NO. 4:
RESEARCH AND DEVELOPMENT (R&D) TO SUSTAIN ALASKA'S COMMUNITIES AND ECONOMIC GROWTH

- **ISSUE B.** UA MUST BE AT THE FOREFRONT OF CLIMATE CHANGE RESEARCH.

Federal and international interest in arctic research is rapidly growing. At the same time, federally funded research is becoming increasingly competitive and interdisciplinary.

Why? Circumpolar communities must adapt to climate change, and UA is uniquely positioned to lead this effort, provided there is serious investment and support. Climate change and resulting community and environmental impacts are broad and profound. They compete for attention, and the money for the research is very limited in the short term.

EFFECT

Through innovative interdisciplinary approaches to climate change research and its effect on circumpolar and arctic areas, UA will be a leader in securing federal grants focused on arctic research.

"SHAPING . . ." IDEAS

a) Expand productive collaborative partnerships with other well-known research institutions.
b) Encourage undergraduate interdisciplinary research as a way to grow the next generation of Alaskan arctic scientists, and environmental researchers and engineers.
c) Further engage the humanities and social sciences to assess impacts circumpolar … like the adaptability options for remote Alaska communities to deal with flora and fauna reactions.
d) Align undergraduate and graduate programs with UA-sponsored research priorities; examine what other arctic nations are doing in this regard and compete or fill the gaps.

e) Make clear the role that UA plays in the State of Alaska's renewable energy goal that says by the year 2025, Alaska will get 50 percent of its energy from renewable sources.

THEME NO. 4:
RESEARCH AND DEVELOPMENT (R&D) TO SUSTAIN ALASKA'S COMMUNITIES AND ECONOMIC GROWTH

- **ISSUE C.** INVESTMENTS IN RESEARCH CAPACITY ARE NEEDED NOW TO KEEP UA'S RESEARCH EDGE.

External research funding is becoming increasingly competitive while UA is becoming more and more constrained by capacity issues.

Why? In Alaska state support generally has been limited for R&D, for grant and match funds, for new facility start-ups, and for salary adjustments that allow UA to compete nation-wide for top faculty. UA needs better support for faculty retention and for better research lab space.

EFFECT

Target the right research funding level for UA through a system-wide strategic calculation process that considers the niches that have the greatest payoffs for Alaska and the United States, and that establishes corresponding priorities.

"SHAPING . . ." IDEAS

a) Calculate a sustainable funding level for maintaining robust external grant match money.
b) Revise faculty collective bargaining agreements to allow for competitive recruitment and retention of research faculty through market-based competitive pay.
c) Orient UA marketing towards niched research.
d) Agree on which niches are most promising across all three universities.
e) Expand undergraduate research on UAVs, arctic studies, petroleum engineering, mining, fisheries, etc.
f) Face the hard resource allocation decisions methodologically.

THEME NO. 5:
ACCOUNTABILITY TO THE PEOPLE OF ALASKA

- **ISSUE A.** SHAPING ALASKA'S FUTURE DEPENDS PRIMARILY UPON SENIOR FACULTY AND ADMINISTRATOR LEADERSHIP.

Institutional change has a strong, natural tendency to revert back to business as usual unless the university culture changes as well.

Why? Change is difficult and threatening. A committed effort by faculty and administrative leadership to change UA culture must provide the needed support. The environment in which UA operates is constantly changing. To remain relevant and maintain a reputation for excellence, we must embrace continuous improvement.

EFFECT

Enable stable and sustainable change to take place in order to create conditions for UA's continuous improvement efforts in Shaping Alaska's Future to be effective.

"SHAPING . . ." IDEAS

a) Invest in UA leadership to be the guarantors and protectors of change stability and the agenda of continuous improvement.
b) Use outside help, such as Center for Creative Leadership (CCL), as required for implementing a successful leadership investment strategy.
c) Fully engage governance in the vetting process.
d) Avoid treating change issues as yes/no issues … seek alternatives that move UA ahead where there is disagreement as part of the acceptable resolution.
e) Refine onboarding for new senior faculty/administrator hires to be sure they "get it."
f) Don't forget governance plays an essential role.

THEME NO. 5:
ACCOUNTABILITY TO THE PEOPLE OF ALASKA

- **ISSUE B.** ALASKANS EXPECT THEIR PUBLIC UNIVERSITY TO REFLECT THE DIVERSITY OF THE STATE'S POPULATION.

Minorities are under-represented among UA graduates and employees. As long as that is the case, the full richness of what our university offers to students, employees, and the state of Alaska will not be achieved.

Why? Minorities in Alaska pursue and earn higher education degrees at a low rate. Other universities out-compete UA for minorities who pursue higher education.

EFFECT

The diversity of UA students, graduates, faculty, staff, and administrators should approximate the diversity of the population of Alaska to the greatest extent possible.

"SHAPING . . ." IDEAS

a) Increase efforts to actively recruit a diverse workforce – including selective recruitment of our own recent graduates into career pathways within UA.
b) Further establish "grow our own" efforts.
c) Work out the apparent mutual exclusion where we state support for open admission, and at the same time support stricter standards for baccalaureate enrollment at the same time.
d) Work to understand the "propensity" issue so we can overcome it.
e) Directly engage minority groups, particularly Native Alaskan leaders and elders.

THEME NO. 5:
ACCOUNTABILITY TO THE PEOPLE OF ALASKA

- **ISSUE C.** OPTIMIZE THE USE OF FLOOR SPACE, CAPACITY, AND SCHEDULING TIME TO USE FACILITIES MORE EFFICIENTLY.

Facility space must be actively managed to meet teaching, faculty, staff, and administrative needs without regard to artificial boundaries or traditional 9-5 schedules.

Why? Funding for new facilities and maintenance is limited and is likely to remain so for the foreseeable future.

EFFECT

Ensure common sense rules the effective use of facilities space to meet present and future student capacity demands. Fully utilize the calendar, the clock, and existing facilities floor space to optimally schedule student/research throughput needs.

"SHAPING . . ." IDEAS

a) Complete a comprehensive space utilization study … updated bi-annually.
b) Eliminate space silos and share space to meet the needs of all units.
c) During space renovations emphasize multiple use in the design phase.
d) Collaboration, consolidation, cooperation, innovation, articulation, conservation, determination, configuration, exploitation, justification, inspiration, communication, alteration, resolution, conversation ... and even resuscitation if required ... the only ways to make this work. It's going to be tough.
e) Use the full day (7 a.m. to 10 p.m.) for scheduling, six days a week if necessary, for meeting full and part-time student demand; we cannot afford to design and build space based on a 10 a.m. to 3 p.m. class schedule. Set and assess targets for space use outside the 10 a.m. to 3 p.m. period.

THEME NO. 5:
ACCOUNTABILITY TO THE PEOPLE OF ALASKA

- **ISSUE D.** WORLD CLASS SERVICE AT THE COUNTER AS WELL AS WORLD CLASS TEACHING IN THE CLASSROOM HAVE TO BE THE FOUNDATIONS UPON WHICH UA'S GROWING REPUTATION FOR INSTITUTIONAL EXCELLENCE DEPENDS.

Bureaucracies are famous for impersonal service. Poor service detracts from reputation and may turn the public away before they can ever experience excellence.

Why? This is a classic cultural characteristic. It can be overcome only by leadership and supervisors who unite to change the culture and them stay the course.

EFFECT

Shaping Alaska's Future must be embedded in a university-wide culture that values and celebrates world-class service at every level. Professional commitment from one end to the other must occur to make it happen and to make it last.

"SHAPING . . ." IDEAS

a) Make service a condition of employment performance.
b) Bring in the experts on service for mandatory training, idea sharing.
c) Commit to serving … students, faculty, staff.
d) Attitude – service is a skill to be proud of and rewarded.
e) Goodwill has definite value … service builds it.
f) Themes 1-4 don't reach potential without service.

THEME NO. 5:
ACCOUNTABILITY TO THE PEOPLE OF ALASKA

- **ISSUE E.** CLOSE COLLABORATION AMONG UA INSTITUTIONS IS THE *SINE QUA NON* FOR INSTITUTIONAL QUALITY, EFFICIENCY, AND ACCLAIM.

Alaska's fiscal condition over the next few years either will require a high degree of self-imposed discipline in order to significantly improve overall institutional efficiency, or it will be surely legislated.

Why? The UA Board of Regents, Alaska's legislators and other leaders will grow impatient with non-productive and expensive inefficiencies do to a lack of collaboration.

EFFECT

Determine which efficiencies merit serious consideration for system-wide strategic collaboration as the best way forward to maximize benefits to students and partners.

"SHAPING . . ." IDEAS

a) Evaluate common low enrollment courses and programs offered across the system.
b) Create opportunities for academic deans and department chairs from across the system to discuss collaboration opportunities.
c) Encourage collaboration among common academic departments to share course offerings where differing specialized accreditation is not a barrier.
d) Recognize which university programs and issues, such as eLearning revenue sharing or common course numbering, are strategic in nature with a central tendency … that is, needing a common state-wide solution in order to maximize benefit.