

Redesigning the University of New Mexico

Phase 1 Report

August 19, 2018

BACKGROUND

In an effort to meet the various significant challenges currently facing American universities and institutions of higher education, then UNM President Chaouki Abdallah commenced in 2017 a series of campus-wide conversations focused on how UNM could not only identify and meet those challenges but position itself to become an intellectually vibrant, financially healthy and community engaged institution. Subsequent to those conversations and in consultation with various administrators, faculty, staff, students, and community members, President Abdallah began in late 2017 a redesigning (formerly referred to as a reengineering) initiative. The initiative is intended to identify the primary challenges and drivers of change in higher education, assess UNM's current situation with respect to those drivers, review other research universities' efforts to respond to those drivers, and propose and implement specific recommendations for change based on UNM's unique mission, strengths and opportunities (see Appendix A: Redesigning the University: The Charge).

The Redesigning Initiative began with the appoint of a leadership committee comprised of Provost Abdallah, Senior Vice Provost Richard Wood, and Emeritus Professor Michael Dougher, who also served as initiative coordinator. Based upon the Provost's previous campus-wide conversations and the national discussion surrounding the drivers of change in higher education, especially the recent reengineering initiative at Georgia Tech University¹, the leadership committee identified six critical drivers and decided to appoint separate task forces to address each (see Appendix B for Task Force descriptions). To lead these task forces, the leadership committee invited six individuals, based on their expertise, experience, and positions at UNM, to serve as task force chairs. All six readily agreed. The leadership committee then consulted with the task force chairs and other UNM main campus and HSC faculty, students, staff and administrators to identify individuals with the knowledge, experience, and investment to serve effectively as members of each task force. In the end, 58 individuals, including faculty, students, staff, administrators and members of the community, agreed to serve as task force members (see Appendix C for a list of task force participants).

In early 2018, Dr. Garnett Stokes took the reins as UNM's new President, and Dr. Abdallah returned to his previous position as Provost and Executive Vice President for Academic Affairs. President Stokes indicated early on her support of the Redesigning Initiative and her plan to include its recommendations in a larger strategic planning process that will begin in AY 2018-2019. Given this change in leadership and the sheer size of the redesigning initiative, the leadership committee decided to split the initiative into two Phases. Phase 1, to be completed in summer '18, would focus on assessing UNM's situation with respect to the six identified drivers and generating recommendations for change. Phase 2, to begin in fall '18, would entail assessment and implementation of those recommendations. This is the final report of Phase 1.

¹ The Georgia Tech initiative as well as other reading material pertaining to the changing higher education landscape can be found on the UNM Provost's website under Initiatives: provost.unm.edu

EXECUTIVE SUMMARY

This section summarizes the reports from each of the six task forces. Each report is included in its entirety in Appendices D-I. It should be noted that the task forces were asked to generate a list of actionable recommendations rather than contemplative, scholarly white papers. The emphasis here is on generating implementable recommendations that capitalize on existing strengths and capacities, generate measurable outcomes, and position us well with respect to the drivers of change in higher education. While the task force reports are summarized here, readers are encouraged to peruse the original reports for a fuller understanding of the background, rationale and details of the task forces' recommendations.

Although the redesigning initiative formally began in late 2017, it took some time to formulate the scope of the process and finalize the task forces. Accordingly, most of the task forces didn't begin their work until early March 2018, which gave them only five months to collect and review relevant materials and resources, formulate their recommendations, and complete their reports. This was a demanding task, and it was imposed on already heavy workloads. Still, all of the task forces completed their work on time, and the leadership committee expresses its deep gratitude and appreciation to all of the task force chairs and participants.

The task force reports are included as they were received from the chairs. They vary in terms of style, format, breadth and detail. All, however, offer informed, innovative, and concrete recommendations pertinent to their topics. Some of the recommendations in these reports overlap with or pertain to the foci of other task forces, so integration across task forces will be necessary going forward. It is important to emphasize that these reports are not finished proposals but starting points for continuing discussions. In that regard many task force members stressed their interest and willingness to participate in those discussions, especially with respect to the logistics and details of implementing their recommendations. Those discussions and Phase 2 of the redesigning initiative more generally must involve the entire University community and fully engage existing governance structures where relevant.

Task Force 1: Changing demographics and needs of future learners. Advances in the science of learning and pedagogy designed to meet those needs and enhance learning (full report in Appendix D).

Taking a design-based approach to enhanced learning combined with empirically established systematic models of change, Task Force 1 offers eight recommendations (proposals) for changing educational practices at UNM. These recommendations are based on nine key insights derived from the learning sciences and recent pedagogical innovations in higher education. These insights are: 1) Learning is fundamentally a social, interactional process; 2) Learning occurs best when students are actively and reflectively engaged in meaningful tasks; 3) Learning is enhanced when students are provided *first* with interactive experiences related to a concept, which are then *followed* by information-organizing experiences such as lectures or assigned readings. 4) Learning is enhanced when students are provided with formative and explicit feedback, especially when provided with an opportunity to revise their work based upon that feedback; 5) Learning and retention are enhanced with distributed practice wherein previously learned concepts are revisited, embellished and reflected upon; 6) Students' identities affect how

and what they learn, and what they learn affects their identities; 7) Successful teaching depends on students' existing knowledge and capitalizes on their cultural resources and personal experiences; 8) Learning is enhanced when students are presented with problem solving opportunities and professional practices rather than just facts and concepts; 9) Learning is enhanced when students are provided with an opportunity to self-direct their learning and the learning process is emphasized over learning facts.

Recommendations

1. Create interdisciplinary and linked project-based courses that address local/NM issues such as crime, poverty, school violence, water resources, etc. These courses would fulfill core curriculum requirements while helping students make connections across disciplines and with professionals in the community (see also Task force 5 report, Appendix H). Once specific themes are established, faculty from different disciplines would work together to create two to four linked courses and create assignments and shared learning outcomes. Readings assignments would connect across multiple course, making core courses and/or electives more relevant to the students personal and academic goals.

2. Promote learning-focused inclusive instruction in gateway courses. Relevant data clearly show that inclusive, active-learning and adaptive-learning approaches in general education and gateway courses improve learning outcomes and student retention. Hybrid course designs (i.e., courses which combine traditional lecture methods with online or active learning activities) would be a prominent feature of these courses with students using adaptive-learning software (developed by most major textbook publishers (but see Task Force 3 report on this topic in Appendix F) to pursue individualized online learning outcomes prior to a reduced number of class sessions that are actively learning focused. Fewer class meetings allows instructors to work with smaller class sizes while maintaining the same total enrollments.

3. Enhance the relevance of the core curriculum. Related to 1 and 2, this is a specific recommendation to design and implement in the core curriculum pedagogic practices that emphasize interdependent social orientations and active learning to make core courses more relevant to students in today's social contexts.

4. Provide increased support for the development of hybrid course offerings across the curriculum and encourage effective synchronous sessions in online courses (see also Task Force 4 report, Appendix G). Greater use of hybrid course designs will improve student scheduling flexibility and decrease need for additional classrooms. Substituting roughly half of in-class time with online assignments and interactivity preserves interconnectedness desired in classroom learning while giving students more flexibility to pursue their education within the constraints of job, family responsibilities, and commuting. While for-profit educational institutions promote *convenience courses, programs, and degrees*, UNM should not fall prey to this siren call, but rather, should uphold high educational standards based on research on learning. Learning is fundamentally a social, interactional process.

Fully online courses can certainly support student learning, but research has demonstrated the critical role that multiple, well-crafted online synchronous sessions play in reducing interpersonal distance and fostering community in online courses. Such sessions allow instructors to facilitate student-centered learning that draws students into accomplishing challenging work, in part because students feel a sense of connection to and trust with one another

5. Replace UNM Learn with a more intuitive learning management system. Better and more intuitive learning management systems such as Canvas and Moodle exist and should be considered as a replacement for UNM Learn. These alternative systems afford more opportunity for instructional designers to focus on learning enhancement rather than technical issues. Accordingly, the office that provides online instruction support should be moved under the purview of those with learning expertise, such as the UNM Center for Teaching Excellence, the Organization, Information and Learning Sciences Program, or Educational Psychology.

6. Allow students to maintain access to course materials until they graduate. Because learning is a fundamentally social, interactional process, students are likely to recall and attempt to revisit information based on specific social interactions. For instance, they may recall an asynchronous discussion board in which they constructed knowledge and resolved dissonant points of view about a core concept and seek to revisit that discussion board to reflect on their progress. For academic programs that recognize the value of the reflective process, student capstone work can leverage access to earlier coursework, particularly in discussion boards, such that students can reflect on their progress.

7. Support faculty professional development at an Hispanic Serving Institution. This proposal would position UNM as a leader in equity-based, inclusive teaching by focusing ongoing faculty professional development on developing and implementing culturally-responsive, antiracist, and inclusive pedagogy. The development of these programs would be financially supported through stipends and would include diverse faculty and students from underrepresented racial groups. These opportunities would be available to all levels of faculty and to graduate students.

8. Create an effective and accessible data system and participate in national efforts to assess impacts. None of the proposed changes can be adequately assessed without access to data. Currently, faculty make decisions about programs based on partial information. Data requests are cumbersome to make and may take months to receive, and because they are so cumbersome to make initially, the data received are sometimes not the data desired. Faculty distrust some of the UNM systems (especially Banner) because they have received reports that dramatically misrepresent the number of students in a program. UNM should join national efforts- specifically, the National Survey of Student Engagement- to track student progress and impacts of changes, and these data must be available within the proposed data dashboard.

Task Force 2: Potential new populations and markets of students/learners and innovative programs to meet their needs (full report in Appendix E).

Task Force 2's report consists of two sets of recommendations. The first set consists of seven specific recommendations that could be implemented immediately and should be prioritized. The second is a more general list of the task forces' "brainstorm", inclusive of all the ideas presented for discussion without consideration of the feasibility or method of implementation. This summary focuses on the first set of recommendations.

The report identifies six "new or potential" student populations (groups), and its recommendations are built around meeting the needs of those groups. Importantly, one of the groups is existing UNM students, reminding us of the increasing importance of continuing to highlight UNM's value proposition and emerging opportunities for success (see also reports from Task Forces 3 and 4). The other five groups include Veterans, branch campus students, New

Mexico high school students attending other higher education institutions, non-traditional/returning students, and recent graduates.

Recommendations

1. Increase the offering of “non-pattern,” courses during summer and winter intersessions and 4- and 8-week course offerings during the regular fall and spring semesters. Although UNM West realized a significant source of revenue by offering winter intersession courses and most UNM main campus intersession courses carry enrollments of 75% of capacity or greater, UNM West has discontinued intersession courses, and there were fewer than 15 main campus intersession courses offered last year. Moreover, UNM offers relatively few condensed 4- and 8-week courses. Non-pattern courses are particularly attractive to returning, stop-out, and working students, and increasing the number of such offerings would not only serve as a source of additional revenue but afford all students more scheduling flexibility.

2. Offer the UNM/New Mexico core as a Managed Online Program (MOP) that can serve as a complement or pathway to existing MOPs. While MOPs now comprise the majority of our successful online degree programs, there are no MOPs that allow for completion of the UNM core. The creation of even one carousel of MOPs core courses could feed all of the existing MOP programs and increase regional and out-of-state enrollment.

3. Expand the existing Pipeline/Bridge to UNM program and the “Transition Communities” programs (UNIV 101) to serve students from the Metro-Albuquerque region *who may or may not* plan to attend UNM. UNM’s Transition Communities are popular with first-semester freshman. The program should be offered in the late summer to create a true “bridge” to higher education and expanded to recruit students from the Albuquerque metro-area who will matriculate at ANY higher education institution (community college, out-of-state university, other New Mexico institutions). This would not only provide transition support for students before they “leave home”, it would also provide a better understanding of the quality of the institution and create the potential for a future relationship with UNM, either as a later transfer student, summer school student, a potential graduate student, or simply as a future member of the Albuquerque/New Mexico community.

4. Develop and offer more interdisciplinary graduate degree programs (see also Task Force 6 report, Appendix I). Advisors report that increasing numbers of students (both returning and continuing) are seeking graduate degrees that are interdisciplinary in nature. While the idea of “breaking down siloes” across UNM departments/schools has been discussed for years, utilizing excess capacity in existing graduate courses/seminars could easily create opportunities for students who are interested in transdisciplinary and interdisciplinary study. UNM lags behind other regional universities in providing these opportunities. We propose that these programs be developed with particular focus on pre-articulation as 3/2 or 4+1 programs to retain our best students and attract new ones (see also Task Force 3 report, Appendix F).

5. Create pre-paid and post-paid tuition options. UNM does not offer a pre-paid tuition plan. We propose that UNM offer the opportunity for students and families to pay 4-years of tuition up front that would not be subject to any tuition increase contingent upon graduating in four years (i.e., pay for 4-years at this year’s rate and lock in tuition). This option has been successfully implemented at other universities and could be a useful recruiting tool. In addition, UNM should consider implementing a *post-graduation-tuition plan* especially for educators who get salary increases contingent upon degree completion. When educators move from a Level 1 to a Level 2 teacher (dependent on a number of factors, including increased education) they receive

significant increases in pay (upward of \$10,000). Our proposal for these students would be to “back load” the payment of tuition (or 0% interest loan) in order to make the completion of a graduate degree with a promised pay increase more attainable and attractive. This program could be expanded to other disciplines with similar opportunities.

6. Create a 15-credit Post-Bachelor Certificate for individuals looking to change careers. This certificate would be aimed at students who discover that: a) they are not interested in their field of study’s work opportunities, b) would like to “re-tool” and shift careers or, c) are dissatisfied with the labor market in their discipline. A limited number of pilot certificates would be created by a group of interdisciplinary faculty members, staff of career services and key employers to identify a series of 5 courses that would provide the basis for employment in high-growth or high-need jobs. Utilizing existing courses would keep costs minimal. An alternative option would be to allow a “create your own” Post-Bachelor Certificate with some input from industry professionals and Career Services (as is current practice with the Bachelor of Arts in Liberal Arts). The program would be housed in University College; tuition rates could be reduced for returning graduates if deemed necessary.

7. Expansion of Credit for Prior Learning, using Veterans as a test case. The University of New Mexico currently offers a limited amount of credit for military training. In our efforts to become a “Veteran Friendly” Campus, we propose expanding current prior learning credit options beyond the current “elective credit” option. An analysis of the “Top Schools for Veterans” identifies prior-learning credit as one of the top drivers of enrollment. Finding ways to count military training toward course credit would decrease time to a degree and increase interest in attending UNM.

Task Force 3: New external funding and internal budget scenarios/models. New potential partners and retirement options (full report in Appendix F).

This report begins with an outlook for the New Mexico state economy, state budget appropriations, and relevant demographics. From this, three implications for higher education are drawn. First, the demand for higher education among the in-state ‘traditional’ student population will be flat. Second, the slow growth of the millennial population may limit economic expansion in the state. Third, the aging of the population will likely require the State to allocate a greater share of spending to meet the needs of the elderly, drawing funds away from K-12 and higher education. A deeper dive into the economics of higher education both nationally and in New Mexico reveals that while there is year-to-year variation and differences across states, over the last several decades in the US, *the low tuition, high public subsidy model has gradually been replaced by a higher tuition, lower public subsidy, greater financial aid model*. Although it is happening more slowly in New Mexico than in most states, and current state support for higher education is still relatively high, this cost shifting onto students and families will continue to occur here as well. Thus, financial self-sufficiency in the future for UNM may require us to not only be more dependent on tuition and fees but also to pay closer attention to the value propositions we offer and our competitive positioning (for an excellent analysis of UNM’s value proposition see *Understanding the undergraduate value proposition at the University of New Mexico* by Bishwakarma and Berrens in the Reading Library section under Initiatives/Redesigning the University at provost.unm.edu). Further, many of the internal budget allocation rules we have relied on in the past were created under a high public subsidy setting and may need to be reconsidered or redesigned.

In reality, UNM main campus has been exploring alternative budget models for more than a decade. The current (and historical) main campus UNM budget model can be described as incremental base budgeting (IBB), which, while highly centralized, receives input from a broad Budget Leadership Team (BLT), albeit with a primary focus on Main Campus Academic Affairs. However, decentralized Responsibility Center Management (RCM) models have been developed and shadowed but may have been viewed as a step too far, with too many risks including the loss of central control, although an RCM variant has been successfully implemented in the last half-decade at the UNM HSC. More centralized performance-based budgeting (PPB) models were examined, including a UNM variant referred to as responsibility-oriented management (ROM), which was partially implemented but never got off the ground as UNM Main Campus kept confronting a series of annual fiscal shortfalls. Other blended variants have also been discussed and considered by the BLT, such as a “Tuition-Share” budget model proposal that was viewed by some as tied too closely to past historical cross subsidies and not a significant departure from the historical IBB model. Perhaps the take away point is that despite lots of discussion, moving to a significantly different budgeting model has been challenged by an ongoing series of fiscal deficits over the last decade that have required significant budget cuts without full tuition replacement (now approximately \$20 million to \$30 million in the annual budget for Main Campus Academic Affairs since 2008-2009, in real terms, depending on the price index chosen).

Looking forward and focusing on projections of the two primary revenue streams (public subsidy [i.e., the Instruction and General (I&G) allocation to Main Campus], and tuition), there is clear cause for concern. First, there are a variety of reasons to believe that public subsidies to higher education in New Mexico will be either relatively flat in real terms or decreasing. Second, as UNM Main Campus becomes more dependent on tuition and fees for financial self-sufficiency, there are also reasons to believe that tuition and fee revenues could be relatively flat or decreasing. Taken together, there is considerable reason to believe that UNM Main Campus could confront a combination of internal and external challenges that will lead to a continuing series of budget deficits in the decade ahead, absent significant internal changes to address these challenges. To meet these challenges, the report offers 16 thoughtful and innovative recommendations. They are listed here but a full reading of the report itself is necessary to fully grasp their rationale, complexity, and implications.

Recommendations

1. Study the allocation of research administrative support across campus to ensure that faculty have access to adequate research administrative support and staff have both sufficient training and career growth opportunities to thrive. Investment in the research enterprise is the only way to ensure that UNM retains its status as an R1 institution into the future. In addition to the direct impacts on graduate education, and to a lesser extent undergraduate education, the health of the research enterprise has impacts on the overall reputation of the institution, and related faculty and staff recruitment and retention issues.

2. Evaluate standardized options for graduated/phased-in retirement, which are widely available to both faculty and staff, and might include increased incentives for particular years (e.g., in budget years with expected fiscal deficits). The general goal of this idea would be to provide options that are developed ahead of time and pass legal scrutiny. Such phased-in retirement tools would have to be broadly known and available to both faculty and staff, avoid discrimination in use, avoid balloon buyouts or large payments to select individuals, and achieve

actual identifiable cost savings to units. Possibilities might include proposals that include state Educational Retirement Board participation and those that don't (i.e., are internal to UNM). The benefits of either approach are substantial and include: a) Ease of adjustment to retirement when identity is tied to work and employee still has something to contribute; b) Extended financial planning/adjustment period for employees; c) Contractually specified transition time with planned full retirement date; d) Retention of expertise during transition/training of replacement; and e) Improved morale as ongoing employees are not required to increase workload while empty position left by full retiree is filled.

3. Conduct an economic evaluation of delivering the general education core at UNM. Historically, the UNM Main Campus the general education core curriculum has been primarily delivered by departments in the College of Arts and Sciences (CAS) and has effectively served to cross subsidize other education services at UNM. For a variety of reasons, the core is increasingly open to competition and there is growing concern that as we compete with CNM and other institutions, we have to adopt a strategy that changes the game, because we are not going to win given its current structure. Even within the Task Force, there were differing opinions on whether the UNM Main Campus should compete on quality (e.g., thematically-connected core classes, research and community engagement opportunities linked with core classes, etc.), or compete on price while we look for ways to reduce delivery costs and approaches (e.g., look at accelerated continuous online offerings of these courses instead of the traditional semester by semester offerings). Most, basically, the argument made here is that the review of the general education core has to be connected to an economic evaluation.

4. Explore removing UNM's financial dependence on the NM Legislative Lottery Scholarship (NMLLS). The NMLLS is not needs-based, but rather implicitly generates its political support by providing broad access with relatively modest eligibility criteria for recipients. A high proportion of NMLLS funds at UNM are distributed to students with low or reduced financial needs. A smaller amount of funding with greater needs-based targeting (relative to our NMLLS funding) might be able to produce equivalent or higher enrollment, retention and graduation outcomes.

In addition, NMLLS has no clear and sustainable relationship to economic development. According to Census data, between 2011 and 2016 New Mexico experienced a net out-migration of 25,550 persons 25 year of age and older to other states. Of this total, a bachelor's degree was the highest level of education attainment for 16,950 persons. This pattern of out-migration suggests a 'brain drain' of young, well-educated persons. Although these data cannot be directly linked to NMLLS participation, it may raise the question as to whether the Lottery program is funding the education of persons who soon leave the state for employment elsewhere. As one alternative, suggested by a Task Force 3 member, UNM might propose that NMLLS participation require a commitment by recipients to remain in the state for some specified period of time (or face some kind of graduated re-payment plan). This would support the development of New Mexico's labor force, which is key to the broader goal of economic development. As a more extreme alternative, UNM might propose trading our expected share of the NMLLS funds indirectly allocated to us annually in return for some annual amount (or inflation indexed amount) that is separate from I&G, and less restrictive in allocation criteria than NMLLS funds. UNM might be able to better target financial aid by charging a higher net price for higher income households and a lower net price to lower income households.

5. Evaluate main campus' economic relationship with the branch campuses. With a current one-year extension in place on negotiated terms between the UNM Main Campus and the

Branches, now is a good time to evaluate the current fee-for service type model vs. alternative (e.g., franchise fee) models. More generally, the growth of online courses (both at the branches and main campus) and the implementation of MOPs (main campus) raise the need to economically evaluate the larger competitive/cooperative relationship between the branches and main campus. This economic evaluation can be part of larger reviews of the ways we facilitate students transferring or matriculating from UNM branch campuses to main campus (see also Task Force 2 report in Appendix E).

6. Commit to implementing an RCM budget model on UNM main campus over a 3-5-year period. Committing to implementing a decentralized, RCM budget model is probably the most far-reaching recommendation in this report. Implementation would occur over multiple years. With expected administrative transitions for UNM main campus, it would likely have to be connected to the choice of, say, a chief financial officer (CFO) with experience in an RCM system or a commitment to moving to one.

7. Create and allow modified RCM contracts for all colleges or schools that choose it. The purpose of this recommendation is to foster greater entrepreneurial opportunities from a more decentralized budget model at UNM but doing so incrementally without initially moving to full RCM. A starting point might be to consider eliminating the I&G fringe pool. Currently, employees hired with I&G money have their fringe expenses paid from a central I&G fringe pool. This leads to many distortions in the budgets used to hire employees and disadvantages units that hire employees on non-I&G money (e.g., grants), since they must include the cost of fringe benefits when hiring an employee. To hold units harmless in this, I&G budgets must be increased by the amount that was being withheld to fund the fringe pool. This would also create the incentive for units to staff more effectively and not “over-grade” positions, since the unit would see the fringe savings associated with reducing labor costs.

A more expansive mechanism would be to provide one significant direct revenue source (that a College or School can grow) while making them responsible for one significant cost (that can be reduced) and to start that responsibility from a neutral position. This could be done by implementing a modified RCM for all main campus academic units who accept the following proposition: To establish the initial neutral calculated reference point, the College or School is directly allocated a percentage of the tuition revenue they generate from all classes they teach, preferably from the upper division undergraduate and graduate classes, exactly equal to their current calculated 30% fringe costs. Then, from the beginning of the next FY, they have a claim to that same percentage of premium tuition revenue going forward and are responsible for their actual labor fringe charges going forward. They would be allowed to bank or use any net revenues generated going forward and would be responsible for deficits and debt accumulated.

8. Implement instructional or program charges for reducing general education core materials costs to students by financing in-sourcing of instructional support material for the use of open content core class texts (See also Task Force 1 report). While the average annual net cost of tuition and fees to an undergraduate at UNM is approximately \$2,300 (in 2017), the estimated annual costs of UG textbooks is approximately \$1200. Thus, leaving room and board aside, a very large slice of a typical UNM undergraduate’s academic cost goes to commercial vendors (e.g., textbook publishers). As we watch much of the student expenditure stream go out to commercial vendors, we also hold all the needed expertise to cover many of these support tools/services. The constraint is that it would be costly to develop and provide. To do so, UNM would have to find ways to help cover upfront costs for developing the materials and build a financing mechanism, which may have to include changing the ways we think about allocating

general program fees. For example, Instructional Fees (which currently can't be used for labor) or Program Charges for general education core delivery might be a vehicle to capture needed revenues to create and provide support services, while also covering this labor cost with graduate assistantships.

9. Redesign the Budget Leadership Team (BLT) process to achieve a more inclusive budgeting approach. The current BLT process is focused primarily on main campus academic affairs. However, auxiliary units that have incurred significant deficits and debt (e.g., UNM Athletics) have inevitably imposed economic tradeoffs with the main campus budget (even if only through draws on central reserves) without being a significant part of BLT discussions. In order to improve financial resiliency and minimize such externalities and irregularities, many large universities are moving towards all-inclusive budgeting processes, where units that are traditionally treated as separate from main campus academic affairs are included. Examples for inclusion at UNM would more directly include auxiliary units like Athletics (traditionally not part of BLT). There may also be opportunities to improve efficiencies if largely non-I&G units (e.g., VP for Research office) are also included.

10. Help decrease or control lower division instructional costs through graduate student Teaching Fellows reallocation. UNM confronts an increasingly competitive setting for the general education core. For example, more sources are providing fully-transferrable, and often online, offerings in-state and out, and often for a much lower price. Thus, UNM will have to re-think how we compete in this market on both quality and price dimensions, as well as how we structure labor costs devoted to core delivery. In the case of the 2018-2019 approved budget, the *entire* new money request (\$200K) for General Education in the 2018-19 budget was targeted for the funding of UNM graduate student Teaching Fellows, who would be employed in helping cover the general education core curriculum at UNM. If targeted similarly, this could be a multi-year request that can both help reduce labor costs of core delivery and provide a source of funding support for graduate student teaching fellows. The philosophy is that graduate students should be viewed as an important part of our labor pool at UNM, not just for research but also for teaching programs, and our goal should be to best use this labor supply in ways that benefit both graduate students and the undergraduate students they teach.

11. Explore implementation of an expansive in-state freshmen tuition policy. UNM Main Campus is experiencing declining enrollment, and as a result has some *excess capacity*. As such, this underlines the point that the important cost is the not average cost of educating a UNM student but the marginal cost of adding students within the current capacity. With excess capacity, we could absorb more non-resident students and have them pay the full resident rate or something close to our true marginal cost in educational delivery. Thus, one option as we move towards more price variation that better reflects our marginal cost function in educational delivery (i.e., greater use of upper division price premiums) is to make greater use of price discounting for *some select or targeted segments* of non-resident students. One possibility is to implement what might be called something like "The Good Neighbor Tuition Policy". As long as a prospective student's established home address is within, say, 500 miles of UNM Main Campus, all nonresident freshmen with a minimum ACT score of X, will be admitted and pay the in-state NM resident tuition rate as long as they accept admission by date Y. They are further guaranteed the resident rate for as long as they consecutively attend UNM. This offer could also be used to increase enrollments in a variety of graduate programs with limited graduate teaching or research assistantships.

12. Rather than adopt a new budget model, explore and establish basic principles that should be adopted if we expect to confront ongoing future budget deficits. UNM main campus has been exploring alternative budget models (e.g., RCM variants) for more than a decade; but, they never got off the ground as we kept confronting shortfalls. We need an alternative budget philosophy or set of basic budget principles that moves UNM away from incremental base budgeting, or the crisis budgeting that we have been doing, and that we can begin to implement and refine no matter what each year brings. An example of such a principle-driven approach, the 5-point philosophy called Benchmark-Shrink-Invest-Direct and Efficiency is described.

13. Economically evaluate the impacts of the “Finish in Four” scholarship, which began in 2015 at UNM. While the “Finish-in-Four Program” has admirable goals, it effectively gives a price discount to what in practice may be a group of students with high relative price inelasticity (and thus a source of lost revenue). Further, it may not be inducing a significant behavioral change, if such students were already likely to graduate in four years at similar rates. It is possible, then, that this program is operating as a demand inducement on the front end (marketing, freshmen enrollment, etc.), but, absent significant evidence of a such an effect, the net result could be a source of lost revenue with little actual graduation impact. From an equity perspective, the group of students who are likely to be able to graduate in four years may be likely to have significant accumulation of AP credits, fewer remedial needs, be less likely to have to work outside of school and more likely to come from high-income households. Thus, from both efficiency and equity perspectives, there may be much better ways to target the same amount of financial aid/price discounting.

14. Conduct a thorough review of UNM’s differential tuition (DT) policy. Public universities are making increasing use of differential tuition and program fees (as opposed to specific class fees). Use of such charges offer a variety of budgeting advantages: allowing price differentiation to capture revenues needed for financial sustainability; helping to minimize central administration costs as they may avoid implicit taxation in a centralized budgeting model; and acting as quasi-efficiency measures if based on marginal costs (MC) of program delivery and/or marginal utility (MU, or marginal willingness to pay of students with higher income expectations in their field). Increased use of differential tuition and program charges— where revenues flow directly to the unit – helps provide more voice to student program demands, as funding moves to where student demand is growing. MC and MU arguments typically are the basis for justifying differential tuition and program charges at most universities and are implicit in UNM’s 8210 general justification criteria. However, there is no evidence of any activity-based cost estimation done at UNM; further, since almost all academic programs at UNM pay significantly below market wages, then all would meet the UNM current justification criterion. MC and MU evidence in higher education is complicated and does not always conform to simple assumptions. For example, on the MU side, five of the top dozen career-earning careers at UNM (and three of the top 4), are located in the CAS, which was not allowed a hearing on their recent DT proposals.

The general issue of price differentiation at UNM becomes even more confusing when it is recognized that identical courses (with the same numbering and fully transferrable/accepted transcription) with identical delivery mechanisms (e.g., online) but sourced differently from either the main campus or branches effectively have differential tuition rates. By initial calculations, it appears that literally millions of dollars of differential tuition revenues are being generated in colleges or schools without a DT, but these units are receiving none of the revenues to cover the costs. It is not in any way clear that this is formally part of 8210, but as currently

applied, it undermines any cost-based arguments supporting many of the DT's in place. The basic idea/recommendation here is to do a thorough review of UNM Policy 8210, with a broad compilation of stakeholders. But, most generally, the idea is to review the way we do differential tuition pricing at UNM and develop a more transparent, principled, and equitable process.

15. Increase enrollments and revenues by building and enhancing improved dual degree pathways, with strengthened partnerships that break down traditional administrative barriers (See also Task Force 2, 5 and 6 reports). Certainly, a wide variety of dual-degree options already exist at UNM, but this recommendation is for expanding partnerships across traditional silos and internal barriers. The BA/MD program is an excellent example of a successful partnership between main campus and the HSC, but this could be expanded to other potential and broadly available programs (without the legislative funding base) such as BA Business/MD, BS Biology/Pharmacy, BS Exercise Science/MS or Doctorate in Physical Therapy, BS Chemistry/MS or Doctorate in Nursing, and BS Sociology/MA Public Health. Main campus should also develop and market more interdisciplinary, accelerated dual degree programs (e.g., combined BA/MA, BS/MA, BS/MS, BA/MPA or MPH) that can be complete in five years (3+2 and 4+1). Specific examples might include: BS Econ/MPA (about to be implemented); BS Criminal Justice/JD; BS Mathematics/MS Civil Engineering. In many cases, these opportunities already exist, but the recommendation is to have a collective strategy where we purposefully reduce traditional administrative barriers, better articulate the pathways for students, market them extensively, and find ways to creatively price (i.e., offer price discounts during the graduating semester of a dual [UG/GR] degree program).

16. Conduct a thorough policy review for the use of UNM main campus reserves. In a time when it may be critical to invest more in our primary academic mission (e.g., declining enrollments), there may be a need for a through policy review of the prudent level of UNM main campus reserves that should be held and their purposes. One policy question is whether we are currently maintaining too large a level of reserves (i.e., exceeding HED prudent reserve requirements of 3%), especially if we include both central administrative reserves and unrestricted reserves out in the colleges and schools. Another policy question is whether we need to look at distributed reserves out in units that are not restricted in nature and use those to invest in programs or possibly to assist the transition to an RCM budgeting model. Although an annual presentation of main campus reserves (highly dis-aggregated) is regularly made to the UNM Board of Regents, given that they are a continuing point of discussion, the time may be right to more deeply investigate policy alternatives for the use of reserves.

Task Force 4. Trends in higher education and best practices of peer institutions with respect to student services that align with UNM's strengths and mission (full report in Appendix G).

Student services at a major research university constitute a broad range of centralized and decentralized support from peers, faculty and staff. As rightly noted in this report, student support has never been more critical, as emphasis on student success has intensified to the point where every institution is laboring to improve their retention and completion rates. This report categorizes student support into three different themes by order of student encounter: enrollment services where all students touch the system by entering the ecosystem, registering and paying; student learning, which is the most important aspect of our deliverables and primarily includes what takes place in the academic environment; and co-curricular opportunities that encompasses many aspects of the student experience outside the classroom. These are expansive categories, and each contain many components. Task Force 4 narrowed the scope of their report to emphasize strategies that could be implemented in a relatively short timeframe.

Recommendations

1. Launch a new students.unm.edu website with a revised look and feel designed to appeal to students searching for answers to some of the most common problems they encounter at UNM. This tool can serve as a one-source, easy-to-remember support structure for everyone to access when in need of help. We believe a focus on assisting students who run into challenges during the enrollment services phases of the student lifecycle as well as other periods should be a one-stop information portal that can guide them, as well as faculty and staff who are also providing direction, to support resources for a long and diverse range of possible issues that students face.

2. Consider reorganizing the Division of Student Affairs. This division is the primary conduit for co-curricular programming on campus. The services are very broad with depth in some areas but a lack thereof in most, resulting in wide-ranging goals and objectives that may or may not be aligned with institutional academic and student success priorities. Duplication of effort, isolated foci, and unilateral communication often result within division activities and initiatives. There is much good work and many great personnel in Student Affairs, but a structural reorganization will benefit all including the staff and students they serve.

3. Evaluate the benefits of a scheduling model that allows students to achieve a 15-credit hour load schedule on a Monday-Wednesday or Tuesday-Thursday pattern. This would standardize the already existing tendency to creep in this direction that has been underway for some time and afford true enhancements to classroom work that would benefit students in career preparation and community engagement (see also Task Force 1 and 5 reports). Several universities are contemplating this change or have already committed to this scheduling paradigm. Institutions are recognizing the need to do more for their students than just transcribing 120 hours of credit and mailing a diploma. Accountability and workforce expectations are higher than ever, and students would greatly benefit from additional experience related to their degrees through internships, global experiences, cultural immersion or community service. There could be concern that conducting traditional structured courses only Monday through Thursday would create the appearance of a casual 4-day week which may embolden those who already question the university's work ethic. There would need to be required intentionality and accountability in the enrichment activities designed to benefit

students during Friday events. The template for this project is already constructed and could be implemented on fairly short notice.

Task Force 5: Community Engagement (full report in Appendix H)

The Carnegie Foundation defines community engagement (CE) as “the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity.” Although useful and desirable, these collaborations are not without challenge, given the traditional town and gown or ivory tower orientation that characterizes many public universities. The greatest challenge for UNM will be to extend our focus and resources beyond traditional academic and internal concerns to include those of the larger community and new ways of collaborating toward their solution.

Recommendations

1. Create a public face for CE at UNM. In particular, create a structure (office, center, institute, what it is called will evolve) that is **VISIBLE** to the community in its focus on local, regional and statewide engagement. Its explicit purpose would be to support and, more importantly, sustain community engagement initiatives through funding, design, implementation, monitoring and tracking (metrics). That entity should be housed off-campus in a space where community members have better access to its resources (it needs to be community centric). One possibility is the Innovate ABQ campus, where the center could be integrated into that collaborative’s mission. A possible name for the center is *The UNM Center for Community Engagement and Social Innovation*. Among the suggested functions of the center would be to a) advocate for funding for community engaged initiatives; b) Create a small grants program (similar to RAC and TAC) to support community engaged research and teaching; c) Create a statewide “Fulbright” program to support faculty interested in community engaged research and teaching in communities or at branch campuses; d) Design and implement residential programs for students to live and work in communities on community-identified projects; e) Work with state policymakers to research and provide useful information on policy issues; f) Create partnerships with the City of Albuquerque to create spaces for community engaged research projects; g) Add a Community Engagement tab to the UNM website so that current and future projects can be easily located and publicized; and h) House an interdisciplinary “Center for Small Towns” to support engagement in rural New Mexico.

2. Collaborate on CE initiatives with other New Mexico Higher Ed Institutions including community colleges. Specifically, the recommendation is to form a statewide “Grand Challenges Council” with representatives from all NM institutions interested in collaborating over a 4-5 year period to address pressing needs in New Mexico.

3. Leverage & Support Existing CE Programs and Statewide Networks. Use existing structures and initiatives (DEI, TREE Center, Center for Participatory Research, Project ECHO, HEROs, DPAC, iD+Pi, etc.) as conduits for expanding and support community engaged scholarship around the state.

4. Utilize CE as a Marquis of Student Experience. UNM has an opportunity to be the leader statewide and as an HSI/Research institution to make civic engagement a unique hallmark of their student experience. This engagement could be transcribed for students when they graduate and could well serve as an undergraduate research with community engagement. Focus should be placed on creating a continuum of community engagement opportunities throughout

the undergraduate experience and should include the residence halls and living-learning communities.

5. Begin an Engaged Department Initiative that would provide seed funding to academic departments looking to increase their community engaged scholarship, teaching and service.

6. Thoroughly Revamp UCAM. A repeated concern raised by members of the task force is that UNM is doing great work, much of which benefits the state of New Mexico, but nobody seems to know about it. There was unanimous agreement that UNM needs to substantially improve how it communicates both within and outside of campus.

Task Force 6: Academic Structure and Organization (full report in Appendix I)

Public universities are currently undergoing discussions about the durability, usefulness, and relevance of colleges and departments, many of which were a product of the post-World War Two, Cold War era public university. This conversation is, in part, a product of economic necessity. Universities are asking whether in a context of diminishing public investment in higher education they can continue to offer all of the programs and majors they once did.

The University of New Mexico, while in a seeming enduring financial crisis, is not yet in the position of needing to consolidate or eliminate programs as a means to ensure sustainability. Rather, a smart investment in interdisciplinary research clusters, while not primarily motivated by economic crisis, may yield a more financially-sustainable model. Our goal is to imagine policies and infrastructure that can encourage and incentivize new forms of knowledge production. This task required serious discussion about how faculty workload and reviews are conducted, how we “count” and value credit-hour production, how we align faculty research with areas of marked-distinction or “grand challenges”, and how we recruit and hire faculty.

Among the questions the task force engaged are: 1) Does the current configuration of departments and colleges encourage and enable the sort of interdisciplinary knowledge production required to solve “big questions” as well as to produce the sort of skills required for the future? 2) What infrastructure and policy revisions would be required to unleash the creative and intellectual energies of faculty who are rooted to a discipline but are also interdisciplinary or even “un-disciplined” in their approach to knowledge production? 3) Can a reimagined academic structure align the necessity to create a distinct general education curriculum at UNM as well as areas of distinction in our research productivity? In other words, can we align the core curriculum and our research priorities such that we identify “grand challenges” where UNM can brand itself as a distinct, “destination” University? 4) What is a UNM-approach to reorganization, one that draws on OUR areas of research excellence and concern? We don’t want to merely copy what our regional competitors are doing in the areas of reorganization – we are looking for UNM-specific reorganization. These are large and complex questions and require more thought and discussion than the imposed timeframe of Phase 1 allowed. The task force intends to continue those discussions but offered several recommendations that can be implemented that can be implemented now to encourage, incentivize, and programatize interdisciplinary knowledge production.

Recommendations

1. Revisit and adapt many or most of the recommendations of the “2013 Report of the Provost’ Committee on ID Studies” (this report can be found under Resources/Reports and Presentations at provost.unm.edu)

2. Offer seed funding to interdisciplinary and cross-college teams of faculty researchers interested in developing an interdisciplinary research cluster that incorporates a curriculum (including a core course and a graduate course), a time-horizon, and plans for research activity and subsequent research funding proposals. These interdisciplinary clusters should align with the OVPR-identified areas of research priorities and areas of distinction at UNM. The Provost office should draft letters of MOU for each faculty participating in the cluster to ensure that promotion and tenure policies value and recognize work in the cluster, as well as to ensure that workload expectations are clearly-defined. A broad-based interdisciplinary committee of faculty should be asked to review and select proposals for interdisciplinary clusters.

3. Re-examine and jumpstart existing interdisciplinary academic formations such as the Water Resource Program and the Interdisciplinary Film and Digital Media program should be re-examined and jump-started.

4. Graduate Studies should be made a College so that it can more easily house interdisciplinary programs and clusters.

5. An interdisciplinary committee of faculty should be appointed and chaired within Academic Affairs to evaluate and review interdisciplinary programs on a yearly basis. The interdisciplinary committee may eventually be a place to encourage or even supervise interdisciplinary hires. The committee could also play a part in P&T processes for interdisciplinary faculty.

6. Academic Affairs should consider funding cluster hires in departments based on the interdisciplinary clusters it supports. The Provost-level interdisciplinary committee should participate in searches as advisory to departments.

7. Commit to interdisciplinary research/teaching clusters that are focused on “grand challenges” that UNM researchers are especially well-positioned to solve

8. Consider policies that privilege innovation over Student Credit Hour (SCH) production. In other words, encourage cross disciplinary work even when it may lead to a reduction in department and college SCH production. Perhaps SCH should follow a faculty member’s home department regardless of where the SCH is produced.

Appendix A
Redesigning the University: The Charge²
March 8, 2018

American universities and institutions of higher learning face challenges that demand reevaluation of operating assumptions, policies, practices, structures and outcomes. The higher education landscape is changing rapidly and in uncertain ways. To meet these challenges as they pertain to UNM, the president and provost will appoint a Redesign Task Force that will engage our internal experts and community in an effort to adapt to this changing landscape and position UNM to become an intellectually vibrant, financially healthy, and community-engaged institution. The redesigning effort is not intended to serve as another overarching strategic plan that operates within current assumptions about UNM and higher education. Nor is it intended to redefine our basic teaching and research mission. Rather, the Task Force will engage broadly and creatively with UNM's various internal and external constituencies to assess challenges facing the University and propose and test specific recommendations to meet those challenges, while retaining our primary mission as a flagship public University. The charge to the Task Force is to: 1) Research and envision – within the context of UNM's mission, strength, and opportunities – the educational enterprise of the 21st century public research university; and 2) Propose a possible road map to move UNM to that vision. The Task Force's activities will include, but are not limited to, the following topics:

1. Changing demographics/needs of student populations and pedagogical innovations to meet those needs and enhance learning;
2. Potential new student/learner populations and markets for new and innovative academic/credentialing programs to meet their needs;
3. New funding scenarios, potential partners (private donors, industry, foundations, other institutions of higher learning, etc.), internal budgeting processes, and employee retirement options;
4. Trends in higher education and best practices of peer institutions with respect to student services and advising;
5. New and better ways of engaging with local and state communities;
6. Re-consideration of UNM's academic structure and organization.

² Much of the terminology and concepts in this charge were taken from similar [reengineering efforts at the Georgia Institute of Technology](#)

Appendix B
Redesigning the University³
General Guidelines and Task Force Descriptions Phase 1
March 3, 2018

General Guidelines: The Redesigning the University initiative has begun with the appointment of a chair and team of participants to each of six task forces. Each task force will rely on its collective expertise to identify external forces facing UNM and to generate recommendations intended to position UNM for financially sustainable academic success for the next 25 years. The task forces are described below, but there are general guidelines that apply to all. In conducting their work, task force members are encouraged to think broadly and creatively. Everything is on the table including existing operating assumptions and procedures, existing pedagogical assumptions and practices, existing academic structure and organization, and existing funding and budgeting models and processes. Recommendations should be data-driven and lead to assessable outcomes, embrace simplicity, be based in service blueprinting where relevant, and contribute to a positive staff and faculty work environment. Task forces are encouraged to collect and archive materials describing other institutions' efforts to respond to the challenges facing higher education, to organize brainstorming sessions, and to contact or bring to campus national leaders in higher education from outside the University.

The redesigning effort will be divided into two phases. In Phase 1, which runs through summer '18, task forces will collect information, conduct analyses, and submit their recommendations for change by July 15, 2018. Phase 2, scheduled for the 2018-19 academic year, will involve the actual implementation of the task force recommendations and assessment of their effects and potential scalability. Subsequent phases and components of the Redesign Initiative will depend upon the outcomes of Phase 2.

Phase 1 Task Forces

Task Force 1: Changing demographics and needs of future learners and advances in the science of learning and pedagogy designed to meet those needs and enhance learning.

The demographics, educational needs and learning preferences of future student populations are changing. In order to fulfill their educational mission and optimize the educational experiences of future students, universities will need to identify and proactively adapt to these changes. Critical components of that adaptation will be to identify and teach the skill sets (e.g., computational skills, communications skills, non-routine problem solving, self-management) and mindsets (e.g., adaptability, inclusiveness, persistence, flexibility, globalization, entrepreneurship) necessary to succeed in today's world. Task Force 1 should identify relevant advances in the science of learning and demonstrably effective new educational modalities, curriculum structures and learning assessment methods. This taskforce should also consider the enhanced learning opportunities afforded by undergraduate research experiences and

³ Much of the terminology and concepts in this charge were taken from similar [reengineering efforts at the Georgia Institute of Technology](#). "Service blueprinting" in higher education is borrowed from a report by Ostrom, Bitner and Burkhard titled, "Leveraging Service Blueprinting to Rethink Higher Education."

interdisciplinary study programs as well as transitioning from a “learning as information retention” model to an educational model premised on deeper learning and focused on analytic thinking and accessing reliable information. That transition should incorporate advances in the neuroscience of adult learning, and alternative means of assessing learning and satisfying curriculum requirements. The purpose of this task force is to identify likely changes in the demographics and learning preferences of future UNM students and to propose modifications or additions to the University’s pedagogic practices designed to deliver transformative learning experiences that develop the knowledge, skills, and mindsets necessary to succeed post-graduation.

Task Force 2: Potential new populations and markets of students/learners and innovative programs to meet their needs

In the future, UNM will likely see fewer “traditional” students and more “non-traditional” students. This will include increasing numbers of part-time students, students seeking additional education to enhance their occupational opportunities, students seeking specific types of educational certificates or credentials, students seeking advanced degrees on a part-time basis, and others. Task Force 2 should consider a variety of responses to these new populations, including but not limited to: expanding lower-cost, on-line degree programs, distance education programs, potential academic programs—such as the Navajo Language program—that are unique or particularly relevant to New Mexico or the Southwest, flexible semesters, expanding and formalizing the use of retirees and community experts as instructors, 4-day instead of 5-day course schedules, Veteran’s initiatives, specific programs for National Laboratory employees, and specific workforce development programs that reflect the strengths of a research university. The purpose of this task force is to identify potentially new populations or markets of students and to propose new curricula, unique and online degree programs, and other educational opportunities/programs to meet their needs.

Task Force 3: New funding scenarios/models, potential new partners and internal budgeting models and processes

New Mexico’s economic problems have resulted in severe cutbacks in UNM’s level of state funding over the past several years. Although there have been recent signs of improvement in the state’s financial picture, the future of higher education funding is uncertain. Critical to future planning for the University are accurate analyses and predictions of the state’s economic situation and available funding for higher education. In addition, UNM’s internal budgeting processes should be examined to determine whether they are best suited to UNM’s mission, especially in a changing funding environment. In this regard, all aspects of UNM’s budget should be considered, including academic affairs, athletics, physical plant, etc. The purpose of this task force is to analyze the state’s economic situation, identify likely future funding scenarios, identify alternative funding sources and potential new funding partners, review and, if warranted, propose alternative internal budgeting processes (e.g., more distributed financial governance across campus) to facilitate UNM’s research and teaching mission.

Task Force 4: Trends in higher education and best practices of peer institutions with respect to student services that align with UNM’s strengths and mission.

In response to changing demographics and future trends in higher education, it is critical that universities examine and adapt their approach to student services and educational practices. Task

Force 4 should consider student outreach and recruitment, advising, course scheduling, methods of demonstrating academic competence and satisfying curricular requirements, optimal use of summer sessions, community internships, financial aid, campus environment, extracurricular activities, etc. Several universities have successfully adopted a service blueprinting or “customer’s perspective” approach to student services in an effort to better align those services with student needs. The purpose of this task force is to review trends in higher education and best practices of our peer institutions with respect to student services and to propose recommendations within a service blueprinting model that best align with UNM’s strengths and mission.

Task Force 5: New and better ways of engaging UNM with the local community.

Universities across the country are increasing their engagement with local communities to their mutual benefit. As the state’s flagship University, UNM already plays a prominent role in the local community, but there is considerable potential benefit to enhancing that engagement in new and innovative ways. The purpose of this task force is to review the community engagement efforts of other universities and propose ways for UNM to improve and expand its community engagement.

Task Force 6: Academic structure and organization.

Like most universities, UNM is discipline-centric in that departments identified by academic discipline are the fundamental administrative units. While this defines the status quo, it creates both administrative and pedagogical redundancies that consume resources that might otherwise be used to advance UNM’s teaching and research mission. Moreover, it detracts from efforts to move toward more interdisciplinarity in both research and teaching, which is a clear trend in higher education and research-funding institutions. Some universities, most notably Arizona State University, have successfully reduced administrative costs and facilitated interdisciplinary scholarship by combining departments into larger, thematically related schools and programs. The purpose of this task force is to explore, with a focus on UNM’s unique opportunities and strengths, possible reorganization scenarios and to propose a process by which those with a high probability of success will be implemented and assessed.

Appendix C
Redesigning the University
Task Force Assignments PHASE I
March 22, 2018

Task Force 1: Changing demographics and needs of future learners. Advances in the science of learning and pedagogy designed to meet those needs and enhance learning.

Chair: 1. Vanessa Svihla

Members:

2. Aeron Haynie
3. Noah Brooks
4. Tim Castillo
5. Bethany Davila
6. Sonia Rankin
7. Paul McGuire (HSC)
8. Gary Smith (HSC)
9. Laura Musselwhite (Valencia)

Task Force 2: Potential new populations and markets of students/learners and innovative programs to meet their needs.

Chair: 1. Rob Del Campo

Members:

2. Nasha Torrez
3. Pamela Pyle
4. Alonzo Maestas
5. Mahmoud Taha
6. John Benavidez
7. Trajuan Briggs
8. Anna Nogar
9. Matt Heulett
10. Patrick Valdez (Gallup)

Task Force 3: New external funding and internal budget models/scenarios. New potential partners. Retirement options.

Chair: 1. Bob Berrens

Members:

2. Jeff Mitchell (BBER)
3. Gene Henley
4. Shawn Berman
5. Norma Allen
6. Nicole Dopson
7. Patricia Henning
8. Vahid Staples
9. Ava Lovell (HSC)
10. Bev Kloeppel (Retiree Association)

Task Force 4: Trends in higher education and best practices of peer institutions with respect to student services that align with UNM's strengths and mission.

Chair: 1. Terry Babbit

Members:

2. Charles Paine
3. Cynthia Rooney (Los Alamos)
4. Mala Htun
5. Tim Gutierrez
6. Shirley Ray Lovato
7. Marcos Roybal
8. Ryan Gregg
9. Fran Wilkinson
10. Todd Hynson (HSC)

Task Force 5: New and better ways of engaging UNM with the local community.

Chair: 1. Monica Kowall

Members:

2. Doug Brown
3. Leslie Hoffman
4. Gus Pedrotty
5. Mark Childs
6. Hakim Bellamy
7. James Malm
8. Mary Clark
9. Lisa Cacari Stone (HSC)

Task Force 6: Academic Organizational Structure

Chair: 1. Alex Lubin

Members:

2. Pamela Cheek
3. Julie Coonrod
4. Kymberly Pinder
5. Geraldine Forbes
6. Jeremy Edwards
7. Melanie Moses
8. Irene Vasquez
9. Janie Chermak
10. Kathy Powers

Appendix D
Phase 1 Final Report Task Force 1



Task Force 1: Changing demographics and needs of future learners. Advances in the science of learning and pedagogy designed to meet those needs and enhance learning

The demographics, educational needs and learning preferences of future student populations are changing. In order to fulfill their educational mission and optimize the educational experiences of future students, universities will need to identify and proactively adapt to these changes. Critical components of that adaptation will be to identify and teach the skill sets (e.g., computational skills, communications skills, non-routine problem solving, self-management) and mindsets (e.g., adaptability, inclusiveness, persistence, flexibility, globalization, entrepreneurship) necessary to succeed in today's world. Task Force 1 should identify relevant advances in the science of learning and demonstrably effective new educational modalities, curriculum structures and learning assessment methods. This taskforce should also consider the enhanced learning opportunities afforded by undergraduate research experiences and interdisciplinary study programs as well as transitioning from a "learning as information retention" model to an educational model premised on deeper learning and focused on analytic thinking and accessing reliable information. That transition should incorporate advances in the neuroscience of adult learning, and alternative means of assessing learning and satisfying curriculum requirements. The purpose of this task force is to identify likely changes in the demographics and learning preferences of future UNM students and to propose modifications or additions to the University's pedagogic practices designed to deliver transformative learning experiences that develop the knowledge, skills, and mindsets necessary to succeed post graduation.

Task Force Members

Chair: Vanessa Svihla

- Aeron Haynie
- Beth Davila
- Gary Smith
- Laura Musselwhite
- Tim Castillo
- Becka Myers (student)
- Brendon Gray (student)
- Paul G McGuire
- Sonia Rankin

Process

The chair oriented the taskforce to the problem framing process she envisioned, informed by the success of the UNM FACETS project (<http://facets.unm.edu/>), the design-based implementation research model created by the learning sciences field, and systemic change models (Figure 1). The chair also provided access to a short course on the *lack* of research basis related to learning styles/preferences (open and available here: <https://canvas.instructure.com/courses/1253752>).

Taskforce 1 held meetings as follows:

- 4/9/2018: Charge the taskforce; set vision, establish process
- 4/23/2018: Identify stakeholder needs; differentiate from solutions
- 5/7/2018: Use wrong theory protocol to launch ideation process
- 6/4/2018: Narrow proposal ideas (tentative solutions) based on identified needs
- 6/18/2018: Match proposals to task force members, gather relevant theory, research & practice knowledge/precedent
- 7/16/2018: Review draft proposals and identify gaps

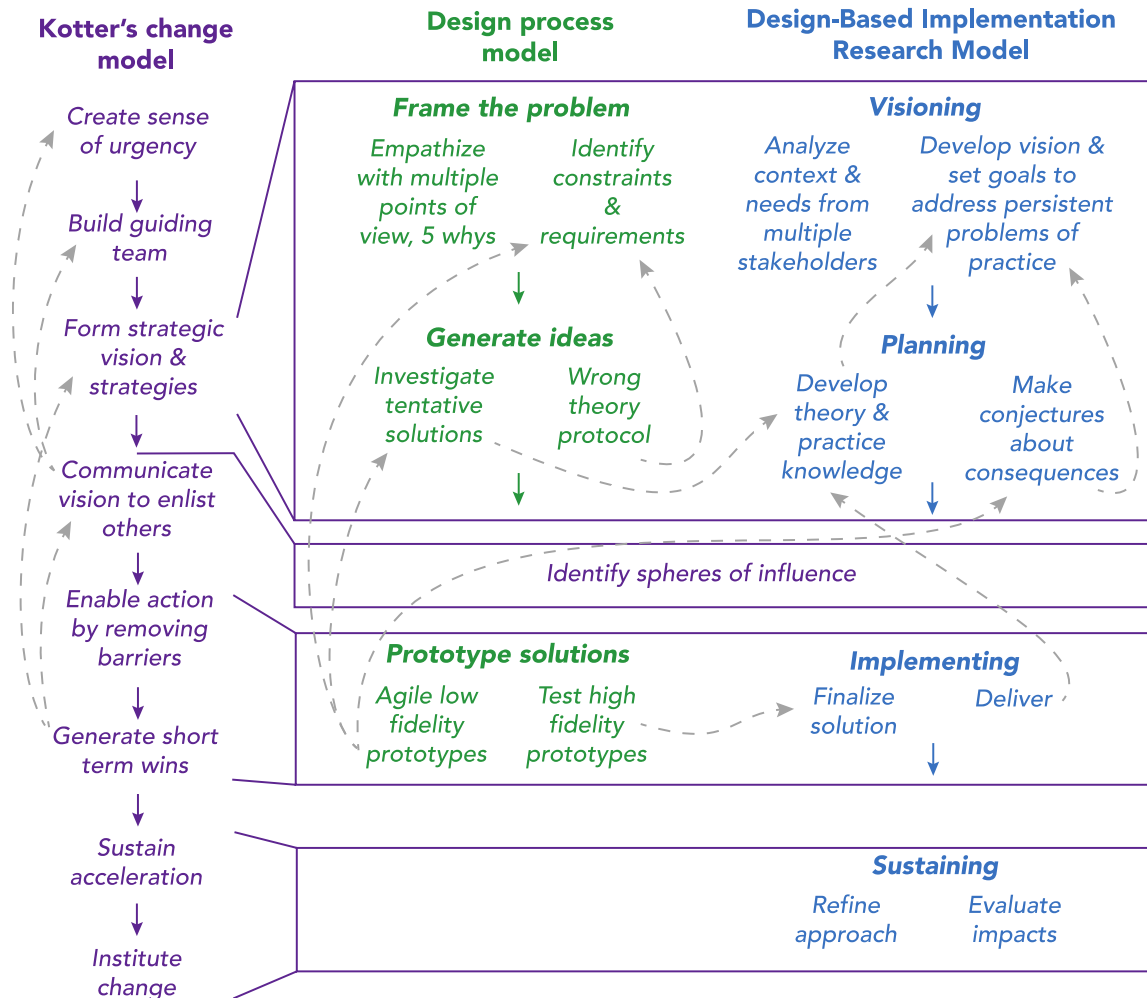


Figure 1. Change model adopted by Taskforce 1 to guide our problem framing process, adapted from change models [1-3] and design-based implementation research [4-12]

On-going/Future work

Members of Taskforce 1 propose to do the following:

- Several draft proposals remain incomplete, especially with regards to implementation strategies and budgetary impacts. Specifically, members envisioned the kinds of differentiated impacts possible due to non- or under-funded initiatives versus adequately funded initiatives. Members would like to continue to contribute additional information to this end.
- Draft proposals could be enhanced through deeper review of resources, and should any of the proposals be pursued, taskforce members have additional resources and information they can provide.
- Members have discussed but not drafted their evaluation of individual versus collective impact of proposed actions. Members would like to clarify this, however, after reviewing the reports from other taskforces.

- As faculty set travel summer schedules early in the Spring semester, meeting after the Spring semester ended typically were attended by 2-4 people. Members are committed and interested but have competing commitments that could not be changed. Some additional proposal ideas were not developed, but could be, and there is interest among several members to pursue this.

Overview

The following key insights from the learning sciences and related research on higher education (e.g., <https://www.aacu.org/leap/hips>) provide a foundation to all proposals put forth by the Taskforce; these insights work best in tandem, rather than piecemeal:

1. Learning is a fundamentally **social, interactional process** [13-18]. This does not require face-to-face interaction, but online course learning is enhanced when there is a sense of community and trust.
2. Learning is best supported when students are **actively and reflectively engaged** in **meaningful tasks**. There are many variants of this process, but most include (a) **assessing** student prior understanding/experiences, and (b) then providing an **experience** for students to make sense of *followed by* (c) some form of **information-organizing** experience (such as direct instruction, conducting a literature review, conducting analysis) and (d) scaffolding students to **reflect** on both how and what was learned [15, 19-23].
3. **Sequencing and productive failure**. Note that the sequence above emphasizes experiences prior to lecture. This sequence is well-backed by research [15, 19-23] yet rare in practice; students typically hear a lecture then complete a lab or activity. Or, faculty "flip" instruction, expecting students to access information prior to in-class activity. Providing an experience to make sense of or challenging problems to work on during class meeting times is more effective when followed—not preceded—by more direct forms of instruction. Faculty sometimes fear students may experience failure in such cases. However, by framing student work as generative and allowing students to collaboratively work on and even fail to solve ill-structured, complex problems carries a benefit when later working individually on semi-ill-structured, complex problems [24-27].
4. Incorporating **feedback-and-revision**, in which formative feedback is explicit and usable by the student, especially when combined with an opportunity to reflect, improves learning [28-30]. In general, withholding numeric scores or letter grades on draft work enhances mastery orientation.
5. **Distributed practice**. For students to retain what they learn, they need sufficient initial learning opportunities and opportunities to revisit, restudy, and reflect; this is called distributed practice or the spacing effect, and it demonstrates that cramming is ineffective, whereas cumulative learning approaches are effective [31-35].
6. Learning is coupled to **identity development** [36-39]; how students are identified by others (e.g., academic programs, faculty, their peers, their families, prospective employers) affects the learning opportunities they gain access to, and what they learn affects how they identify themselves (e.g., as an engineer, teacher, pre-med, geologist, etc.).
7. Successful teaching builds on students' **funds of knowledge, cultural resources and assets**. For instance, many New Mexico students bring creative problem-solving skills from their

daily life experiences. **Culturally responsive / sustaining teaching** positions students as having strengths and then builds on those strengths, which supports student engagement and learning [40-55].

8. **Interdisciplinary and disciplinary learning through projects/problems.** With the dawn of the information age, learning scientists have increasingly argued for and shown the benefits of organizing instruction around (inter)disciplinary problems and practices rather than focusing on facts and concepts, as these may be acquired in tandem. Coursework that engages students in **authentic yet scaffolded disciplinary practices** such as through **project-based learning** and **design challenges**, invites students to try on possible identities, and this supports learning and persistence [56-65]. Interdisciplinary, multicourse approaches can enhance student engagement and improve graduation rates [66-69].
9. **Agency and Ownership.** In order to develop a sense of ownership and ability to self-direct their learning, students need to have agency over consequential aspects of their learning. [37, 70-78]. Faculty tend to restrict learner agency when they feel pressure to "cover" content. To shift from a classroom culture of knowing to a culture of learning, learner agency—especially over challenging aspects of disciplinary practices (e.g., defining problems, posing questions)—is critical.

Proposals for changing learning at UNM

This report *summarizes* the proposals for changing learning at UNM. Longer, more detailed reports may be available upon request and after further refinement/revisions.

Proposal 1. [Create interdisciplinary, linked, social justice courses](#)

Incentivize the creation of real-world, interdisciplinary, linked, project-based courses that address local/NM issues (school violence, immigration, sustainable access to safe water, poverty, abandoned mines, pollution, radioactivity, racism) from a social justice standpoint. These issues are sociotechnical in nature, and not resolvable from mono-discipline points of view.

These courses would fulfill core curriculum requirements while helping them to make connections across disciplines and from college to the community. Specifically, the courses will allow students to understand connections between and among fields as well as identify distinctions in the ways that different fields approach issues that have relevance to communities.

Two to four courses will be linked, allowing students to tackle more ambitious problems. Once a theme is established, faculty from different programs will work together to create assignments and shared learning outcomes. Readings and assignments will connect across multiple courses, making core classes or electives feel more relevant to their personal goals. The assignments in these courses will connect the larger issues to social problems through project-based deliverables such as (1) educational materials for others (e.g., infographic or pamphlet for specific audiences, curricula for a middle school, or workshop for a community group); (2) policy/action materials (e.g., writing policy, letters to representatives, campaigns); (3) presentations of data (e.g., data sets in Tableau or similar or analysis of data presented in relevant formats for specific audiences); (4) conceptual designs and low fidelity prototypes, which could be entrepreneurial in nature (and presented as pitches, or with market plan).

This model might require longer class periods for these “jumbo” courses. However, it could borrow some of the structure and learnings from the learning communities coordinated through University College.

A key consideration for successful implementation is faculty compensation for the extra time involved in coordinating with one another. Note that other institutions that have successfully implemented interdisciplinary (or “integrated”) courses or programs of study have worked to make sure faculty “receive full credit” for the work [66], which includes a consideration of teaching load and tenure and promotion expectations.

Interdisciplinary majors have increased in recent years and can result in “increased critical thinking abilities, higher order thinking and deeper learning, content mastery, creative problem solving, teamwork and communication skills, improved visuospatial reasoning, and general engagement and enjoyment of learning” [66].

Proposal 2. Promote learning-focused inclusive instruction in gateway courses

Incorporation of evidence-based practices for teaching and learning, including inclusive, active-learning, and adaptive-learning approaches in general education and gateway-to-major courses will improve learning outcomes and student retention. Courses that currently rely heavily on lecture pedagogies will become more inquiry directed with higher learner engagement in learning through authentic and or relevant problems and cases. Hybrid course designs could be featured prominently in the designs, with students using adaptive-learning software (developed by most major textbook publishers) to pursue individualized, assessed online learning prior to a reduced number of class sessions that are active-learning focused. Fewer class meetings mean that instructors can work with smaller-sized classes while maintaining the same, total enrollments. Smaller class sizes facilitate active learning. Hybrid scheduling also makes better use of preferred classrooms (e.g., UNM’s learning studios) and preferred class times.

Faculty stakeholders would need to be open to instructional change and fully supported in the transition to new approaches by CTL and Extended Learning, both of which would likely require additional staff. Departments teaching the affected courses would need to be held accountable by deans for their participation in the program and provide appropriate individual performance recognition to the faculty who carry the load of instructional change for the department.

Although it is difficult to imagine great improvements in student learning and affective outcomes with continuously improving instruction and faculty-student interaction to meet the needs of changing student bodies, faculty are also viewed as the principal barriers to these changes. The highlighted improvements in student graduation at Georgia State University purposely sidestepped almost all instructional initiative for this reason [79].

Success will be revealed through lowered DFW rates in the redesigned courses, higher retention to the third semester, and better documented preparation for successive courses in gateways to the majors. In particular, there will be disproportionate improvements in these metrics for first-generation students. Based on models from other institutions, such a plan would gradually and incrementally impact a growing number of courses. If focused on high-enrollment courses, the impact could approach 100% of students who initially matriculate as freshmen at UNM.

Given experiences at other institutions, the biggest barrier is developing a resolve to change and better serve students. The biggest barriers are changing of syllabi and perceptions of teaching by many faculty. Changing approaches to rewarding faculty work in teaching are likely

necessary in order to incentivize support for the risks involved in changing how a person teaches.

Faculty development support is essential to help overcome this barrier. This will require the cost of adding qualified instructional designers to work with faculty. Graduate assistantships could provide another form of support to faculty and help prepare doctoral students as future faculty members. An adaptive learning coordinator position may also be needed to coordinate software contracts and assist faculty in best practices and how to use the software.

Institutional commitment to changing how high-enrollment (typically general education and gateway) courses has precedent elsewhere. At Miami University, there was a \$1M institutional commitment from the President to redesign the “Top 25” courses, defined by enrollment size [80, 81]. Every department teaching such a course was required to develop a plan for each course and see it through to completion with assistance of a mini-grant and a strong support from faculty development and assessment offices. Starting in 2006, \$500,000 was set aside annually to support redesign of high-enrollment courses through Arizona higher education. Much of this work followed well-tested strategies of the [National Center for Academic Transformation](http://www.thencat.org) (<http://www.thencat.org>), which included cost-effective replacement of classroom time with online learning, especially with adaptive-learning tools. Although not documented clearly online or in print, I know that Arizona State University has continued this effort to the present time with a focus on hybrid classes that make use of [adaptive-learning software](#) combined with classroom learning in their Collaborative Learning Classrooms (aka [learning studios at UNM](#), active learning classrooms at many other universities). These types of classrooms were identified by [Educause](#) as the leading educational technology for 2017 in surveys across US universities. The University of Michigan took an even larger view of transformative teaching at all levels with \$20M support over about 5 years built around foci in creativity; intercultural engagement; social/civic responsibility and ethical reasoning; communication, collaboration, and teamwork; self-agency; and the ability to innovate and take risks [82].

There have also been a number of large-scale course and curriculum redesign projects focused in STEM at the institution level [83, 84] or system level, in the case of California State University [85, 86]. These approaches are applicable more generally across higher education disciplines and provide lessons for implementation. Notably, Wieman [84] calls attention to the fact that these sorts of projects require sustained, institutional support and should not rely on external funding. This is certainly well demonstrated by [UNM’s STEM Gateway Program](#), which had many successes and surfaced resolvable challenges but lacked university support beyond the 5 years of external funding; successes were largely restricted to departments with supportive department leadership. The common denominator in all of the STEM and non-STEM approaches summarized above from outside UNM is that institutions committed funds, faculty participated through internal proposals and were supported by enlarged faculty development programs and incentives.

The benefits of active, collaborative learning on student achievement have particularly been documented in STEM fields [87] because of access to funds for considerable education research, rather than because of discipline. In particular, life-science-education research shows disproportionate benefits for first-generation students and students of color, closing traditional achievement gaps [88, 89]

A conceptual framework for understanding and designing these beneficial instructional interventions comes partially from anthropological/sociological and cognitive psychology research. Nicole Stephens and colleagues [90, 91] have developed the cultural mismatch theory, which argues that students from working-class and some ethnicity-based cultures are accustomed to interdependent epistemological and social orientations that are contrary to the independent orientations that are most common among higher socioeconomic groups and also, notably, of many universities. Thus, universities increase, rather than decrease inequality. Similar concepts have been developed in the Southwestern cultural context by UNM scholars [92, 93]. In addition, these social orientations are known to correlate with measurable and observable (e.g., neurological scans) differences in how people acquire and process information [94, 95] and these cultural differences in cognitive style [96] are much more robustly demonstrated than mythical learning styles [97-114]. In particular, interdependent social and epistemological orientations correlate to holistic cognitive styles whereas independent approaches correlate to analytical cognitive styles. Together, these results provide a basis for understanding why first-generation students from less privileged learning environments would flourish in well-structured, social, active-learning contexts. The fact that no students are disadvantaged by interdependent-supportive curricula likely relates to active learning being more natural to cognitive processes that evolved for hundreds of millennia before the first college classroom.

Adapting approaches from other institutions should include close scrutiny of their successes and failures, much of which is not published and would require direct consultation with appropriate individuals at those institutions. Pilot processes, and iterative, design-based approaches will likely be better than wholesale, campus-wide implementation.

In terms of rewarding faculty, the institution could continue the stipends given to the Academic Affairs Core Curriculum Fellows – or could commit to scaling up the Fellows program and giving the next iteration a hybrid focus. Arts and Sciences has already adopted a teaching portfolio as a way of demonstrating teaching excellence/competence for promotion and tenure (and A&S teaching awards). UNM could encourage other colleges to adopt this policy, as it coheres with the teaching document GS mentioned.

[Proposal 3. Enhance the relevance of the core](#)

Related to proposals 1 & 2 we propose to design and implement curricula and pedagogy using evidence-based practices, especially in general education/gateway courses, that emphasize interdependent social orientations to make core courses more relevant to students in today's social contexts. This could be done through a multi-year, incremental reform within faculty learning communities (or communities of practice) associated with extensive faculty development support.

Curricula, especially in the general education core and other critical gateway courses to majors, would be “owned” by departments or colleges and not by individual faculty members. Adoption of effective practices by isolated faculty does not impact all students enrolled across different sections and is not sustained when instructors – commonly TPTs, visiting faculty, graduate assistants – are constantly changing. Best-practices curricula and pedagogical tools would be developed with expert assistance and then curated for expected use by everyone, with ongoing instructional development in departmental communities of practice and improvements driven by approaches such as lesson study that benefit all class sections. It is important to note that

this would not be a mandated practice across the entire core. The hope is that certain departments with general education courses would volunteer to participate, and the practice would grow from there.

Once a curricular framework has been established, we want to provide students in the course sections with more of a role in how the subject matter is presented, which would help to provide relevance, empowerment, and engagement. This work could take various forms, such as brainstorming sessions on how students view the subject and its relationship to their current worldview. A key element to such discussions would be faculty-guided inquiry as to how the subject relates to students and their experience, plus gleaning input from them on how to make connections between the material and the student experience. These discussions might only last one or two days and would not be designed to replace the curricular framework. The student input, rather, would be used to highlight appropriate moments/topics in the course to further the cause of student engagement. Guiding the discussion and incorporating the feedback into the class will demand a good bit of training and flexibility on the part of the faculty member.

Success should be approached from the point of view of both the student and the faculty member. A different type of course evaluation form could easily reflect the curricular/pedagogical changes and how the students viewed the course as a part of a whole body of knowledge. There could be checkpoints along the way as students progress through their first two years where they are asked to make an intellectual connection between material in at least two of their courses. Also, an assessment provided at the end of the first two years could ask for student views on the core curriculum as a whole. In the best of all possible worlds, 100% of students should indicate that their experience with general education was relevant and meaningful on some level. If we don't at least 75% who indicate a positive experience, then the program is not being successful. For the faculty, it is important that they feel students are more connected to general education, but also that they as teachers feel more invested in it. The communities of practice and faculty training are significant investments of time and talent, and faculty need to participate in periodic focus groups to unpack their work and tweak the process for others.

There could be potential pushback from faculty and/or department chairs related to all three elements of the proposal: using new pedagogies, departmental "ownership" of core courses, and gathering student input. All of these will require change to existing practices and training, which could impact budget and will definitely impact workload. Ideally, faculty would be compensated (either in time or money) for their efforts. The training piece could also be expensive, and even if most of it is done through the Center for Teaching and Learning, that would tax their internal resources.

Departments would need to champion the efforts and explain why and how the concepts are beneficial. One unintended consequence would be for courses to become too similar and for faculty to feel that they have lost the academic freedom to present the material in their own way. This would certainly not be the intention, and a publicity or good-will campaign might be necessary. It will also be important to remind people that all departments are not mandated to participate. Departments should consult with faculty members and gauge interest in the program.

Proposal 4. Provide increased support for hybrid course offerings and encourage effective synchronous sessions in online courses

Greater use of hybrid course designs will improve student scheduling flexibility and decrease need for making more classrooms. Substituting roughly half of in-class time with online assignments and interactivity preserves interconnectedness desired in classroom learning while giving students more flexibility to pursue their schoolwork within the constraints of job, family responsibilities, and commuting (using the National Center for Academic Transformation's replacement model) along with increasing use of learning studio classrooms for active learning during the face-to-face time.

While for-profit organizations promote *convenience courses, programs, and degrees*, UNM should not fall prey to this siren call, but rather, should uphold high standards based on research on learning. Learning is a fundamentally social, interactional process

Fully online courses can certainly support student learning, but research has demonstrated the critical role that multiple, well-crafted online synchronous sessions play in reducing the distance and fostering community in online courses [115]. Such sessions allow instructors to facilitate student-centered learning that draws students into accomplishing challenging work, in part because students feel a sense of connection to and trust with one another [116, 117]. Research suggests that such sessions are less important in strong cohort models once students have established trusting relationships—often through brief residential experiences or sustained online synchronous sessions [118]. Therefore, in programs like UNM's MOP, synchronous sessions should be emphasized in every course due to the expectation that new students may enroll at any course. Impacts of synchronous sessions could be tracked using the Community of Inquiry measure [119]. Research contrasting online courses with only asynchronous to those with synchronous meetings highlight that this is an **equity issue** because White males tend to persist without synchronous meetings, whereas courses that included synchronous sessions supported persistence of all students [120].

Professional development, therefore, is needed for both supporting hybrid course design and effective synchronous session design. Likewise, other learning management systems (LMS) or configurations of Learn should be explored to support synchronous sessions. For instance, the Canvas LMS free-for-teachers accounts allow faculty to host synchronous video sessions with 100 users or more, whereas UNM's instance of Learn limits this to just 6.

In order to implement a hybrid approach to redesigning gateway courses, there would need to be collaboration between CTL, Extended Learning, and possibly OILS. Currently, Extended Degree only supports 100% online courses. There is no official support of hybrid courses at UNM. However, a redesign plan focused on inclusive pedagogy within hybrid courses would allow greater access to the Learning Studio classrooms. (Side note: right now, UNM leadership is considering what to do with Instructional Design team formerly directed by Becky Adams/NMEL. There seems to be a lot of interest in how to support MOPS, but not on how to use instructional designers in faculty development.)

We propose building on the upcoming 2018-19 ACADEMIC AFFAIRS CORE CURRICULUM FACULTY FELLOWS that's being spearheaded by Associate Provost Pamela Cheek. This Fellows Program allows Faculty to work collaboratively on chosen areas of engagement (Innovation, Community-Engaged Learning, Writing Across the Curriculum, Race and Social Justice, Undergraduate Research, and Global Awareness) in order to make their gateway courses more

learner-centered and increase retention and student learning. Perhaps Associate Provost Cheek would consider structuring the next iteration of the Core Curriculum Fellows around hybrid pedagogy?

A hybrid teaching fellows program focusing on gateway courses should also involve graduate students. This would provide additional support for faculty and give graduate students marketable experience in teaching hybrid courses. A successful hybrid teaching program could attract graduate students looking for robust, evidence-based teaching experience.

[Proposal 5. Replace UNM Learn with a more intuitive system](#)

We recommend replacing Learn with a more intuitive LMS. While Canvas would seem to incur some additional cost, it should be considered. Moodle, which would incur less cost, is open source, and has core values that align to UNM, should also be considered. Faculty input should be sought in a structured manner that helps faculty make decisions based on student engagement and learning, rather than expediency/convenience.

When students log in, they will see an easy to navigate system. When faculty provide feedback to students, they will be able to use video or audio feedback, focusing on specific and global revisions, rather than line edits. Navigation will be easy and intuitive. Allow face-to-face courses to be designated as web-enhanced perpetually, meaning if requested once, each new offering of the course will automatically be web-enhanced, unless the request is canceled. Alternatively, allow instructors to web-enhance within the LMS.

When working with faculty to design courses, the instructional designers will be able to focus on enhancing the degree to which courses support learning, rather than the technical issues, as is primarily the case now.

To support this, the office that provides support for all online instruction can best be managed by coming under the purview of those with expertise in learning, such as the UNM CTL, the Organization, Information & Learning Sciences program, or Educational Psychology.

[Proposal 6. Allow students to maintain access to courses after course ends](#)

Allow students to retain access to their courses, including content and all course participation, after the course ends and until they graduate. We conducted a survey of 19 universities, finding that 17 of them allow students to access their courses at least one semester after the course ends. In most cases, universities allowed students to access their courses until they graduated. A very few allowed faculty to control access. Faculty from the two that like UNM did not permit access expressed frustration over this. The 17 included:

- Appalachian State University
- Boston College
- Buffalo State
- Columbia
- Georgia State University
- Indiana University
- Indiana University–Purdue University Indianapolis
- Lewis & Clark
- Penn State
- Purdue University
- Roger Williams University

- Rutgers
- University of Chicago
- University of Minnesota
- University of Tennessee
- University of Texas at Austin
- University of Washington @ Bothell
- University of Washington @ Seattle
- University of Wisconsin @ Madison

We recommend allowing students to maintain access to all course materials and interactions until they graduate. Because learning is a fundamentally social, interactional process, students are likely to recall and attempt to revisit information based on specific social interactions. For instance, they may recall an asynchronous discussion board in which they constructed knowledge and resolved dissonant points of view about a core concept and seek to revisit that discussion board to reflect on their progress.

For academic programs that recognize the value of the reflective process, student capstone work can leverage access to earlier coursework, particularly in discussion boards, such that students can reflect on their progress.

Proposal 7. [Support faculty professional development \(PD\) at an HSI](#)

This proposal seeks to additionally support faculty professional development (PD) both in terms of creating an institutional value for PD and by creating PD opportunities that focus on what it means to teach at an HSI. These opportunities would be available to all levels of faculty and to graduate students.

This proposal would position UNM as a leader in equity-based, inclusive teaching by focusing the ongoing faculty PD on developing and implementing culturally-responsive pedagogy, antiracist pedagogy, and inclusive pedagogy. The development of these programs would be financially supported through stipends and would include diverse faculty and students from underrepresented racial groups.

These PD opportunities would come with continuing education credits that would be included in tenure and promotion criteria and would be transcriptable for graduate students. PD would begin at New Faculty Orientation would be a yearly expectation.

Proposal 8. [Create an effective and accessible data system and participate in national efforts to assess impacts](#)

None of the proposed changes can be adequately assessed without access to data. Currently, faculty make decisions about programs based on partial information. Data requests are cumbersome to make and may take months to receive, and because they are so cumbersome to make initially, the data received are sometimes not the data desired. Faculty distrust some of the UNM systems (especially Banner) because they have received reports that dramatically misrepresent the number of students in a program. Other universities, such as the University of Michigan, use or have found means to integrate data systems and provide a means for faculty to pull data sets for analyzing the impact of their teaching. Such a system would require training on ethical uses of data in order to gain access but should require little training on how to use the system, because the system should be intuitive. Likewise, training would be needed for department/unit heads and deans to convey the exploratory nature and possibility of

implementation dips in the first year of use; the potential impact of curricular changes is sometimes not visible in the first round of implementation, even when if well-grounded in research on learning.

For instance, consider a department trying to decide whether to change admission criteria. The department has worked to be more inclusive, and their school recently raised the minimum GPA cutoff for probation. However, department faculty members are unsure if the difference between a C- and C is predictive of success, and if raising the criteria might exclude students who would likely be successful. Similarly, faculty trying to evaluate the quality of their programs and the impact of changes lack access to robust alumni data.

UNM should join national efforts—specifically, the National Survey of Student Engagement (<http://nsse.indiana.edu/>)—to track student progress and impacts of changes, and these data must be available within the proposed data dashboard.

References

1. Kotter, J.P., *Leading change: Why transformation efforts fail*. Harvard business review, 1995. **73**(2): p. 59-67.
2. Kotter, J.P. *8 steps to accelerate change in 2015* 2015 November 27, 2015]; Available from: <http://www.kotterinternational.com/research/landing-page/8-steps-to-accelerate-change-in-2015/>.
3. Kotter, J.P. and D.S. Cohen, *The heart of change: Real-life stories of how people change their organizations*. 2002, Boston, MA: Harvard Business Press.
4. Cobb, P., et al., *Design research with educational systems: Investigating and supporting improvements in the quality of mathematics teaching and learning at scale*. National Society for the Study of Education Yearbook, 2013. **112**(2).
5. Coburn, C.E., W.R. Penuel, and K.E. Geil, *Research-Practice Partnerships: A Strategy for Leveraging Research for Educational Improvement in School Districts*. 2013, New York, NY: William T. Grant Foundation.
6. Fishman, B.J., et al., *Design-based implementation research: An emerging model for transforming the relationship of research and practice*. National Society for the Study of Education Yearbook, 2013. **112**(2): p. 136-156.
7. Fishman, B.J., et al., *Design-Based Implementation Research: An Emerging Model for Transforming the Relationship of Research and Practice*. National Society for the Study of Education Yearbook (NSSE Yearbook), 2011. **112**(2).
8. Kirshner, B. and J.L. Polman, *Adaptation by design: A context-sensitive, dialogic approach to interventions*. National Society for the Study of Education Yearbook, 2013. **112**(2): p. 215-236.
9. Penuel, W.R., C.E. Coburn, and D.J. Gallagher, *Negotiating Problems of Practice in Research-Practice Design Partnerships*. National Society for the Study of Education Yearbook, 2013. **112**(2): p. 237-255.
10. Penuel, W.R. and B.J. Fishman, *Large-scale science education intervention research we can use*. Journal of Research in Science Teaching, 2012.
11. Russell, J.L., et al., *Theories and Research Methodologies for Design-Based Implementation Research: Examples From Four Cases*. 2013.
12. Sabelli, N. and C. Dede, *Empowering design based implementation research: The need for infrastructure*. National Society for the Study of Education Yearbook, 2013. **112**(2): p. 464-480.
13. Kuhl, P.K., F. Tsao, and H. Liu, *Foreign-language experience in infancy: Effects of short-term exposure and social interaction on phonetic learning*. Proceedings of the National Academy of Sciences, 2003. **100**(15): p. 9096.
14. Brown, A.L. and J.C. Campione, *Guided discovery in a community of learners*. Classroom lessons: Integrating cognitive theory and classroom practice, 1994: p. 229-270.
15. Bransford, J.D., A.L. Brown, and R.R. Cocking, eds. *How People Learn: Brain, Mind, Experience, and School. Expanded Edition*. 2000, National Academy Press: Washington, D.C.
16. Sawyer, R.K., ed. *The Cambridge handbook of the learning sciences*. 2014, Cambridge University Press: Cambridge.
17. Fischer, F., et al., *International Handbook of the Learning Sciences*. 2018: Routledge.

18. Oishi, M., V. Svihla, and V. Law, *Improved learning through collaborative, scenario-based quizzes in an undergraduate control theory course*. Proceedings of ASEE's 124 Annual Conference & Exposition, 2017.
19. Linn, M.C., *The knowledge integration perspective on learning and instruction*, in *The Cambridge handbook of the learning sciences*, K. Sawyer, Editor. 2006, Cambridge University Press: New York. p. 243-264.
20. Linn, M.C., P. Bell, and E.A. Davis, *Specific design principles: Elaborating the scaffolded knowledge integration framework*, in *Internet environments for science education*, M.C. Linn, E. Davis, and P. Bell, Editors. 2004, Lawrence Erlbaum Associates Publishers: Mahwah, NJ. p. 315-339.
21. Klein, S. and A. Harris, *A User's Guide to the Legacy Cycle*. Journal of Education and Human Development, 2007. **1**(1): p. 1-16.
22. Martin, T., et al., *The function of generating ideas in the Legacy Cycle*, in *Innovations 2007: World Innovations in Engineering Education and Research*, W. Aung, et al., Editors. 2007, International Network for Engineering Education and Research: Arlington, VA. p. 147-160.
23. Schwartz, D.L. and J.D. Bransford, *A Time for Telling*. Cognition and Instruction, 1998. **16**(4): p. 475-522.
24. Kapur, M., *Productive Failure*. Cognition and Instruction, 2008. **26**(3): p. 379-424.
25. Kapur, M., *The preparatory effects of problem solving versus problem posing on learning from instruction*. Learning and Instruction, 2015. **39**: p. 23-31.
26. Kapur, M., *Examining productive failure, productive success, unproductive failure, and unproductive success in learning*. Educational Psychologist, 2016. **51**(2): p. 289-299.
27. Kapur, M. and K. Bielaczyc, *Designing for Productive Failure*. Journal of the Learning Sciences, 2012. **21**(1): p. 45-83.
28. Hubka, C., E. Chi, and V. Svihla, *Peer review and reflection in engineering labs: Writing to learn and learning to write*, in *Proceedings of the ASEE 125th Annual Conference and Exhibition*. 2018, ASEE.
29. Underwood, J.S. *Effective Feedback: Guidelines for Improving Performance*. in *ICLS*. 2008. Utrecht, Netherlands.
30. Underwood, J.S. and A.P. Tregidgo, *Improving Student Writing Through Effective Feedback: Best Practices and Recommendations*. Journal of Teaching Writing, 2010. **22**(2): p. 73-98.
31. Cepeda, N.J., et al., *Optimizing distributed practice: theoretical analysis and practical implications*. Exp Psychol, 2009. **56**(4): p. 236-46.
32. Rohrer, D., *Student Instruction Should Be Distributed Over Long Time Periods*. Educational Psychology Review, 2015. **27**(4): p. 635-643.
33. Delaney, P.F., P.P.J.L. Verhoeijen, and A. Spigel, *Spacing and Testing Effects: A Deeply Critical, Lengthy, and At Times Discursive Review of the Literature*. Psychology of Learning and Motivation, 2010. **53**: p. 63-147.
34. Kornell, N., et al., *Spacing as the Friend of Both Memory and Induction in Young and Older Adults*. Psychology and Aging, 2010. **25**(2): p. 498-503.
35. Pashler, H., D. Rohrer, and N.J. Cepeda, *Temporal spacing and learning*. Observer, 2006. **19**(3).
36. Hand, V. and M. Gresalfi, *The joint accomplishment of identity*. Educational psychologist, 2015. **50**(3): p. 190-203.
37. Holland, D., et al., *Identity and agency in cultural worlds*. 1998, Cambridge, MA: Harvard Univ Press.
38. Wortham, S., *Learning identity*. 2006, New York: Cambridge University Press. 305.
39. Stevens, R., et al., *Becoming an engineer: Toward a three dimensional view of engineering learning*. Journal of Engineering Education, 2008. **97**(3): p. 355-368.
40. Gomez, J.R. and V. Svihla, *Rurality as an asset for inclusive teaching in chemical engineering*. Chemical Engineering Education, 2018.
41. Gomez, J.R. and V. Svihla, *Supporting Diversity in Teams Through Asset Mapping*, in *Proceedings of the ASEE 125th Annual Conference and Exhibition*. 2018, ASEE.
42. Svihla, V., et al., *Mapping Assets of Diverse Groups for Chemical Engineering Design Problem Framing Ability*. Proceedings of ASEE's 123 Annual Conference & Exposition, 2016: p. 1-25.
43. Paris, D. and H.S. Alim, *What are we seeking to sustain through culturally sustaining pedagogy? A loving critique forward*. Harvard Educational Review, 2014. **84**(1): p. 85-100.
44. Moll, L.C., et al., *Funds of Knowledge for Teaching: Using a Qualitative Approach to Connect Homes and Classrooms*. Theory into Practice, 1992. **31**(2): p. 132-141.

45. Wilson-Lopez, A., et al., *Latina/o Adolescents' Funds of Knowledge Related to Engineering*. Journal of Engineering Education, 2016. **105**(2): p. 278-311.
46. Brayboy, B.M.J. and A.E. Castagno, *Self-determination through self-education: Culturally responsive schooling for Indigenous students in the USA*. Teaching Education, 2009. **20**(1): p. 31-53.
47. Castagno, A.E. and B.M.J. Brayboy, *Culturally Responsive Schooling for Indigenous Youth: A Review of the Literature*. Review of Educational Research, 2008. **78**(4): p. 941-993.
48. Cazden, C.B. and E.L. Leggett, *Culturally Responsive Education: A Response to LAU Remedies II*. 1976.
49. Gay, G., *Culturally responsive teaching: Theory, research, and practice*. 2010: Teachers College Press.
50. Lee, C.D., *Toward a framework for culturally responsive design in multimedia computer environments: Cultural modeling as a case*. Mind, Culture, and Activity, 2003. **10**(1): p. 42-61.
51. Siwatu, K.O., *Preservice teachers' culturally responsive teaching self-efficacy-forming experiences: A mixed methods study*. The Journal of Educational Research, 2011. **104**(5): p. 360-369.
52. Warren, C.A., *The Utility of Empathy for White Female Teachers' Culturally Responsive Interactions with Black Male Students*. Interdisciplinary Journal of Teaching and Learning, 2013. **3**(3): p. 175-200.
53. Warren, C.A., *Empathy, Teacher Dispositions, and Preparation for Culturally Responsive Pedagogy*. Journal of Teacher Education, 2017: p. 0022487117712487.
54. Aronson, B. and J. Laughter, *The theory and practice of culturally relevant education: A synthesis of research across content areas*. Review of Educational Research, 2016. **86**(1): p. 163-206.
55. Preston, D., *Untold Barriers for Black Students in Higher Education: Placing Race at the Center of the Developmental Education*. Atlanta, GA: Southern Education Foundation, 2017.
56. Geier, R., et al., *Standardized test outcomes for students engaged in inquiry-based science curricula in the context of urban reform*. Journal of Research in Science Teaching, 2008. **45**(8): p. 922-939.
57. Cervantes, B., L. Hemmer, and K. Kouzekanani, *The Impact of Project-Based Learning on Minority Student Achievement: Implications for School Redesign*. Education Leadership Review of Doctoral Research, 2015. **2**(2): p. 50-66.
58. Edmunds, J., et al., *The Relationship Between Project-Based Learning and Rigor in STEM-Focused High Schools*. Interdisciplinary Journal of Problem-Based Learning, 2017. **11**(1): p. 3.
59. Erdogan, N., et al., *Viewing How STEM Project-Based Learning Influences Students' Science Achievement through the Implementation Lens: A Latent Growth Modeling*. Eurasia Journal of Mathematics, Science & Technology Education, 2016. **12**(8): p. 2139-2154.
60. Halvorsen, A.-L., et al., *Narrowing the achievement gap in second-grade social studies and content area literacy: The promise of a project-based approach*. Theory & Research in Social Education, 2012. **40**(3): p. 198-229.
61. Han, S., R. Capraro, and M.M. Capraro, *How science, technology, engineering, and mathematics (STEM) project-based learning (PBL) affects high, middle, and low achievers differently: The impact of student factors on achievement*. International Journal of Science and Mathematics Education, 2014: p. 1-25.
62. Harris, C.J., et al., *Impact of project-based curriculum materials on student learning in science: Results of a randomized controlled trial*. Journal of Research in Science Teaching, 2015. **52**(10): p. 1362-1385.
63. Hernández-Ramos, P. and S. De La Paz, *Learning history in middle school by designing multimedia in a project-based learning experience*. Journal of Research on Computing in Education, 2009. **42**(2): p. 151.
64. Mioduser, D. and N. Betzer, *The contribution of Project-based-learning to high-achievers' acquisition of technological knowledge and skills*. International Journal of technology and design education, 2008. **18**(1): p. 59-77.
65. Summers, E.J. and G. Dickinson, *A Longitudinal Investigation of Project-based Instruction and Student Achievement in High School Social Studies*. Interdisciplinary Journal of Problem-based Learning, 2012. **6**(1): p. 6.
66. National Academies of Sciences, E. and Medicine, *The Integration of the Humanities and Arts with Sciences, Engineering, and Medicine in Higher Education: Branches from the Same Tree*. 2018: National Academies Press.
67. Brassler, M. and J. Dettmers, *How to Enhance Interdisciplinary Competence—Interdisciplinary Problem-Based Learning versus Interdisciplinary Project-Based Learning*. Interdisciplinary Journal of Problem-Based Learning, 2017. **11**(2): p. 12.

68. Imafuku, R., et al., *Students' experiences in interdisciplinary problem-based learning: A discourse analysis of group interaction*. *Interdisciplinary Journal of Problem-Based Learning*, 2014. **8**(2): p. 1.
69. Ghnassia, J.D. and M.B. Seabury, *Interdisciplinarity and the public sphere*. *The Journal of General Education*, 2002. **51**(3): p. 153-172.
70. Sannino, A., Y. Engeström, and M. Lemos, *Formative interventions for expansive learning and transformative agency*. *Journal of the Learning Sciences*, 2016. **25**(4): p. 599-633.
71. Barton, A.C. and E. Tan, *We Be Burnin'! Agency, Identity, and Science Learning*. *Journal of the Learning Sciences*, 2010. **19**(2): p. 187-229.
72. Damşa, C.I., et al., *Shared Epistemic Agency: An Empirical Study of an Emergent Construct*. *Journal of the Learning Sciences*, 2010. **19**(2): p. 143-186.
73. Hanauer, D.I. and E.L. Dolan, *The project ownership survey: measuring differences in scientific inquiry experiences*. *CBE-Life Sciences Education*, 2014. **13**(1): p. 149-158.
74. Konopasky, A.W. and K.M. Sheridan, *Towards a Diagnostic Toolkit for the Language of Agency*. *Mind, Culture, and Activity*, 2016: p. 1-16.
75. Stefanou, C.R., et al., *Supporting autonomy in the classroom: Ways teachers encourage student decision making and ownership*. *Educational Psychologist*, 2004. **39**(2): p. 97-110.
76. Svihla, V. and L. Kittinger, *Agentic Trajectories: Development and Learning in a Project-Based High School for Marginalized Students*, in *Transforming Learning, Empowering Learners*, C.-K. Looi, et al., Editors. 2016, International Society of the Learning Sciences.
77. Wertsch, J.V. and L.J. Rupert, *The authority of cultural tools in a sociocultural approach to mediated agency*. *Cognition and Instruction*, 1993. **11**(3): p. 227-239.
78. Wertsch, J.V., P. Tulviste, and F. Hagstrom, *A sociocultural approach to agency*. *Contexts for learning: Sociocultural dynamics in children's development*, 1993: p. 336-356.
79. Kurzweil, M. and D.D. Wu, *Building a Path to Student Success at Georgia State University*. Ithaca S+ R, April, 2015. **23**.
80. Hodge, D.C., et al., *Institutionalizing large scale curricular change: The Top 25 project at Miami University*. *Change: The Magazine of Higher Learning*, 2011. **43**(5): p. 28-35.
81. Stonewater, J., et al., *Engaging communities of practice to increase student engagement in large-enrollment courses*. *Learning Communities Journal*, 2014. **6**: p. 93-108.
82. Hallman, S.K., et al., *Engaged learning at Michigan : Understanding the impact of the Transforming Learning for a Third Century initiative*. . 2018, Ann Arbor, MI. http://engaged.umich.edu/wp-content/uploads/2018/06/TLTC-Report-2018_FINAL.pdf.
83. Dolan, E.L., et al., *Improving undergraduate STEM education at research universities: A collection of case studies*. 2016, Tucson, AZ: Published by Research Corporation for Science Advancement, <https://stemedhub.org/groups/aaui/File:/uploads/RCSA2016.pdf>.
84. Wieman, C., *Improving how universities teach science: lessons from the science education initiative*. 2017: Harvard University Press.
85. Elrod, S. and A. Kezar, *Increasing Student Success in STEM: Summary of A Guide to Systemic Institutional Change*. *Change: The Magazine of Higher Learning*, 2017. **49**(4): p. 26-34.
86. Kezar, A. and E. Holcombe, *Creating a Unified Community of Support: Increasing Success for Underrepresented Students in STEM: A Final Report on the CSU STEM Collaboratives Project*. 2017.
87. Freeman, S., et al., *Active learning increases student performance in science, engineering, and mathematics*. *Proceedings of the National Academy of Sciences*, 2014: p. 201319030.
88. Haak, D.C., et al., *Increased structure and active learning reduce the achievement gap in introductory biology*. *Science*, 2011. **332**(6034): p. 1213-1216.
89. Eddy, S.L. and K.A. Hogan, *Getting under the hood: how and for whom does increasing course structure work?* *CBE—Life Sciences Education*, 2014. **13**(3): p. 453-468.
90. Stephens, N.M., A.G. Dittmann, and S.S. Townsend, *Social class and models of competence: How gateway institutions disadvantage working-class Americans and how to intervene*. *Handbook of competence and motivation: Theory and application*, 2017: p. 512-528.
91. Stephens, N.M., et al., *Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students*. *Journal of personality and social psychology*, 2012. **102**(6): p. 1178.

92. Ibarra, R.A., *Beyond affirmative action: Reframing the context of higher education*. 2001: University of Wisconsin Pres.
93. Chávez, A.F. and S.D. Longerbeam, *Teaching across cultural strengths: A guide to balancing integrated and individuated cultural frameworks in college teaching*. 2016: Stylus Publishing, LLC.
94. Na, J., et al., *Cultural differences are not always reducible to individual differences*. Proceedings of the National Academy of Sciences, 2010: p. 201001911.
95. Miyamoto, Y., *Culture and analytic versus holistic cognition: Toward multilevel analyses of cultural influences*, in *Advances in Experimental Social Psychology*. 2013, Elsevier. p. 131-188.
96. Kozhevnikov, M., C. Evans, and S.M. Kosslyn, *Cognitive style as environmentally sensitive individual differences in cognition: A modern synthesis and applications in education, business, and management*. Psychological Science in the Public Interest, 2014. **15**(1): p. 3-33.
97. Coffield, F., et al., *Learning styles and pedagogy in post-16 learning: A systematic and critical review*. 2004.
98. Coffield, F., et al., *Should we be using learning styles?: What research has to say to practice*. 2004.
99. Curry, L., *A Critique of the Research on Learning Styles*. 1990: ASCD.
100. Dembo, M. and K. Howard, *Advice about the use of learning styles: A major myth in education*. Journal of College Reading and Learning, 2007. **37**: p. 2.
101. Geake, J., *Neuromythologies in education*. Educational Research, 2008. **50**(2): p. 123-133.
102. Hall, E., *The tenacity of learning styles: a response to Lodge, Hansen, and Cottrell*. Learning: Research and Practice, 2016. **2**(1): p. 18-26.
103. Husmann, P.R. and V.D. O'Loughlin, *Another nail in the coffin for learning styles? Disparities among undergraduate anatomy students' study strategies, class performance, and reported VARK learning styles*. Anatomical sciences education, 2018.
104. Kane, H. and C. Boan, *A review and critique of multicultural learning styles*. Comprehensive handbook of multicultural school psychology, 2005: p. 425-456.
105. Kirschner, P.A. and J.J. van Merriënboer, *Do Learners Really Know Best? Urban Legends in Education*. Educational Psychologist, 2013. **48**(3): p. 169-183.
106. Knoll, A.R., et al., *Learning style, judgements of learning, and learning of verbal and visual information*. British Journal of Psychology, 2017. **108**(3): p. 544-563.
107. Landrum, T.J. and K.A. McDuffie, *Learning styles in the age of differentiated instruction*. Exceptionality, 2010. **18**(1): p. 6-17.
108. Lodge, J.M., L. Hansen, and D. Cottrell, *Modality preference and learning style theories: rethinking the role of sensory modality in learning*. Learning: Research and Practice, 2015: p. 1-14.
109. May, C., *The Problem with "Learning Styles"*, in *Scientific American*. 2018.
110. Pashler, H., et al., *Learning Styles*. Psychological Science in the Public Interest, 2008. **9**(3): p. 105.
111. Reynolds, M., *Learning Styles: A Critique*. Management Learning, 1997. **28**(2): p. 115.
112. Riener, C. and D. Willingham, *The myth of learning styles*. Change: The Magazine of Higher Learning, 2010. **42**(5): p. 32-35.
113. Stahl, S., *Different Strokes for Different Folks? A Critique of Learning Styles*. American Educator, 1999. **23**(3): p. 27-31.
114. Willingham, D.T., E.M. Hughes, and D.G. Dobolyi, *The scientific status of learning styles theories*. Teaching of Psychology, 2015. **42**(3): p. 266-271.
115. McBrien, J.L., R. Cheng, and P. Jones, *Virtual spaces: Employing a synchronous online classroom to facilitate student engagement in online learning*. The International Review of Research in Open and Distributed Learning, 2009. **10**(3).
116. Mabrito, M., *A study of synchronous versus asynchronous collaboration in an online business writing class*. The American Journal of Distance Education, 2006. **20**(2): p. 93-107.
117. Martin, F., M.A. Parker, and D.F. Deale, *Examining interactivity in synchronous virtual classrooms*. The International Review of Research in Open and Distributed Learning, 2012. **13**(3): p. 228-261.
118. Meyer, K.A., *Student engagement in online learning: What works and why*. ASHE Higher Education Report, 2014. **40**(6): p. 1-114.
119. Garrison, D.R., T. Anderson, and W. Archer, *The first decade of the community of inquiry framework: A retrospective*. The internet and higher education, 2010. **13**(1-2): p. 5-9.

120. Tornsaufer, C., *Comparing Student Retention in On-Campus, Synchronous, and Asynchronous Online Credit Courses at California Community Colleges*. 2014, Education.

Appendix E
Redesigning the University Task Force 2 Final Report
Robert G. DelCampo, Ph.D., Chair

On March 8, 2018 I was charged with chairing Task Force #2 for the University of New Mexico Redesigning the University initiative. At that time, the group received the following charge:

Task Force 2: Potential new populations and markets of students/learners and innovative programs to meet their needs

In the future, UNM will likely see fewer “traditional” students and more “non-traditional” students. This will include increasing numbers of part-time students, students seeking additional education to enhance their occupational opportunities, students seeking specific types of educational certificates or credentials, students seeking advanced degrees on a part-time basis, and others. Task Force 2 should consider a variety of responses to these new populations, including but not limited to: expanding lower-cost, on-line degree programs, distance education programs, potential academic programs—such as the Navajo Language program—that are unique or particularly relevant to New Mexico or the Southwest, flexible semesters, expanding and formalizing the use of retirees and community experts as instructors, 4-day instead of 5-day course schedules, Veteran’s initiatives, specific programs for National Laboratory employees, and specific workforce development programs that reflect the strengths of a research university. The purpose of this task force is to identify potentially new populations or markets of students and to propose new curricula, unique and online degree programs, and other educational opportunities/programs to meet their needs.

Members of the task force were assigned at that time and included:

Rob DelCampo, Innovation Academy/University College/Anderson (Faculty)
Nasha Torrez, Dean of Students (Staff)
Alonzo Maestas, Veterans Resource Center (Staff)
Mahmoud Taha, School of Engineering (Faculty)
Anna Nogar, Department of Spanish & Portuguese (Faculty)
Matt Hulett, Enrollment Management (Staff)
Patrick Valdez, Taos Campus (Staff)
Pamela Pyle, Faculty Senate/Department of Music (Faculty)
John Benavidez, Anderson School of Management (Faculty)
Trajuan Briggs, Academic Advisement (Staff)

The task force met several times, commencing in early April and generated a number of proposals to meet the charge. The presentation of these concepts is two-fold. First, we present a more detailed set of recommendations with significant detail for implementation. Second, a more general list of the entire “brainstorm” created by the group that is inclusive of all ideas presented (with no order to their priority nor further vetting). While we ask that immediate opportunities be prioritized (and have provided additional detail to make this feasible), we have

simply provided the longer list for the purpose of representing all of the ideas presented by the group—feasible or not.

Populations to Reach

In identifying opportunities, we focused on a number of “new” student populations, building specific proposals to meet the needs of a variety of groups. The groups we identified and build proposals around are:

Existing Students (ES)- “continuous recruitment” of existing students seems necessary in the changing environment of higher education; as our students change (even during their time at UNM) we must continue to put forth our value proposition and identify opportunities for student success.

Veterans (V)-as identified by President Stokes, Veterans-as-students are a priority moving forward; with a significant number of active duty and retired military in the State of New Mexico, and given their GI Bill availability, meeting the needs of these students is paramount.

Branch Campus Students (BC)-Branch students are commonly identified as targets for 4-year degrees, however there are significant challenges given their often geographic limitations.

NM High School Graduates attending other institutions (OI)-students who do not consider UNM for 4-year attendance, but are potential transfers, summer school or graduate school students given their family residence in New Mexico

Non-Traditional Students/Returning Students (NT)-workforce veterans in search of additional education

Recent Graduates (RG)-students who have recently completed an undergraduate degree (within the last 3-5 years)

Near Term Recommendations (abbreviations of populations to reach are in parentheses)

1. Increasing the offering of “non-pattern” courses including summer intersession, winter intersession and 4- or 8-week offerings during the regular Fall/Spring terms (ES, V, BC, NT)

In past semesters, UNM West found a significant source of revenue by offering winter intersession courses, however, they have since discontinued this practice. In evaluating the UNM schedule of classes it appears that most intersession courses are filled with 75% of capacity or greater, however, fewer than 15 were offered this entire academic year. Historical data indicates that intersession courses (particularly those without pre-requisites, 300+ level and core courses) offered at UNM West had similar fill rates. Additionally, 8- or 4-week classes would have similar attraction for returning or “stop out” students who are attempting to re-integrate into the UNM system. Our research shows

that there are fewer than 100 unique sections offered as 2nd 8-week courses, with a majority restricted to MOPs program students. As universities such as University of Florida evaluate options that include Summer/Fall as full-time enrollment, we should evaluate the options of students stacking courses in an 8-week and/or 16-week schedule (mixing both as summer term has with 4- and 8-week options for years). In the past, and at other universities, short-term courses carry additional fees that could offset the costs of instruction and may be attractive to visitors from outside the Albuquerque-metropolitan area looking to spend an extended period of time on campus.

2. Evaluating and offering UNM/New Mexico core as a “Managed Online Program” (MOP) as a complement/pathway to existing MOPs (ES, V, BC, OI, NT)

Managed Online Programs (MOPs) now comprise the majority of our online degree completion programs. Programs in Native American Studies, Business and Psychology are projected to have regional reach and significant interest from geographically constrained students completing 2-year programs at UNM branch campuses, however, no MOPs program provides for completion of the UNM’s core curriculum. While students do have the opportunity to complete core courses online, there is no MOPs “carousel” option (where courses are available every 8-weeks) to complete what amounts to essentially the first 2-years of UNM curriculum. We endorse either the creation of a limited, yet complete, set of core offerings that could pair with MOPs and serve students interested in any of the existing (or future) Managed Online Programs. The creation of even 1 carousel of MOPs core could feed all of the existing programs and increase regional and out-of-state enrollment.

Additional barriers to students currently completing UNM core online include a differential tuition and fee structure. While MOPs students essentially pay in-state tuition to complete their degrees, “basic” online students potentially pay out-of-state tuition and an online course fee for introductory courses. This model is counter to UNM’s existing tuition structure where upper division courses are billed at a premium rate and lower division courses are billed at rates meant to stay in a reasonable level of competition with community colleges around the state.

3. Expanding existing pipeline/bridge to UNM program/transition communities (UNIV 101) to serve students from the Metro-Albuquerque region who may or may not plan to attend UNM--online opportunity for statewide reach (OI)

UNIV 101, or UNM’s “Transition Communities” are popular with Freshman Students attending UNM in their first semester. Approximately 14 sections are offered (and filled) each Fall. Some sections focus on a specific major (i.e., Music) while others are required for student athletes, yet others are filled with a mixture of students looking for a gateway to more in-depth understanding of major choices, higher education in general or resources they might tap into throughout their college career. Regularly taught by members of our academic advising staff

(at a rate of \$1,000-\$3,000 per class), students report the opportunity to ease their way into the university as transformational and impactful on their future study.

We propose growth in this program and instruction in the late summer to create a true “bridge” to higher education. However, the expansion should recruit students from the Albuquerque metro-area who will matriculate at **ANY** higher education institution (community college, out-of-state university, other New Mexico institutions). The theory behind the program would be to not only provide transition support before they “leave home” but to also create a relationship with UNM---either as a later transfer student, summer school student, potentially as a graduate student or simply as a future member of the Albuquerque/New Mexico community to have a greater understanding of the quality of the institution. New revenue may be modest; however, this would provide additional opportunities for advisement staff to earn income and provide a great service to the state. Future developments could include the creation of UNIV 499 as a “Bridge to Graduate Education” for students to transition to future educational endeavors either at UNM or elsewhere. Online offering is also a possibility.

4. Offering Interdisciplinary Graduate Degrees (MA and/or PhD) (ES, RG, NT, V)

Advisors report increasing numbers of students (both returning and continuing) who seek graduate degrees that are interdisciplinary in nature. While the idea of “breaking down siloes” across UNM departments/schools has been discussed for years, utilizing excess capacity in existing graduate courses/seminars could easily create opportunities for students who are interested in transdisciplinary and interdisciplinary study. Most Universities in our region provide these opportunities to study a program that might not be explicitly offered at UNM. We propose that these programs be developed, with particular focus on pre-articulation as 3/2 or 4+1 programs to retain our best students. Some exemplar programs include:

MA:

Oregon State: <https://gradschool.oregonstate.edu/master-arts-interdisciplinary-studies-mais/suggested-mais-tracks>

Johns Hopkins: <http://advanced.jhu.edu/academics/graduate-degree-programs/liberal-arts/>

Winthrop: <https://www.winthrop.edu/mla/>

Arizona State: <https://newcollege.asu.edu/interdisciplinary-studies-ma>

PhD:

Washington State: <https://gradschool.wsu.edu/individual-interdisciplinary-doctoral-degree/>

Tufts: <https://asegrad.tufts.edu/academics/explore-graduate-programs/interdisciplinary-doctorate>

Montana State:

<http://www.montana.edu/gradschool/individualinterdisciplinaryphd/index.html>

Washington University St. Louis:

<https://ucollege.wustl.edu/programs/graduate/doctor-liberal-arts>

5. Creative tuition payment opportunities (ES, NT, RG)

a. Pre-Paid tuition/fees plan

UNM does not offer a pre-paid tuition plan. We propose that UNM offer the opportunity for students and families to pay for 4-years of tuition up front with the added advantage that they will not be subject to any tuition increase (i.e., pay for 4-years at this year's rate and lock in tuition). This practice is commonplace at a number of other Universities and has been in place since the early 1980s. While a vast majority of UNM attendees are not affluent, many students have 529 plans or other financing options they might investigate to "lock in their rate" ahead of time. It is also believed that this will improve motivation to graduate within the 4-year period. Possibility to explore "pre-paid fees only" model for those expecting to be on scholarship.

b. Education and/or Music Education 1-year MA with tuition paid post-graduation (when existing educators get a pay raise for the additional education)

We propose the investigation of alternative and innovative tuition payment plans. Commonly, returning students do so in order to improve their rate of pay; chief among these returnees are educators. All too often, tuition is prohibitive due to their income. When educators move from a Level 1 to a Level 2 teacher (dependent on a number of factors, including increased education) they receive significant increases in pay (upward of \$10,000). Our proposal for these students would be to "back load" the payment of tuition (or 0% interest loan) in order to make the completion of a graduate degree with a promised pay increase more attainable and attractive. Students would have to demonstrate the willingness (or requirement/promise) from their employer to increase pay upon completion of their degree and could opt to pay tuition out of these increased earnings with no penalty. While our primary target market would be educators, it seems other disciplines might have similar opportunity.

6. Creation of a Post-Bachelor Certificate (15 credit re-tooling option for those changing careers) (RG, NT, V)

Currently, a small percentage of students complete any type of future work-related experience while completing their degrees. While we advocate to continue investigating opportunities for internships or other experiential opportunities, we propose a new set of 15-credit “Post-Bachelor” Certificates for students who discover: A) they are not interested in their field of study’s work opportunities, B) would like to “re-tool” and shift careers or C) are dissatisfied with the labor market in their discipline. A limited number of pilot certificates would be created by a group of interdisciplinary faculty members, staff of career services and key employers to identify a series of 5 courses that would provide the basis for employment in high-growth or high-need jobs. Utilizing existing courses, costs would be minimal. An alternative option could be to allow a “create your own” Post-Bachelor Certificate with some input from industry professionals and Career Services (as is current practice with the Bachelor of Arts in Liberal Arts). The program would be housed in University College; tuition rates could be reduced for returning graduates if deemed necessary.

7. Expansion of Credit for Prior Learning, using Veterans as a test case (V)

The University of New Mexico currently offers a limited amount of credit for military training (UNM follows the ACE guide to best practices: <http://www.acenet.edu/higher-education/topics/Pages/Credit-for-Prior-Learning.aspx>). In our efforts to become a “Veteran Friendly” Campus, we propose expanding the current prior learning credit options beyond the current “elective credit” option. The following schools have robust credit for prior learning programs and could be used as a guide:

Kansas State: <http://www.k-state.edu/prior-learning/>

New School: <https://www.newschool.edu/public-engagement/ba-bs-liberal-arts-prior-learning/>

Central Michigan: <https://www.cmich.edu/global/prior-learning/Pages/default.aspx>

Additional support for student veterans could include additional advising capacity and other relevant resources. An analysis of the “Top Schools for Veterans” identifies prior-learning credit as one of the top drivers of enrollment; determining if military training could translate to either generic upper-division credit or as specific course offerings would speed the time to degree and therein interest in UNM tremendously.

The seven recommendations above comprise the primary layer of our task force recommendations for this exercise. Our selection of these options was built upon task force consensus, speed of implementation and potential for transformative change at UNM. The

members of our group enjoyed the exercise fully and are all willing to participate in further discussions or committee work to implement the above suggestions.

Addendum

Larger brainstorm list—each of these can be expanded upon, simply listed here for the sake of being complete.

- Campus Culture
 - adaptability for non-traditional students
 - responsivity to existing students/anticipated students
- CNM transfers
 - Gen-Ed potential drop off
- “Citizens of The World” Program—Interdisciplinary Music-oriented Grad program
- Rural Recruiting
 - Pipeline/Retention
 - utilization of legislators in communities
- Recruiting TO 2-year programs
- Non-High School Grads through equivalency?
- Corporate Partnerships alongside professional development/training (moving to for-credit pipeline)
- Identifying Signature Programs
 - What is unique, inimitable, NM-centric
- Paying special attention to Branch students, needs, pipeline
- Expand Nursing BSN capacity so more non-NM students can enroll.
- Bring to pre-eminence and expand capacity of Athletic Training and Exercise Science in either College of Education or HSC/Physical Therapy
- Complete the build-out of Population Health and structure curriculum so that it is both a valued program and serves as a complimentary option for students unable to access Nursing or other limited access health science programs
- Review credit awarding criteria with intent to increase credit toward degree requirements (not elective credit) awarded for Joint Service Credit
- Utilize Experience/Service Learning Credit to meet degree requirements, which will make it easier for non-traditional students to be eligible for admission and shorten time to degree.
- Create additional 3/2 degree programs that have immediate economic return for student - Education masters for example. Tie this to Aim to Achieve (which covers cost of 8th semester of bachelor’s degree) as incentive.
- Purchase or build self-service degree audit tool for use by prospective students
- Increase UCAM marketing budget to be competitive with regional competitors
- Place emphasis on non-resident student recruitment
- offer more non-degree “certificate” options
- disseminate existing programs more broadly—sharing of information, some new strategy
- smooth dual enrollment process (re-apply every semester now)
- Bring back 4-year degrees to branches

- explore branch programming in addition to what is currently done with CNM (90% of transfers are from CNM)
- Synchronous Grad Classes at Branches
- 1-yr programs/certificate programs
- stackable 1-year certificates
- branch as a destination institution
- accelerated offerings (meet demand from non-traditional students)
- 4-day class schedule
- launch evaluation of work force demand/degree demand; strategically grow student capacity
 - Athletic Training/Gerontology/Exercise Science/Nursing
- tuition/financial incentive to major in areas with excess demand
- Meta-Majors (3 minors make a major)
- pairing majors of interest with job market demand minors
- reverse engineering of job market (relevant skills for employers provided by each major)
- augment University marketing strategies

Appendix F
REDESIGNING THE UNIVERSITY OF NEW MEXICO,
TASK FORCE 3
Phase I Report

I. CHARGE

As part of the larger “Redesigning the University” initiative launched at the University of New Mexico (UNM) in March 2018, six task forces were created. Each task force was asked to “rely on its collective expertise to identify external forces facing UNM and to generate recommendations intended to position UNM for financially stable academic success for the next 25 years.” The specific title and charge for Task Force 3 was:

“New external funding and internal budget scenarios/models. New potential partners. Retirement options

New Mexico’s economic problems have resulted in severe cutbacks in UNM’s level of state funding over the past several years. Although there have been recent signs of improvement in the state’s financial picture, the future of higher education funding is uncertain. Critical to future planning for the University are accurate analyses and predictions of the state’s economic situation and available funding for higher education. In addition, UNM’s internal budgeting processes should be examined to determine whether they are best suited to UNM’s mission, especially in a changing funding environment. In this regard, all aspects of UNM’s budget should be considered, including academic affairs, athletics, physical plant, etc. The purpose of this task force is to analyze the state’s economic situation, identify likely future funding scenarios, identify alternative funding sources and potential new funding partners, review and, if warranted, propose alternative internal budgeting processes (e.g., more distributed financial governance across campus) to facilitate UNM’s research and teaching mission.”

After listing the Task Force 3 members in section II, this report proceeds by briefly laying out some of the background in Section III for external financial challenges for new budget models. After that a list of specific ideas and preliminary recommendations, as provided by Task Force 3 members, follows in Section IV. While the Task Force included a representative from the UNM Health Sciences Center, **the focus is on the UNM Main Campus.**

Finally, **this is not a consensus document.** The ideas and recommendations were generated by various committee members, as refined by the group discussions. Thus, Section IV presents a range of ideas and preliminary recommendations, of various shapes and sizes, that might be taken up for expected further review in any future phases of the *Redesigning Initiative*. We

hope these ideas and preliminary recommendations generate additional possibilities, and motivate further campus discussion, investigation and vetting.

II. PARTICIPANTS

Robert Berrens (Task Force 3 Chair) – Professor and Chair, Economics
Norma Allen – Director, Budget Operations, Office of Planning, Budget and Analysis
Shawn Berman – Associate Dean, Professor, Anderson School of Management
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III. BACKGROUND/CONTEXT

1. Outlook for State Economy, Budget Appropriations and Demographics

Since the Great Recession, growth of New Mexico's economy has lagged well behind the rest of the US. As of April 2018, employment in the state remains 2% below the pre-recession level; by comparison US employment is more than 6% above the previous high. This is a new situation and expectations from the pre-recessionary period may not apply. From 1990 until the onset of the recession in 2007, employment in the state grew at nearly twice the national rate.

Because of the weakness of the economy, revenues to the State government, corrected for inflation, were nearly 14% lower in FY18 than before the recession, in FY08. With oil & gas trending up as of summer 2018, the situation moving forward is slightly better. The state's Consensus Revenue Forecast Group (comprised of representatives of the LFC, TRD, DFA and DOT) anticipates average annual revenue growth of 2.9% (or about 1% in real terms) through FY23.

Apart from expectations of very slow revenue growth, recent trends in budgetary appropriations do not favor higher education. From FY10 through FY19 budgeted appropriations, State appropriations to Higher Education have declined by 17.7%, or \$170.6 million (both in current dollars). Over the same period, Medicaid costs have increased by 38%, or \$265.9 million (current dollars). For at least the next three years, the costs of Medicaid to the

State will continue to climb, as a share of the cost of Medicaid expansion (Obamacare) is shifted from the federal to State budgets.

For better or worse, the college-age population in New Mexico is expected to grow slowly, if at all, over the next twenty years. Between 2020 and 2040, the population aged 20-24 y/o will grow by just 0.2% per year; population of persons 25-29 y/o is expected to decline by an equal amount over the same period. More broadly, the working age population 20-64 y/o will grow at an average annual rate of 0.3% over the twenty years. Instead, the bulk of the population growth will be among seniors. Over the 20-year period, the population of persons 75 y/o and older will grow by 118,000, accounting for 55% of the total increase in the state's population.

There are three broad implications for higher education. First and most obviously, the demand for higher education among the in-state 'traditional' student population will be flat. Second, the slow growth of the millennial population may limit economic expansion in the state. Third, the aging of the population will likely require the State to allocate a greater share of spending to meet the needs of the elderly, drawing funds away from K-12 and higher education (and see Webber, 2018a). Below, we explore NM higher education background issues in greater detail.

2. Higher Education Background

Main campus operations at large public research universities have three traditional primary revenue streams: (i) state funding, often referred to as public subsidies; (ii) tuition and fees collected from charges to students; and (iii) external research funding (e.g., from federal and state grants and contracts). The combination of (i) and (ii) is often the primary support system of undergraduate education, and the traditional focal point of main campus budget models. However, research funding (iii) is: closely connected to graduate education; almost entirely generated by faculty in a competitive funding environment; and at UNM represents a roughly similarly-sized wedge of the revenue pie as (i) and (ii) for the Main Campus. There are, of course, other revenue sources that can be quite significant, such as endowment funds and external scholarships and grants (federal state and private). In NM, the state Legislative Lottery Scholarship (NMLSS) has been an important source of indirect state support or commitment to higher education, which has covered a large part of tuition for approximately 40% of UNM undergraduates since its inception in 1996. This is not a merit scholarship that is a form of internal price discounting at the university (and hence would not generate revenues); rather it is broadly available scholarship to NM students that becomes a direct source of revenue to in-state public universities and colleges, which partially covers tuition charges (i.e., it raises net tuition received while lowering the net price actually paid by students).

The relative shares of public subsidy to tuition revenues generated the traditional *low tuition-high public subsidy* external financial support system that was prevalent at many large public universities (AAAS, 2015; Archibald and Feldman, 2017). This further supported internal budget allocation models or rules often characterized by complicated cross subsidies (e.g., with lower

division students subsidizing upper division students, and some colleges subsidizing others) (Fethke and Policano, 2012; Massy 2016).

While there is year-to-year variation and differences across states, over the last several decades in the US, the low tuition, high public subsidy model has gradually been replaced by a *higher tuition, lower public subsidy, greater financial aid* model (see Webber, 2018a). Since tuition typically began as a much smaller slice of the revenue pie for public higher education institutions, then replacing or even partially replacing lost state funding, in real terms (constant dollars), required much larger *percentage* increases in tuition. Cost shifting onto students and large sustained annual tuition increases raise legitimate accountability concerns (e.g., to protect access, keep tuition affordable, and avoid “administrative bloat” or inefficiencies) (see LFC, 2017; Ketchen, 2018a and b). However, the general econometric evidence across the last several decades for US public higher education institutions is that, “spending increases have generally been far more effective per dollar than price cuts as a means of achieving postsecondary attainment” (Deming and Walters, 2017). The caveat is that improving student outcomes typically requires that spending increases be focused on instructional, academic support and student services expenditure categories (see Webber and Ehrenberg, 2010).

Like the national transition in public higher education over the last several decades, the cost-shifting onto students and their families has been ongoing in NM (and at UNM). However, its inception has perhaps been more recent, and the relative rate of change been much slower than in most states. In relative terms, NM state support for higher education (HE) remains relatively high (SHEEO, 2017), and this is especially so when the NM Legislative Lottery Scholarship (NMLSS) revenues are accounted for. However, that state support is distributed across 31 different institutions of higher education, in what is often described as an inefficient system (see discussion in LFC, 2017), although representing diverse points of access and important sources of economic impact to numerous distributed communities.

It is also an increasingly competitive HE market, with significant market entrants, many of which are unpacking different components of the traditional college bundle (Fethke and Policano, 2012; Archibald and Feldman, 2017). Against these competitive forces, UNM is being slowly but surely moved away from a *high public subsidy, low tuition* setting and into a *lower public subsidy, higher tuition dependency* setting. Thus, financial self-sufficiency in the future for UNM may require us to not only be more dependent on tuition and fees, but also paying close attention to the value propositions we offer (Massy, 2016), and our competitive positioning.

Further, many of the internal budget allocation rules we have relied on in the past were created under a high public subsidy setting and may need to be reconsidered or redesigned. These changing circumstances are being acknowledged, and it is recognized that we need to change our financial planning and alter our budget models or philosophies to accommodate them.

In fact, UNM main campus has been exploring alternative budget models (see Hanover Research, 2013) for more than a decade. The current (and historical) main campus UNM budget model can be described as an incremental base budgeting (IBB) model, which while highly

centralized does receive input from a broad Budget Leadership Team (BLT), albeit with a primary focus on Main Campus Academic Affairs. However, for example, full-blown, decentralized Responsibility Center Management (RCM) models have been developed and shadowed but may have been viewed as a step too far, with too many risks and representing a loss of central control. (Although an RCM variant has been successfully implemented in last half-decade at the UNM Health Science Center [HSC].) More centralized performance-based budgeting (PPB) models were examined, including a UNM variant referred to as responsibility-oriented management (ROM) that was partially implemented and never got off the ground as UNM Main Campus kept confronting a series of annual fiscal shortfalls. Other blended variants have also been discussed and considered by the BLT and its subcommittees, such as a “Tuition-Share” budget model proposal that was viewed by some as tied too closely to past historical cross subsidies, and not a significant departure from the historical IBB model. Perhaps, the take away point is that despite lots of discussion, moving to a significantly different budgeting model has been challenged by an ongoing series of fiscal deficits over the last decade that have required significant budget cuts without full tuition replacement (now approximately \$20 million to \$30 million in the annual budget for Main Campus Academic Affairs since 2008-2009, in real terms, depending on the price index chosen).

Looking forward and focusing on projections of the two primary revenue streams (public subsidy [i.e., the Instruction and General (I&G) allocation to Main Campus], and tuition), there is clear cause for concern.

First, there are a variety of reasons to believe that public subsidies to higher education in New Mexico will be either relatively flat in real terms or decreasing.

- As noted above, projections of overall growth for the NM state economy remain relatively low. The NM state budget, despite positive efforts to diversify the state economy, remains highly dependent on the boom-and-bust cycle of oil and gas tax revenues. Further, as the nondiscretionary components of the state budget grow in proportional terms (e.g., with expanded Medicaid, and growing state obligations to support), the discretionary component is under pressure to be reduced, especially if that component (e.g., higher education) is viewed as having its own ability to generate revenue (see AAAS, 2015; Webber 2018a).
- The public’s willingness to pay for subsidizing higher education may be in long-term decline as the bulk of the benefits to earning degrees are viewed as being captured by the individual (i.e., they are viewed as largely private benefits).
- Downward pressure on public subsidies to higher education also comes in the form of libertarian arguments that the bulk of returns to many higher education degrees are from signaling rather than human capital accumulation (see Caplan, 2018); Thus, in this view, rather than increasing public subsidies to higher education, which are argued to be a source of ever-rising tuition (akin to the “Bennett hypothesis”), this signaling effect could be delivered with much greater austerity (and lower public subsidy) in delivering educational outcomes. Elements of such philosophical arguments are seen in the debate

surrounding recent NM state legislation that de-coupled NM Legislative Lottery Scholarship amounts from the level of tuition at NM public universities and colleges, and in a recent state Legislative Finance Committee (LFC) report on costs drivers in higher education (LFC, 2017).

Second, as UNM Main Campus becomes more dependent on tuition and fees for financial self-sufficiency, there are also reasons to believe that tuition and fee revenues could be relatively flat or decreasing.

- Net out-migration in NM has been positive in recent years (a net loss), and overall population growth has been flat. The out-migration has been largest in working age adults, who take their human capital (and children) with them.
- State-wide efforts on streamlining the general education core requirements and ensuring course transferability across NM public HE institutions could be increasing the risk that UNM will lose in-state market share, especially for general education core classes when there are much cheaper alternatives to the UNM Main Campus. This risk is only enhanced by widely available online alternatives from the numerous NM public institutions.
- Higher education more generally, has become highly competitive, especially with the growth of for-profit sector in last 10-15 years (although slowing somewhat recently), and numerous institutions of all types offering online certificate and degree programs.

Taken together, there is considerable reason to believe that UNM Main Campus could confront a combination of internal and external challenges that will lead to a continuing series of budget deficits in the decade ahead, absent significant internal changes to address these challenges. Similar circumstances have been part of the essential impetus behind proposals for redesigning or “reengineering” large public universities (e.g., Massy, 2016), and creating new internal, sustainable budget models (EAB, 2014).

3. Challenges to Building a Sustainable Financial Model

So, what are the challenges to building a sustainable financial model? Especially for public research universities as large complex organizations? Here are what some scholars might list (e.g., see: AAAS, 2015; Archibald and Feldman, 2017; Bowen and McPherson, 2016; Fethke and Policano, 2012; Massy, 2016):

- We use complicated production functions or methods that require various types of high skill labor types (that are often relatively autonomous).
- For this high skill labor, the expectation is that the Higher Education Price Index (HEPI) will grow at a rate higher than inflation in the larger economy (e.g., as referenced by the Consumer Price Index [CPI]). First, productivity growth in the larger economy driven by

the high skill labor we compete for pushes up those wages at rates likely to grow faster than the standard consumer price index (known as Baumol cost effects [see Martin and Hill, 2014]). Second, in many STEM activities and the larger academic research enterprise, meeting a kind of “standard of care” (Archibald and Feldman, 2017) requires keeping pace with technological change.

- We produce multiple outputs, many of them jointly produced so it is often difficult to sort out costs. I.e., many of the same human capital inputs that produce research outputs, which are closely tied to graduate education, also produce undergraduate teaching outputs. The implication is that narrowly focused, activity-based costing approaches (e.g., see Massy, 2016) that might work well in some more homogenous settings, e.g., teaching-focused institutions, may not be as easily applied in a large public research university.
- As public entities, many of the goals we pursue, or social benefits we provide, are hard to measure/quantify.
- Our traditional Main Campus budgets are full of cross subsidies, that are often not well understood or transparent either internally or externally (see Fethke and Policano, 2012). Further, from an accountability perspective and as dependence on tuition becomes more prominent, historical allocation rules may not map well into changing student demands (e.g., for academic support and student services).
- We anchor a local community, but operate in dynamic, national markets, where we need to quality differentiate ourselves from a mix of private and public competitors.
- We confront what has been described as massive failures in the HE marketplace (e.g., students and families lack good information about how to choose among universities on the basis of quality in relation to price) (Massy, 2016).
- Despite growth in competition in HE, increasingly prices are used to try to signal high quality; these higher sticker prices are combined with wide-spread merit discounting. This has long been the story for private non-profits but has also increased significantly for large public research universities over the last several decades (Dills and Rothoff, 2013; Fillmore, 2016). So, posted tuition information gets lots of public/political attention, but may be of limited value. And average net prices are just as difficult to compare. For UNM, our very low price points, especially in the case of out-of-state students (OOS), may actually be viewed as a signal of low quality. This is especially so if combined with modest merit discounting and below average graduation rates (nationally) for a state flagship institution.
- Many argue that there is significant loss of public confidence in higher education. Certainly, we confront general public pressure for accountability in containing costs and any growth in tuition (See LFC, 2017; and Kelchen 2018a).

- As we become more tuition dependent on the UNM campus, there are legitimate concerns about access, affordability and student debt. (But not well-understood is how the general growth in debt has been driven by the for-profit sector [see Avery and Turner, 2012; and Dynarski, 2014]) Rising tuition affects affordability and access, and disproportionately so for low income households. This equity concern is exacerbated for UNM in that the NM Legislative Lottery Scholarship is not needs based, which limits targeting (see Bell et al., 2018 for a general discussion of state lottery effects) and may differentially affect students from different income strata or college preparedness levels (see Ervin and Binder, 2018).
- We rely on state support, which has been declining, but have significant limits or constraints on our ability to price differentiate and capture revenue. Some of these constraints are self-imposed.
- We compete for federal research funding, which could be declining in the current administration, and with potential deregulation, limited aggregate federal appropriations for grants and loans are increasingly open to competition. Sustaining brand recognition and success as a public research university requires significant financial commitment to research, which may come with internal trade-offs (see Rouse et al, 2018).
- Finally, some argue that there are clear and present market threats posed by disruptive innovators in HE. They may be using new delivery technologies, and are often highly nimble, for-profit institutions (see Gilpin et al., 2015). There is clear entry, or growth in HE competitors, who are unbundling and offering educational services in wide variety of formats. Many scholarly investigations are much more circumspect about the ability of these new competitors/technologies to improve efficiency or deliver cost savings, and additionally argue that the demand for the traditional four-year college bundle remains relatively strong (e.g., Archibald and Feldman, 2017). At a minimum, there is considerable uncertainty of how all of this will change costs curves and market equilibrium prices in HE.

In closing, despite these many challenges and headwinds, UNM continues to provide affordable access to higher education for a wide swath of society, with a majority-minority student population and approximately 40% Pell Grant recipients. At a national level, this broad access provided to a majority-minority student population makes us extremely unique for a state flagship university or even just a large public research university (e.g., see Ashkenas et al., 2017). While recent enrollment reductions coupled with flat population growth in NM are significant concerns, long term population projections of likely college-going students are strong for the US Southwest more generally (Grawe, 2017), and should be especially positive for a Hispanic-Serving Institution (HSI), like UNM. Further, UNM ranks extremely high nationally (top 10) in managing to “simultaneously produce important research while extending social opportunity to students of underprivileged backgrounds” (Halikias and Reeves, 2017). Finally, what can be referred to as the “value proposition” offered to undergraduate students and their

families is incredibly good,⁴ if often poorly understood. Combined, with all the multiple value propositions UNM offers to students and communities,⁵ there is much to be positive about and worthy of protecting and enhancing with sustainable financial/budget models.

IV. IDEAS AND PRELIMINARY RECOMMENDATIONS

The following presents a set of preliminary ideas and recommendations generated by Task Force 3 members. Various recommendations were discussed at a series of meetings from April 2018 to July 2018. They are not in any kind of ranked order, and do not represent any kind of consensus set. Rather, they should be viewed as a range of recommendations, of various shapes and sizes, that might be taken up for expected further review in any later phases of the *Redesigning Initiative*. We hope these ideas and recommendations help generate additional ideas, and motivate further campus discussion, investigation and vetting.

1. Study the allocation of research administrative support across campus, to ensure that faculty have access to adequate research administrative support, and staff have both sufficient training and career growth opportunities to thrive.

It is important to note that external research funding on the UNM Main Campus is a similarly-sized wedge to the state subsidy and the tuition and fees portions of the total budget. This sector is a portion that can grow appreciably with proper care and investment. Moreover, investment in the research enterprise is the only way to ensure that UNM retains its status as an R1 institution into the future.

In addition to the direct impacts on graduate education, and to a lesser extent undergraduate education, the health of the research enterprise has impacts on the overall reputation of the institution, and related faculty and staff recruitment and retention issues (see Rouse et al., 2018). Further, students who wish to study at a research institution will be aware of its reputation and opportunities for student involvement in research, which is a large part of the brand of a strong research university.

⁴ For example, the undergraduate value proposition for the average student can be rendered as: (i) what the student and their family can expect to pay out of pocket (including loans but excluding grants) on tuition and fees; (ii) what they can expect to get spent on them in education and related services (i.e., Instruction, Academic Support, and Student Support expenditure categories); and (iii) what they can reasonably expect in terms of student success outcomes (e.g., retention, graduation rate and early career earnings). For detailed discussion and investigation for UNM, see: Bishwakarma and Berrens (2018)

⁵ As with any large research university, UNM Main Campus Academic Affairs produces multiple outputs, which extend beyond the undergraduate value proposition to include a research value proposition, a graduate student value proposition (closely connected to research), and a community engagement value proposition (see Massy, 2016). There are also entertainment and athletics value propositions that connect to NM communities in numerous ways. These value propositions only grow when we extend to consideration and recognition of inter-connections with the UNM Branch Campuses and UNM Health Sciences Center (HSC).

On the other side of the equation, if research support allocation can be optimized, then the available resources may be used to allow researchers more time for project development and to fund new research initiatives. Also, we note the budget wedge for research depends on a healthy population of researchers. If faculty numbers drop appreciably, that necessarily will diminish the size of our research portfolios, and expenditures.

Overall, we need a healthy investment for research to grow and have an efficient research enterprise, motivating the idea for studying how we are currently allocating research support across campus, to identify opportunities for enhanced administrative support for researchers.

2. Evaluate standardized options for graduated/ phased-in retirement, which are widely available to both faculty and staff, and might include increased incentives for particular years (e.g., in budget years with expected fiscal deficits).

The general goal of this idea would be to provide options that are developed ahead of time and pass legal scrutiny. Such phased-in retirement tools would have to be broadly known and available to both faculty and staff, avoid discrimination in use, avoid balloon buyouts or large payments to select individuals, and achieve actual identifiable cost savings to units. They might also make use of student employees (undergraduate and graduate) to mitigate lost employee time or reduced teaching availability, avoid abrupt loss of critical human capital (i.e., facilitating transition planning), and have one or more variable parameter(s) that can be used generally to increase or decrease the expected rate of use of the tool at UNM in a given year. It is fully expected that these would be negotiated programs that meet the needs of both the department or unit and the faculty/staff member. As broadly outlined below, possibilities might include proposals that include state Educational Retirement Board participation and those that don't (i.e., are internal to UNM).

2.a. Graduated Retirement: ERB Staff Proposal

- a. Graduated retirement proposed by ERB staff would replace the current return to work rule exception (retirees can earn the greater of .25 FTE or \$15,000 per fiscal year) and the Return to Work program, which expires at the end of 2021, for participating UNM employees. In other words, once the employee is fully retired, the employee will not be eligible to work in retirement for an ERB-affiliated employer.
- b. Stepwise reduction in FTE preceding full retirement (over 3 to 5-year period).
- c. Percentage of ERB pension paid to employee steps up as UNM FTE decreases.
- d. Years during step down count toward years of ERB services.
- e. Example:

Year	UNM FTE	ERB Pension
1	.8	20%
2	.6	40%

3	.4	60%
4	.2	80%
5	Full Retirement	100%

Benefits to UNM

- Retention of expertise during transition/training of replacement.
- Opportunity to specify areas with labor needs for retiree to fill during the transition.
- Contractually specified transition time with planned full retirement date. Ability to recruit and onboard new employee while current position is still partially filled.
- Improved morale, as ongoing employees are not required to increase workload while empty position left by full retiree is filled.

UNM Costs/Disadvantages:

- Salary costs of concurrent employees, if new hire is on-boarded before planned retirement date.
- Reduction in vacant salary savings.
- Loss of greater of .25 FTE or \$15,000 per fiscal year return to work rule exception option.

Benefits to Retiree/Employee

- Ease of adjustment to retirement when identity is tied to work and the employee still has something to contribute.
- Extended financial planning/adjustment period

Retiree Costs/Disadvantages:

- Loss of greater of .25 FTE or \$15,000 per fiscal year return to work rule exception option.

2.b. Graduated Retirement: Non-ERB

- a. Stepwise reduction in FTE preceding full retirement (over 3-5-year period).
- b. An agreement is reached for an end date of employment and reduction of FTE occurs over the agreed time period.
- c. Incentives for the employee might include:
 - i. One-time salary adjustment during step down period.
 - ii. Continuation of benefits (e.g. health insurance, annual leave, life insurance) during step down period.
 - iii. Continuation of ERB match during step down period.

Benefits to UNM

- Retention of expertise during transition/training of replacement.
- Opportunity to specify areas with labor needs for retiree to fill during the transition.
- Contractually specified transition time with planned full retirement date. Ability to recruit and onboard new employee while current position is still partially filled.
- Improved morale, as ongoing employees are not required to increase workload while empty position left by full retiree is filled.

UNM Costs/Disadvantages:

- Salary costs of concurrent employees, if new hire is on-boarded before planned retirement date.
- Reduction in vacant salary savings.

Benefits to Retiree/Employee

- Ease of adjustment to retirement when identity is tied to work and the employee still has something to contribute.
- Extended financial planning/adjustment period

Retiree Costs/Disadvantages:

- Lower FTE with reduction in total annual salary

3. Economic evaluation of delivering the general education core at UNM.

Historically, for the UNM Main Campus the general education core curriculum has been primarily delivered by departments in the College of Arts and Sciences (CAS), and effectively acted to cross subsidize other education services at UNM. This was not an uncommon model at large public research universities. For a variety of reasons, the core is increasingly open to competition. There are ongoing evaluations of the educational services we provide in the core. But at the same time, we need to evaluate the menu of alternatives and their prices, and better understand the competition we face.

There is growing concern that as we compete with CNM and other institutions, we have to adopt a strategy that changes the game because we are not going to win given its current structure. Even within our Task Force there were differing opinions on whether the UNM Main Campus should compete on quality (e.g., thematically-connected core classes, research and community engagement opportunities linked with core classes, etc.), or compete on price while we look for ways to reduce delivery costs and approaches (e.g., look at accelerated continuous online offerings of these courses instead of the traditional semester by semester offerings). Most, basically, the argument made here is that the review of the general education core has to be connected to an economic evaluation.

4. Explore removing UNM's financial dependence on NM Legislative Lottery Scholarship.

It can be argued that the NM Legislative Lottery Scholarship (NMLSS) effectively acts like a regressive tax, as the lottery itself is expected to have disproportionately higher participation by lower income households (e.g., see Lebioda, 2014). Lower income households also are expected to have disproportionately lower participation in higher education.

The Lottery serves multiple purposes (e.g., entertainment for participants), but is perhaps a highly inefficient mechanism for generating state support for HE funding, with only roughly 30% of proceeds distributed to HE.

The NM Lottery Scholarship (NMLSS) is not needs-based, but rather implicitly generates its political support by providing broad access with relatively modest eligibility criteria for recipients (see general topical discussion in Archibald and Feldman, 2017). The NMLSS heavily contributes to the relatively low proportion of need-based state financial aid for higher education in New Mexico (40 percent in 2013-2014) (Erwin and Binder, 2018). By way of comparison, nationally, with the widespread introduction of state merit-based aid program in the 1990's, "the percentage of total undergraduate state grant aid for which students' financial circumstances were considered decreased from 90 percent to 76 percent" from 1993 to 2013 (Erwin and Binder, 2018).

A high proportion of NM Lottery Scholarship funds at UNM are distributed to students with lower or reduced needs (relative to how the same amount of funding might be distributed without lottery constraints). A smaller amount of funding with greater needs-based targeting (relative to our NM Lottery Scholarship funding) might be able to produce equivalent or higher enrollment, retention and graduation outcomes (e.g., see Bell et al., 2018).

The Chetty et al. (2017) tax-based data suggest UNM students have a median annual household income of >\$73k, which is significantly higher than the state average. At the same time, approximately 40% of UNM students are eligible/receive federal Pell Grants. The combination suggests a possible bi-modal income distribution and underlines the need/potential for better targeting of financial aid funding than the lottery allows.

Additionally, NMLSS has no clear and sustainable relationship to economic development. According to Census data, between 2011 and 2016 New Mexico experienced a net out-migration of 25,550 persons 25 year of age and older to other states. Of this total, a bachelor's degree was the highest level of education attainment for 16,950 persons. Interesting, there was a small net in-migration of 1,570 persons with graduate or professional degrees. From another perspective, a net number of 41,980 persons of any age migrated from the state. Of these, 9,330 persons, or 22% of the total, were between 18 and 29 years of age.

This pattern of out-migration suggests a 'brain drain' of young, well-educated persons. Although these data cannot be directly linked to Lottery Scholarship participation, it may raise the question as to whether the Lottery program is funding the education of persons who soon leave the state for employment elsewhere. Is the state, in effect, subsidizing the development of the labor force of neighboring states with which New Mexico is in competition?

As one alternative, suggested by a Task Force 3 member, UNM might propose that Lottery Scholarship participation require a commitment of recipients to remain in the state for some specified period of time (or face some kind of graduated re-payment plan). This would support the development of New Mexico's labor force, which is key to the broader goal of economic development. A similar program is already in place at UNM. Under the NM Health Professional Loan Repayment Program (HPLRP), health professionals receive student loan relief in exchange for a commitment of two years of medical practice in an underserved area in the state. However, such changes would have to be made legislatively. Further, other Task Force 3

members were unwilling to endorse requiring such commitments on NMLSS recipients, given evidence that it is often not the first choice of the recipient to have to leave NM, but rather the relative lack of economic opportunities.

As a more extreme alternative, UNM might propose trading our expected share of the NM Lottery Scholarship funds indirectly allocated to us annually in return for some annual amount (or inflation indexed amount) that is separate from I&G, and less restrictive in allocation criteria than the Lottery Scholarship. UNM might be able to better target financial aid, by charging a higher net price for higher income households, and a lower net price to lower income households.

5. Evaluation of main campus' economic relationship with the branch campuses.

With a current one-year extension in place on negotiated terms between the UNM Main Campus and the Branches, now is a good time to assess between the current fee-for service type model and alternatives (e.g., franchise fee approach). More generally the growth of online courses (both at the branches and main campus), and the implementation of managed online programs (main campus) raises the need to economically evaluate the larger competitive/cooperative relationship between the branches and the main campus. This economic evaluation can be part of larger reviews of the ways we facilitate students transferring or matriculating from UNM branch campuses to the Main Campus.

6. Commit to implementing an RCM budget model on the UNM main campus over a 3-5-year period.

Committing to implementing a decentralized budget model, along the lines of what are commonly referred to in higher education as Responsibility Center Management (RCM) models, is probably the most far-reaching recommendation. Implementation would involve multiple years. With expected administrative transitions for UNM Main Campus, it would likely have to be connected to the choice of, say, a chief financial officer (CFO) who either had experience in an RCM system or commitment to moving to one.

The implementation process would likely begin by identifying all academic units (Colleges and Schools) and auxiliary units (e.g., Athletics) that will become financial responsibility centers, versus those administrative support units that will be fully supported by an internal tax system. To build out the tax and finance component of an RCM budgeting system, the next step would be to evaluate current policies around assignment of overhead charges to auxiliary units. Implementation would also require developing and tasking an internal implementation team

that draws on recent modeling knowledge (e.g., the work of the UNM committee in 2012-13), and the recent UNM HSC implementation experience.

To avoid pitfalls of implementing RCM when confronting possible multiple years of fiscal deficit (i.e., in order to hold harmless in, say initial 2 years), There may be several possible mechanisms; examples might include: (i) use of current central reserves or in some combination with discretionary unit reserves; and (ii) provide several years of holding RCM units harmless by proposing use of the Regents' Fund, as a complement to what was recently proposed for UNM Athletics. RCM units that generate net revenue growth would be able to bank and retain.

7. Create and allow modified RCM contracts for all colleges or schools that choose it.

The purpose of this preliminary idea/recommendation is to foster greater entrepreneurial opportunities from a more decentralized budget model at UNM but doing so incrementally without initially moving to full RCM.

7.a. Eliminate the I&G Fringe Pool.

A starting point might be to consider eliminating the I&G fringe pool. Currently, employees hired with I&G money have their fringe expenses paid from a central I&G fringe pool. This leads to many distortions in the budgets used to hire employees and disadvantages units that hire employees on non-I&G money (e.g., grants), since they must include the cost of fringe benefits when hiring an employee. At units with access to non-I&G funds, such as donor funds, efforts are made to shift labor costs to I&G accounts, since this reduces the cost to the unit by the cost of fringe benefits.

Eliminating the fringe pool and charging fringe directly to the unit on all hires, whatever the source of money, would result in the removal of the incentive for such "fringe pool arbitrage." To hold units harmless in this, I&G budgets must be increased by the amount that was being withheld to fund the fringe pool. This would also create the incentive for units to staff more effectively and not "over-grade" positions, since the unit would see the fringe savings associated with reducing labor costs.

7.b. For Selected Units, Match Fringe Costs with a Directed Revenue Source

More expansively, one mechanism would be to provide one significant direct revenue source (that a College or School can grow) while making them responsible for one significant cost (that can be reduced), and to start that responsibility from a neutral position. This could be done by implementing a modified RCM for all Main Campus academic units who accept the following proposition: To establish the initial neutral calculated reference point, the College or School is directly allocated a percentage of the tuition revenue they generate from all classes they teach, preferably from the upper division undergraduate and graduate classes, exactly equal to their

current calculated 30% fringe costs. Then, from the beginning of the next FY, they have a claim to that same percentage of premium tuition revenue going forward and are responsible for their actual labor fringe charges going forward. They would be allowed to bank or use any net revenues generated going forward and would be responsible for deficits and debt accumulated. Colleges and Schools that choose this offer would have an incentive to recruit and retain majors through graduation and reduce labor costs. As proposed here, the revenues would be unaffected by the general education core (i.e., there would be no penalty for efficiency in delivering the core), and units would be unable to raise the tuition rate themselves (as it controlled by UNM Regents) but would receive the same percent of any tuition increase.

Finally, as part of this recommendation (and rather than moving directly to an RCM tax system), additional assessment of all administrative charges should be studied, which include all auxiliary units, branch campuses, and component units that use University services/resources. The study should focus on finding a sustainable model that fairly assess administrative overhead based on actual usage/expenditures, and/or best practices for institutions comparable to UNM.

8. Implement instructional or program charges for reducing general education core materials costs to students by financing in-sourcing of instructional support material for the use of open content core class texts.

As state support for public higher education has declined, public universities confront continuing budget problems. A common response has been to increase class sizes, especially in introductory courses. While not typically discussed, over time as instructors deal with large section courses, it has been common to turn to costly commercial textbook packages that offer a full suite of instructional support materials and tools that facilitate handling large class sizes.

While the average annual net cost of Tuition and Fees to an undergraduate student at UNM is approximately \$2,300 (in 2017), the estimated costs of UG textbooks is approximately \$1200, annually. Thus, leaving room and board aside, a very large slice of a typical UNM undergraduate student's academic cost in attending goes to commercial vendors (e.g., textbook publishers). When universities face budget crises, academic departments can expect to see cuts in operating budgets, and if serious to TA and classroom support lines. Not surprisingly then, with large section core classes much of the textbook and classroom support is effectively being outsourced to commercial vendors; this is typically done with online course content and management and bundled in the textbook price. There is also increasing pricing power and consolidation in this industry. In many cases it is not clear that students are getting a good deal for their money (see Perry, 2012).

However, in contrast there is also a growth in available open source textbooks (e.g., *OpenStax*), which can greatly reduce textbook costs but lack significant support services (although there is a secondary market beginning to develop around this need). At the same time, as we watch much of the student expenditure stream go out to commercial vendors, we also hold all the needed expertise to cover many of these support tools/services. The constraint is that it would

be costly to develop and provide. To do so UNM would have find ways to help cover upfront costs for developing and build a financing mechanism, which may have to include changing the ways we think about allowing general program fees. For example, Instructional Fees (which currently can't be used for labor) or Program Charges for general education core delivery might be a vehicle to capture needed revenues, used to create and provide support services, while also covering this labor cost with graduate assistantships. A variety of campus units might be involved in developing textbook support services and reducing or eliminating the reliance on costly commercial textbooks. For example, this might include University Libraries as a repository for support materials. Another suggestion was exploring whether a re-vamped UNM Press can provide some assistance by partnering with faculty/departments to create some of the materials and alleviating the revenue outflow to outside vendors. This could potentially help UNM Press's bottom line. Would it make sense for both our students and our Departments to explore this?

9. Re-design the BLT process to achieve a more all-inclusive budgeting approach.

The Budget Leadership Team (BLT) process for building the Main Campus budget recommendations has been in place at UNM for a half dozen years, with arguably a primary focus on Main Campus Academic Affairs. However, auxiliary units that have incurred significant deficits and debt (e.g., UNM Athletics) have inevitably imposed economic tradeoffs with the Main Campus budget (even if only through draws on central reserves), without being a significant part of BLT discussions. As one example, a not uncommon set of facts over the last 6+ years has been for the Student Fee Review Board (SFRB) to recommend a reduction in student fees to support UNM Athletics, yet have some negotiated alternative happen at the end or after BLT recommendations to not reduce this support. (And SFRB fee increases appear to have risen much faster than overall tuition over the last decade.) In order to improve financial resiliency and minimize such externalities and irregularities, many large universities are moving towards all-inclusive budgeting processes, where units that are traditionally treated as separate from main campus academic affairs are included. Examples for inclusion at UNM might more directly include auxiliary units like Athletics (traditionally not part of BLT). There may also be opportunities to improve efficiencies if largely non-I&G units (e.g., VP for Research office) are also included. Thus, this suggestion is connected to the emergence of what are called "all funds" approaches to budget philosophies; such budget models are increasingly discussed and seen in public higher education (e.g., see Costantinditis, 2015).

The basic idea is that it may be an appropriate time to re-think or at least review the structure of the Budget Leadership Team, which could move towards a broader all-funds perspective, and operate as a data-driven, transparent and collaborative network (e.g., Soares et al., 2016). Such a structure might help improve financial resiliency by ensuring that isolated pockets of recurring fiscal problems aren't left outside of the BLT's collective scrutiny.

10. Help decrease or control lower division instructional costs through graduate student teaching fellows reallocation.

UNM Main Campus has recently observed losses in SCH's across many disciplines and especially in our general education core classes. UNM confronts an increasingly competitive setting for the general education core. For example, more sources are providing fully-transferrable, and often online, offerings in-state and out, and often for a much lower price. Thus, UNM will have to re-think how we compete in this market on both quality and price dimensions, as well as how we structure labor costs devoted to core delivery. The general education core has traditionally been used to cross subsidize other parts of the educational mission. Cutting price (to price compete) or charging a gen-ed core differential tuition (to quality compete) are all options. But, these may be difficult paths, so it may require re-allocating internal resources to deliver quality in the core. Or, this could be a multi-year, targeted new funding request in the Main Campus budget (and \$200k was devoted to this in the 2018-19 budget).

In the case of the 2018-2019 approved budget, the entire new money request (\$200K) for General Education in the 2018-19 budget was targeted for the funding of UNM graduate student **Teaching Fellows**, who would be employed in helping cover the general education core curriculum at UNM. If targeted similarly, this could be a multi-year request that can both help reduce labor costs of core delivery and provide a source of funding support for graduate student teaching fellows.

These Teaching Fellows could be awarded one-year term TA contracts and selected competitively from the pool of current UNM PhD students. It could be targeted to students who have expressed an interest in teaching careers and already shown significant potential to be high quality instructors (e.g., through teaching assistantships and prior recitations, labs or in initial instruction assignments). 4th and 5th year PhD students would compete for these Teaching Fellowships while they complete their PhD's and enhance their teaching credentials for the higher education marketplace. For example, Fellowships might be awarded at 0.50 FTE and be expected to teach a 2+2 load for the AY with their focus on delivery of the general education core curriculum. At a base salary, say, of \$40k to \$50K (1.0 FTE) this would be a salary of \$20K to 25K, but would come with benefits (fringe paid from the central pool). Departments awarded a Teaching Fellow might be required to pay the tuition (which would be expected to be only dissertation hours). This would be recurring funding, starting with \$200K, then at \$20K (or \$25K) each, this would equate to 10 (or 8) new Teaching Fellows for supporting the General Education core curriculum. With further additions, then this pool of Teaching Fellows could be expanded. Each year a cohort of Teaching Fellows would be provided this opportunity.

Even though they might be in different disciplines, the Teaching Fellows would be treated as a cohort and work extensively, for example, with the Center for Teaching and Learning (CETL) at UNM, to receive extra training, and to implement and experiment with the best in new pedagogical approaches, including ONL, F2F and hybrid delivery systems, and learning

strategies. The cohort of Teaching Fellows could also be recruited to help diversify the pool of future teachers in Higher Education.

The Teaching Fellows program can become an important part of how we respond to an increasingly competitive market for the general education core. The philosophy is that graduate students should be viewed as an important part of our labor pool at UNM, not just for research but also for teaching programs, and our goal should be to best use this labor supply in ways that benefit both graduate students and the undergraduate students they teach.

11. Explore implementation of an expansive in-state freshmen tuition policy.

UNM Main Campus is experiencing declining enrollment, and as a result has some excess capacity. As such, this underlines the point that the important cost is the not average cost of educating a UNM student but the marginal cost of adding students within the current capacity.

With this in mind, one option is to better align UNM's internal subsidy and tuition pricing structure to better reflect actual education delivery costs. One of those internal tuition pricing structures is the rate we charge non-resident students. This rate is roughly 3.5 times the resident (but they pay equivalent fees and differential tuition). Thus, as is common in public higher education, non-residents are substantially cross subsidizing resident students. The caveat is this rate varies greatly with both general programs (e.g., WICHE) and individual (e.g., merit scholarships) price discounting. This is done for a variety of equity reasons, but not efficiency reasons. From the perspective of actual cost of educational delivery, there is no difference to UNM of educating a resident student or a non-resident student.

With excess capacity, we could absorb more non-resident students and have them pay the full resident rate or something close to our true marginal cost in educational delivery. The other key point is that they pay the full resident rate (and the full fees, differential tuitions and upper division premiums as they matriculate), as they would not be eligible for the NM Legislative Lottery Scholarship. (So, in reality they would pay much more than the typical resident student).

Thus, one option as we move towards more price variation that better reflects our marginal cost function in educational delivery (i.e., greater use of upper division price premiums) is to make greater use of price discounting for some select or targeted segments of non-resident students.

For example, we could implement what might be called something like-The Good Neighbor Tuition Policy. As long as a prospective student's established home address is within, say, 500 miles of UNM Main Campus, all nonresident freshmen with a minimum ACT score of X, will be admitted and pay the in-state NM resident tuition rate as long as they accept admission by date Y. They are further guaranteed the resident rate for as long as they consecutively attend UNM. Thus, our marketing campaign might be: "Consider UNM -- If you can drive here by dinnertime,

then you pay in-state rate.” This policy would pick up large population centers, such as: Phoenix, Tucson, Flagstaff, Lubbock, El Paso, Pueblo, Colorado Springs, Denver and even international students in Mexico. With time, as we better understand the yield rate, or as need changes, we could calibrate the variables X and Y.

Another way to think about this from a budget perspective is: currently (with declining enrollment) would we be happy, to pick up another, say, 500 resident students from NM that pay the full resident rate? The current answer seems Yes, with our excess capacity. So, why would we not want to slightly re-draw the spatial polygon that defines our current internal pricing structure to pick up these good neighbors who would pay the same (or likely more at full resident rate), and not cost us any different in educating?

Finally, while this recommendation was focused on undergraduates some Task Force members suggested that it also be extended to a variety of graduate programs to help improve enrollments. This might be targeted to Masters-level programs, which have limited graduate teaching or research assistantships and most students have to cover tuition themselves.

12. Rather than adopt a new budget model, explore and establish basic principles that should be adopted if we expect to confront ongoing future budget deficits.

We have been exploring alternative budget models (e.g., RCM variants) at UNM main campus for more than a decade; but, they never got off the ground as we kept confronting shortfalls. We need an alternative budget philosophy or set of basic budget principles that moves UNM away from incremental base budgeting, or the crisis budgeting that we have been doing, and that we can begin to implement and refine no matter what each year brings. The following is an **example** 5-point philosophy: Benchmark-Shrink-Invest-Direct and Efficiency (BSID-E)

Benchmark: Units that are best considered support units (and not expected to generate significant revenue in and of themselves) must be appropriately scaled. For example, using major IPEDS expense categories, Institutional Support Services must be regularly monitored to never become disproportionately large relative to the larger organization. As recently promoted by the Association of College Trustees and Alumni [ACTA] (2017), in considering the ratio of Institutional Support Services expenditures to Instructional and Academic Support expenditures, Universities should benchmark this ratio (ISS/I+A) to be at or below their Carnegie Classification median (or for UNM, perhaps preferably the median of our HED peer-institutions). The recent LFC (2017) report on higher education has shown UNM to be running slightly high against this benchmark (although we have fluctuated either slightly below or above over last decade). Alternative benchmark ratios could be developed and tracked.

Shrink (or Dis-invest): Cutting is always controversial, but sometimes needed. In a new era of reduced public subsidy, auxiliary units that are best considered or categorized as enterprise units shouldn't pull down the academic mission. Auxiliary units that regularly fail to meet their budget must shrink (e.g., recent examples include cuts to UNM Athletics and the UNM Press [re-organized]). This does not necessarily mean elimination, but it does mean

downsizing and putting unite on a plan to reduce a deficit when it does occur, so that annual deficits don't accumulate a larger debt. Just as controversially, academic departments that experience prolonged reductions in enrollments, may also have to be subject to some transparent, rule-based way of being shrunk (e.g., reduced replacement rate in faculty lines as has recently been in place in Academic Affairs). What may be most important is that campus follows transparent processes for any possible strategic cuts or reductions.

Invest: In the highly competitive higher education market, we must seek out new revenue sources; but these efforts must be both consistent with our core mission and cannot worsen our long-term financial situation. For example, this may mean investing in a significant way in the research enterprise, and pursuing excellence in research that successfully competes for increased external support. To improve student recruiting, it may mean making significant investments in improving campus safety, student services or community engagement efforts. Or it may mean introducing new modes of educational delivery to pursue new markets, and take advantage of changes in technological advances while recognizing new understandings of how students learn best, and accommodating a variety of learning styles, etc. An example may be the introduction of the managed online programs (MOP) at UNM. But, there are economic reasons to be circumspect (e.g., lots of emerging substitutes and competitors). And new programs can't be built as an ongoing implicit tax on current entities that are our best net revenue generators. It is recognized that investments take time to generate net revenues, but there must be a plan that is open to all. This means seeking out new revenue sources to generate marginal revenues that are greater than their marginal costs, and that those new investments be subject to full cost and revenue accounting that is open and transparent.

Direct: If we increasingly rely on tuition to be more self-sufficient, then we must be more transparent to students where their tuition dollars go and how they are implicitly taxed. And we must find a way for a greater proportion of these dollars to be directed as efficiently as possible to student success. For example, we could allow students to vote with their virtual feet by allowing *Directed tuition* for every academic unit, using (or modifying) Policy 8210. In doing so, we will gradually re-proportion the cross-subsidies that are baked into the system. And we could create Mission/Margin compacts in Academic Affairs, which include reviewing how academic units are using their directed tuition to improve student success

Efficiency: Following the LFC (2017) report, the guiding principle to all these efforts must be the pursuit of efficiency. But unlike the LFC report, we must be more explicit about what this specifically means: *identifying the lowest cost methods for achieving the highest return in support of the academic mission*. We must create and embed a philosophy where we are repeatedly asking whether we are pursuing efficiency. This may mean not just cutting costs across the board but prioritizing cuts and finding ways to sustain and enhance student outcomes.

In closing, BSID/E is an example philosophy, which is meant to prompt further discussion.

13. Economically evaluate the impacts of the "Finish in Four" scholarship, which began in 2015 at UNM.

Beginning in 2015 for freshmen who graduated in 8 regular semesters, UNM's Finish in Four program covers undergraduate tuition (or the portion of tuition) in the final semester that is not paid by another source (excluding Pell Grants) such as institutional, state, private or gift aid. Students receiving the NM Legislative Lottery Scholarship are eligible to receive funding in the amount of tuition not funded by the program. Students whose tuition is paid in full by a source other than Pell Grants do not receive funding.

Certainly, there are admirable goals to having students finish their undergraduate degree programs in four years. However, this program effectively is giving a price discount to what in practice may be a group of students with high relative price inelasticity (and thus a source of lost revenue). Further, it may not be inducing a significant behavioral change, if such students were likely to graduate in four years at similar rates.

It is possible that this program is operating as a demand inducement on the front end (marketing, freshmen enrollment, etc.). But, absent significant evidence of a such an effect, then the net result could be a source of lost revenue with little actual graduation impact. From an equity perspective, the group of students who are likely to be able to graduate in four years may be likely to have significant accumulation of AP credits, fewer remedial needs, less likely to have to work outside of school, and more likely to come from high-income households. Thus, from both efficiency and equity perspectives, there may be much better ways to target the same amount of financial aid/price discounting. These are all questions that can and should be evaluated with UNM's own internal data.

14. Thorough review of UNM's differential tuition policy.

Public universities are making increasing use of differential tuition and program fees (as opposed to specific class fees). Use of such charges offer a variety of budgeting advantages: allowing price differentiation to capture revenues needed for financial sustainability; helping to minimize central administration costs as they may avoid implicit taxation in a centralized budgeting model; and acting as quasi-efficiency measures if based on marginal costs (MC) of program delivery and/or marginal utility [MU] (or marginal willingness to pay of students with higher income expectations in their field).⁶ They are especially important for any university, like UNM, that has been gradually confronting a movement away from a low tuition, high public subsidy model. Increased use of differential tuition and program charges— where revenues flow

⁶ MC and MU arguments typically are the basis for justifying differential tuition and program charges at most universities and are implicit in UNM's 8210 general justification criteria. However, there is no evidence of any activity-based cost estimation done at UNM; further, since almost all academic programs at UNM pay significantly below market wages, then all would meet the UNM current justification criterion. Finally, MC and MU evidence in HE is complicated and does not always conform to simple assumptions (Center for STEM Education and Research, 2013; Webber, 2018). For example, on the MU side, for career earnings expectations (see Webber, 2018b) for the top dozen actual majors offered by UNM, 5 of the 12 (and 3 of top 4) are located in a college not allowed a hearing on their recent DT proposals.

directly to the unit – helps provide more voice to student program demands, as funding moves to where student demand is growing. With calibration, they can help to slowly alter some of the internal cross subsidies that may have built up in often unexplainable ways in budget models built on a history of high public subsidy. Finally, if widely allowed and applicable, then they allow all units to be entrepreneurial.

UNM Policy 8210 governs applications of differential tuition requests at UNM, and it would appear to be a good time for a thorough policy review. For example, in 2016-17, one of UNM's largest STEM departments, with both strong MC and MU arguments and detailed student survey support information, was not allowed to present their differential tuition (DT) proposal to any Regents' sub-committees (e.g., ASAR or F&F) or the larger Board. There does not appear to have been either a formal vote from the UNM BLT, or recorded denial by the Provost's Office. Subsequently, a large college, and home to the prior STEM department, submitted a detailed proposal in 2017-18 for a college-wide differential tuition, and it was not allowed any hearing in front of the BLT, and again no formal denial was made. To be clear, there may be highly valid reasons for these decision (e.g., as part of larger tuition pricing packages), but they were not done in any kind of policy-driven and transparent way. Further, as currently implemented at UNM, available audit information indicates that approximately 80% of approved UNM DT revenues have been expended on labor costs (primarily faculty, and some staffing). Given that nearly all academic departments at UNM are paying faculty wages significantly below market (by Provost's Office reported CUPA comparisons) and HED-chosen Peer comparisons, then effectively policy 8210 becomes a mechanism for picking budget winners and losers. This is exacerbated in that as currently applied at UNM the collected differential tuition charges are attached to a student, with revenues distributed 100% to the student's major unit. If different than the student's major unit, then no revenues are shared with the units that actually teach the courses subject to a DT charge. By initial calculations, it appears that literally millions of dollars of differential tuition revenues are being generated in colleges or schools without a DT, but these units are receiving none of the revenues to cover the costs. It is not in any way clear that this is formally part of 8210, but as currently applied it undermines any cost-based arguments supporting many of the DT's in place.

The general issue of price differentiation at UNM becomes even more confusing when it is recognized that *identical* courses (with same numbering and fully transferrable/accepted transcription), with identical delivery mechanisms (e.g., online) but sourced differently from either the Main Campus or branches effectively have differential tuition rates. Such courses can all be found on the same UNM registration page/mechanism. However, this does not appear to be addressed or covered by UNM Policy 8210.

Thus, the basic idea/recommendation here is to do a thorough review of UNM Policy 8210, with a broad compilation of stakeholders. But, most generally, the idea is to investigate the way we do differential tuition pricing at UNM.

15. Increase enrollments and revenues by building and enhancing improved dual degree pathways, with strengthened partnerships that break down traditional administrative barriers.

Certainly, a wide variety of dual-degree options already exist at UNM, but this idea/recommendation is for expanding partnerships across traditional silos and internal barriers. Then, as these pathways are built, we extensively market them, and price them in creative ways. A first broad example might include Main Campus and HSC Partnerships; that is, more partnerships like the BA/MD programs (without the legislative base funding), and broadly available to everyone. Specific examples could include: BA Business/MD program; BS Biology /Pharm D; BS Exercise Science/MS and Doctorate in Physical Therapy; BS Chemistry/MS and Doctorate in Nursing; and BS Sociology/MS public health. A second broad example might include Partnerships within Main Campus, which are cross-college. This could include increased marketing and/or more interdisciplinary accelerated dual degree programs that are combined BA/MA, BS/MA, BA/MPA (or MPH) and/or BS/MS that one can complete in five years (3+2 and 4+1). Specific examples might include: BS Econ and MPA (about to be implemented); BS Criminal Justice/JD; BS Mathematics and MS Civil Engineering. In many cases, these opportunities already exist, but the recommendation is to have a collective strategy where we purposefully reduce traditional administrative barriers, better articulate the pathways for students, market them extensively, and find ways to creatively price (i.e., offer price discounts during the graduating semester of a dual [UG/GR] degree program). More expansively, that strategy will include additional articulation agreements with external partners (e.g., as in recently completed 2+2 agreement by ASM with a cooperating university partner in China, and underway with SPA).

16. Thorough policy review for UNM Main Campus reserves.

In a time when it may be critical to invest in our primary academic mission (e.g., declining enrollments), there may be a need for a thorough policy review of the prudent level of UNM Main Campus reserves that should be held and their purposes. One policy question is whether we are currently maintaining too large a level of reserves (i.e., exceeding HED prudent reserve requirements of 3%?), especially if we include both central administrative reserves and unrestricted reserves out in the colleges and schools. For example, we could regularly track central reserves under a single transparent definition and have a specific policy prescription for the level to be maintained (given known information about unrestricted reserves in the various academic units). Another policy question is whether we need to look at distributed reserves out in units that are not restricted in nature and use those to invest in programs or possibly to assist the transition to an RCM budgeting model. For example, if reserves are basically staying the same in a unit over a three-year period, then a portion would need to be invested in the academic/overall mission of the University (where the unit would have to develop a plan for doing that, or possibly put the reserves at risk). Further, if UNM Main Campus were to move towards some RCM variant, then a reserve policy that allowed for banking (and planned investment) by growing academic units might be considered. To be clear, an annual

presentation of Main Campus reserves (highly dis-aggregated) is regularly made to the UNM BOR; but, given that they are a continuing point of discussion, then the time may be right to more deeply investigate policy alternatives around reserves.

References

American Academy of Arts & Sciences. (2015). *Public Research Universities: Understanding the Financial Model*. Cambridge, MA: American Academy of Arts & Sciences. Retrieved from https://www.amacad.org/multimedia/pdfs/publications/researchpapersmonographs/PublicResearchUniv_FinancialModel.pdf

American Council of Trustees and Alumni [ACTA]. (2017). *How Much is Too Much? Controlling Administrative Costs through Effective Oversight*. American Council of Trustees and Alumni. Retrieved from <https://www.goacta.org/images/download/controlling-administrative-costs.pdf>

Archibald, R., and D. Feldman, (2017). *The Road Ahead for America's Colleges and Universities*. Oxford University Press.

Ashkenas, J., H. Park, and A. Pearce. (2017). Even with Affirmative Action, Blacks and Hispanics are More Under-represented than 35 Years Ago. *New York Times*, August 24, 2017. URL: <https://www.nytimes.com/interactive/2017/08/24/us/affirmative-action.html?hpw&rref=education&action=click&pgtype=Homepage&module=well-region®ion=bottom-well&WT.nav=bottom-well>

Site accessed: 06/23/18.

Avery, C. and S. Turner. (2012). "Student Loans: Do College Students Borrow Too Much – Or Not Enough? *Journal of Economic Perspectives*. 26(1):165-192. <http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.26.1.165>

Bell, E., W. Wehde, and M. Stucky (2018). Supplement or Supplant? Estimating the Impact of State Lottery Earmarks on Higher Education Funding. *Education Finance and Policy* https://doi.org/10.1162/edfp_a_00262

Bishwakarma, R., and R. Berrens (2018). Understanding the Undergraduate Value Proposition at the University of New Mexico. White Paper, Department of Economics, University of New Mexico. <https://econ.unm.edu/common/documents/value-proposition-7-07-18-version-21.pdf>

Bowen, W., and M. McPherson (2016). *Lesson Plan: An Agenda for Change in American Higher Education*. Princeton University Press.

Caplan, B. (2018). *The Case Against Education: Why the Education System is a Waste of Time and Money*. Princeton University Press.

Center for STEM Education and Research. (2013). *How Much Does It Cost Institutions to Produce STEM Degrees?* Delta Cost Project. American Institutes for Research. Retrieved July 6, 2018 from: <https://deltacostproject.org/sites/default/files/products/Cost%20to%20Institutions%20of%20STEM%20Degrees.pdf>

Chetty, R., Friedman, J. N., Saez, E., Turner, N., & Yagan, D. (2017). *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility* (No. w23618). National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w23618.ack>

Costantinditis, T. (2015). *Evolution from State Funds to All Funds Budgeting*. UC System-wide Academic Business Officer Group (ABOG) Annual Conference. Retrieved July 12, 2018 from: https://abogconference.ucsc.edu/conference-locations/2015/program-information/presentation-materials/abog2015_costantinidis.pdf

Deming, D. and Walters, C. (2017). The Impact of Price Caps and Spending Cuts on Postsecondary Attainment, National Bureau of Economic Research, Working Paper 23736. Retrieved July 12, 2018 from: <http://www.nber.org/papers/w23736>

Dills, A. K., & Rotthoff, K. W. (2013). Price-Increasing Competition: Evidence from Higher Education. Retrieved July 12, 2018 from: <https://robertkelchen.com/2018/05/10/is-administrative-bloat-a-problem/>

Dynarski, S. (2014). *An Economist's Perspective on Student Loans in the United States*. Economic Studies Working Paper Series, Brookings Institute. Retrieved July 5, 2018 from: https://www.brookings.edu/wp-content/uploads/2016/06/economist_perspective_student_loans_dynarski.pdf

Education Advisory Board. (2014). *Optimizing Institutional Budget Models: Strategic Lesson for Aligning Incentives and Improving Financial Performance*. The Advisory Board Company. Retrieved from <https://www.cwu.edu/provost/sites/cts.cwu.edu.provost/files/EAB%20Optimizing%20Institutional%20Budget%20Models.pdf>

Ehrenberg, R. G. (2012). American Higher Education in Transition. *Journal of Economic Perspectives*, 26(1), 193–216. <https://doi.org/10.1257/jep.26.1.193>

[Erwin, Christopher & Binder, Melissa \(2018\)](#). Does Broad-Based Merit Aid Improve College Completion? Evidence from New Mexico's Lottery Scholarship. *Education Finance and Policy* (forthcoming)

Fethke, G., and A. Policano. (2012). *Public No More: A New Path to Excellence for America's Public Universities*. Stanford University Press.

Fillmore, I. (2016). Price Discrimination and Public Policy in the U.S. College Market. *Employment Research Newsletter*. Volume 23, Number 2. W.

Gilpin, G. A., Saunders, J., & Stoddard, C. (2015). Why has for-profit colleges' share of higher education expanded so rapidly? Estimating the responsiveness to labor market changes.

Economics of Education Review, 45, 53–63. <https://doi.org/10.1016/j.econedurev.2014.11.004>

Grawe, N., (2017). *Demographics and the Demand for Higher Education*. Johns Hopkins University Press.

Halikias, D., and R. Reeves, (2017). *Ladders, Labs or Laggards? Which Public Universities Contribute Most?* Brookings Institute. URL: <https://www.brookings.edu/research/ladders-labs-or-laggards-which-public-universities-contribute-most/> Site accessed: 06/20/18

Hanover Research. (2013). 6 Alternative Budget Models for Colleges and Universities. Retrieved July 12, 2018 from: <https://www.hanoverresearch.com/insights-blog/6-alternative-budget-models-for-colleges-and-universities/>

Kelchen, R. (2018a). *Higher Education Accountability*. Johns Hopkins University Press.

Kelchen, R. (2018b). Is Administrative Bloat Really a Big Problem? Retrieved July 12, 2018 from: <https://robertkelchen.com/2018/05/10/is-administrative-bloat-a-problem/>

Lebioda, K. (2014). A Gamble with Consequences: State Lottery Funded Scholarship Programs as A Strategy for Boosting College Affordability. Policy Matters – A Higher Education Policy Brief. American Association of State Colleges and Universities. Retrieved July 6, 2018 from: <http://www.aascu.org/policy/publications/policy-matters/statelotteryscholarships.pdf>

Legislative Finance Committee [LFC], New Mexico. (2017). *Program Evaluation: Higher Education Cost Drivers and Cost Savings*. Report #17-02. Program Evaluation Unit. Retrieved June 25, 2018 from https://www.nmlegis.gov/Entity/LFC/Documents/Program_Evaluation_Reports/Program%20Evaluation%20Higher%20Education%20Cost%20Drivers%20and%20Cost%20Savings.pdf

Martin, R. E., & Hill, C. (2014). *Baumol and Bowen Cost Effects in Research Universities* (SSRN Scholarly Paper No. ID 2153122). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=2153122>

Massy, W. F. (2016). *Reengineering the University: How to Be Mission Centered, Market Smart, and Margin Conscious*. JHU Press.

Perry, M. (2012). *The College Textbook Bubble and How the “Open Educational Resources” Movement is Going up Against the Textbook Cartel*. Carpe Diem, American Enterprise Institute. Retrieved April 9, 2018, from <http://www.aei.org/publication/the-college-textbook-bubble-and-how-the-open-educational-resources-movement-is-going-up-against-the-textbook-cartel/>

Rouse, W., Lombardi, J., and Craig, D. (2018). *The Future of the Higher Education Enterprise: Research Universities Today and Tomorrow, A Computational Approach*. Retrieved July 12, 2018 from: <https://provost.unm.edu/initiatives/redesigning-the-university/pnas-rouse-lombardi->

craig.pdf

Soares, L., Steele, P. and Wayt, L. (2016). *Evolving Higher Education Business Models*. Center for Policy Research and Strategy, American Council on Education. Retrieved July 16, 2018 from: <http://www.acenet.edu/news-room/Documents/Evolving-Higher-Education-Business-Models.pdf>

State Higher Education Executive Officers [SHEEO]. (2017). *State Higher Education Finance, FY 2016 Report*. Retrieved June 25, 2018 from http://sheeo.org/sites/default/files/SHEEO_SHEF_2016_Report.pdf

Webber, D. (2018a). Higher Ed, Lower Spending: As States Cut Back, Where Has the Money Gone? *EducationNext* 18(3) <https://www.educationnext.org/higher-ed-lower-spending-as-states-cut-back-where-has-money-gone/>

Webber, D. (2018b). Projected Lifetime Earnings by Major. Retrieved July 5, 2018 from: http://www.doug-webber.com/expected_all.pdf

[Webber, D., and Ehrenberg, R. \(2010\). Do Expenditures Other Than Instructional Expenditures Affect Graduation and Persistence Rates in American Higher Education. *Economics of Education Review* 29\(6\): 947-958.](#)

Appendix G

UNM Redesign Task Force 4 Report

Trends in higher education and best practices of peer institutions with respect to student services that align with UNM's strengths and mission.

Description

In response to changing demographics and future trends in higher education, it is critical that universities examine and adapt their approach to student services and educational practices. Task Force 4 should consider student outreach and recruitment, advising, course scheduling, methods of demonstrating academic competence and satisfying curricular requirements, optimal use of summer sessions, community internships, financial aid, campus environment, extracurricular activities, etc. Several universities have successfully adopted a service blueprinting or "customer's perspective" approach to student services in an effort to better align those services with student needs. The purpose of this task force is to review trends in higher education and best practices of our peer institutions with respect to student services and to propose recommendations within a service blueprinting model that best align with UNM's strengths and mission.

Participants

Terry Babbitt (Chair) – Vice Provost of Enrollment & Analytics

Tim Gutierrez – Associate Vice President of Student Services

Shirley Rey Lovato – Senior Academic Operations Officer, College of Arts and Sciences

Chuck Paine – Professor, Associate Chair of Core Writing, Department of English

Fran Wilkinson – Professor, Senior Associate Dean, College of University Libraries & Learning Sciences

Ryan Gregg – Student Success Advisor, Data Manager, Office of Admissions

Mala Htun – Professor of Political Science, Co-PI and Deputy Director, ADVANCE at UNM

Marcos Roybal – Associate Director, University Services

Diane Marshal – Professor, Associate Dean, College of Arts and Sciences

Todd Ruecker – Professor, Special Assistant to the Dean, Department of English

Executive Summary

Student services at a major research university constitute a broad range of centralized and decentralized support from peers, faculty and staff who may assist students in a facile, transient manner; as an embedded professional whose life's work and calling is to help students; or as is most often the case, support that lies somewhere in between. This support has never been more critical as emphasis on student success has intensified to the point where every institution is laboring to improve their retention and completion rates. The rhetoric of describing one half of all higher education students as failures due to not completing a degree in a specified time frame has resonated with a public who simultaneously ingests broadcasts of tuition increases exponentially higher than the rate of inflation. The so-called "bubble" grows as observations of runaway costs conflate with data of poor outcomes. As a result, institutions of all types scramble to launch a barrage of efforts focused on student support. The University of New Mexico has participated in this same effort with primary emphasis on improving graduation rates. Entrance requirements, course restructure, academic support and co-curricular programming have all experienced revisions aimed at improving student time to degree. Results speak for themselves as UNM has more than doubled the four-year graduation rate, set records of student outcomes in various metrics and has performed among the very top peers in improvement rates. There is much work to be done and the university redesign could present a path for actionable activities to support students. For our deliberations, we categorize support into three different themes by order of student encounter: enrollment services where all students touch the system of entering the ecosystem, registering and paying; student learning which is the most important aspect of our deliverables and primarily includes what takes place in the academic environment; and co-curricular that encompasses many aspects of the student experience outside the classroom and instructional interaction. The graphic below illustrates these categories with specific initiatives grouped accordingly.

Student Services Goal: Academic Success through Learning and Engagement		
Enrollment Services	Student Learning	Co-curricular
<ul style="list-style-type: none">• Leverage technology• Students.unm.edu• Policy reviews• Affordability• Cohort analytics• Continuous engagement• Mobile responsive	<ul style="list-style-type: none">• Co-requisite instruction• Introductory UNIV courses• Artificial intelligence• Competency-based credit• Prior learning assessment	<ul style="list-style-type: none">• Student Affairs reorganization• 4-day classroom schedule patterns• Enrichment experiences• Advising tools• Campus climate & safety

These are expansive categories when considering all of the possible touches of the student body. Task Force 4 narrowed the scope to emphasize strategies that could be implemented in relatively short notice and timeframe so multiple items discussed in more detail have a functional presence with nascent planning details.

Emphasis on enrollment services would normally include technological upgrades such as the institutional student information system (SIS) and corresponding self-service components that would improve the student experience. The move to Banner 9 in the Ellucian enterprise resource planning (ERP) system represents our current progress in this arena. There is nothing extraordinary about this upgrade and it does not represent next-generation thinking in the rather mundane world of college and university ERP applications, but it is the next step in upgrading the SIS experience for all users. The short term does not offer financial or visionary opportunities for major changes in the way UNM thinks about these systems, but attention is on what the next iteration should provide.

The student learning component is championed by the faculty who have created or embraced enhancements to the learning environment through redesigning curriculum, implementing adaptive course technology, changing program requirements and revising placement standards among other things.

The co-curricular backdrop on campus is extensive and includes a vast number of entities that are also part of the academic core in addition to a large cadre of staff and programming that originate from both on-campus and the larger community.

Our initial recommendations include an improved method to assist students encountering difficulty; a Student Affairs structure that cohesively and efficiently supports student success in the co-curricular ethos; and a consideration of enhancing course scheduling where students can take a full load of classes in conjunction with enrichment opportunities in the same week-long period.

Recommendation 1 is that a new students.unm.edu website be launched with a revised look and feel designed to appeal to students searching for answers to some of the most common problems they encounter at UNM. This tool can serve as a one-source, easy-to-remember support structure for everyone to access when in need of help.

We believe a focus of assisting students who run into challenges during the enrollment services phases of the student lifecycle as well as other periods should be a one-stop information portal that can guide them, as well as faculty and staff who are also providing direction, to support resources for a long and diverse range of possible issues that students face.

The revision and maintenance of this resource should be aligned with an organizational unit working closely on centralized student success initiatives.

Recommendation 2 is to consider reorganization of the Division of Student Affairs. This division is the primary conduit for co-curricular programming on campus. The services are very broad with depth in some areas but a lack thereof in most, resulting in wide-ranging goals and objectives that may or may not be aligned with institutional academic and student success priorities. Duplication of effort, isolated focus and unilateral communication often result within division activities and initiatives. There is much good work and many great personnel in Student Affairs, but a structural reorganization will benefit all including the staff and students they serve.

Recommendation 3 is to evaluate the benefits of a scheduling model that allows students to achieve a fifteen-credit hour load schedule on a Monday-Wednesday, Tuesday-Thursday pattern. This would standardize a tendency to creep in this direction that has been underway for some time and afford true enhancements to classroom work that would benefit students in career preparation and community engagement.

Several universities are contemplating this change or have already committed to this scheduling paradigm. Institutions are recognizing the need to do more for their students than just transcribing 120 hours of credit and mailing a diploma. Accountability and workforce expectations are higher than ever, and students would greatly benefit from additional experience related to their degrees through internships, global experiences, cultural immersion or community service. There could be concern that conducting traditional structured courses only Monday through Thursday would create the appearance of a casual 4-day week which may embolden those who already question the university's work ethic.

There would need to be required intentionality and accountability in the enrichment activities designed to benefit students during Friday events. The template for this project is constructed and it could be implemented on fairly short notice.

Students.unm.edu

Many institutions attempt to capture the majority of student concerns through “one-stop” services designed around a physical and/or virtual space. The challenge with physical spaces is that it is impossible to co-locate every service and support resource a student might need at one physical location. Ultimately, successful efforts include identifying the most common needs students encounter and physically organizing these services at a convenient, single stop facility. UNM incorporates this model into its Enrollment Services One-Stop that affords students a centralized area to address financial aid and registration issues at one office. Several other support services administered by other units are proximate to this facility on the same floor and building.

The virtual support network for UNM students requires vision and investment. This space should provide a vast amount of information to assist students and document usage and results. Previous editions of this site had good intentions but comprehensive strategy, follow through and sustainability have detracted from functionality and effectiveness. We propose a revised vision to utilize this tool to provide immediate resource information for students and those assisting them and to accumulate quantitative data that illuminates the volume and characteristics of challenges faced by UNM students. The page to be deployed below represents a modern look with meaningful terminology.



Lobo Learning Hacks



Find Your Pack



Life Help



Navigating Your Major



Defining Your Career



What the Heck



Campus Map



Parking



Campus Safety



Computers



Rights & Responsibilities



myUNM

The “Life Help” category is an example of how we marshal resources for the large number of possible difficulties students may face that cover many facets of their world. The information currently displayed

is relevant for addressing the needs of our students, but these categories evolve, and resource circumstances change so it is critical to manage this information in a structured manner. Site traffic data should be analyzed, support networks enhanced where needed, information should be updated and look and feel should be kept fresh.

Life Help

Living la vida Lobo

Living la vida Lobo

Living la vida Lobo is having a balance between social and academics. It is important for you as a Lobo to know some resources available to you when you need some help. Below are some resources that might be helpful for you to stay on track while you are at UNM!

- **Empty Kitchen?** Once a month the [LoboRESPECT](#) Advocacy center hosts the [Lobo Food Pantry](#) that is open to all of the UNM community. Come fill up your reusable bags with some great food items provided by Road Runner Food Bank of New Mexico.
- **Need a Housing Option?** Here at the University of New Mexico we believe that living on campus is an integral piece of student engagement and student success. Click here to learn more about [Residence Life and Student Housing](#).
- **Seeking Health and Wellness Resources?** Visit [Student Health & Counseling](#) (SHAC) for a list of services and support for physical, mental, and emotional well-being.
- **Have questions regarding academic records or registration?** Visit the [Registrar's Office](#) for information on semester deadline dates, registration, the [UNM Catalog](#), and more!
- **Figuring out how to get around?** [Parking & Transportation Services](#) has information on parking, maps, shuttle system, and alternative transportation.
- **No bills in your billfold?** UNM has some options for short term loans that might help you out in a last minute need to pay a bill. Check out these websites for when you are financially strapped for cash:
 - a. [DOS- Short Term Loan](#)
 - b. [Study Abroad Short Term Loan](#)
- **Want to roll in the dough?** Have you had a minute lately to sit back and think about the amount of money that is available to students? [Scholarships](#) are the way to supplement some extra funds. Click here for links on [scholarship resources!](#)
- **Need a stress reliever?** Come check out [Recreational Services](#) at Johnson Center. You can use the gym, take a swim, play some basketball, or participate in [intramural sports](#). There are also recreational excursions thru [Getaway Adventures](#).
- **Need an Absence Notification?** Sometimes in life things happen that are unforeseen. If for some reason you find yourself in need of taking a few days off for unforeseen circumstances you can contact the [Dean of Students Office](#) to assist you.
- **Want to learn more about Advocacy, Community, and Support?** [Connect with our Resource Centers](#)



UNM-specific information should continuously be part of the content to maintain the unique aspects of our campus and community. This reinforces to those utilizing the resource that these are not cookie cutter solutions or services and suggested support reflect our local values but will require attention to sustain.

Lobo Learning Hacks

Learning Outside the Classroom

Great Grades/Learning Outside the Classroom

Your first priority at UNM is learning. We have engaging resources that will help you be a more effective learner and enjoy your academic experience at UNM. Whether you like to study alone, in a group, or at weird hours, there is a place and space for you to explore and grow academically.



FOLLOW YOUR PROFESSIONAL PASSIONS

There is a reason you wanted to come to college. To get a good job. To change your community. To think big thoughts. To be around like-minded people. To be an informed citizen. Be strategic in how you stay connected to that goal.

Develop a Routine/Take the time to learn

Get to Know Your Instructors and Advisors

Study Together

Find Your Space/Place

Grow and Become

GPA Calculator

Current GPA Information

Credit Hours Completed:

Current GPA:

Current Semester Classes

Class Name	Credit Hours	Current Grade	Replacement Grade
<input type="text"/>	<input type="text"/>	A+ <input type="text"/>	<input type="checkbox"/>
Cumulative GPA:	<input type="text"/>	<input type="button" value="+ Add Row"/>	
Semester GPA:	<input type="text"/>	<input type="button" value="Calculate"/>	

Student Affairs Reorganization

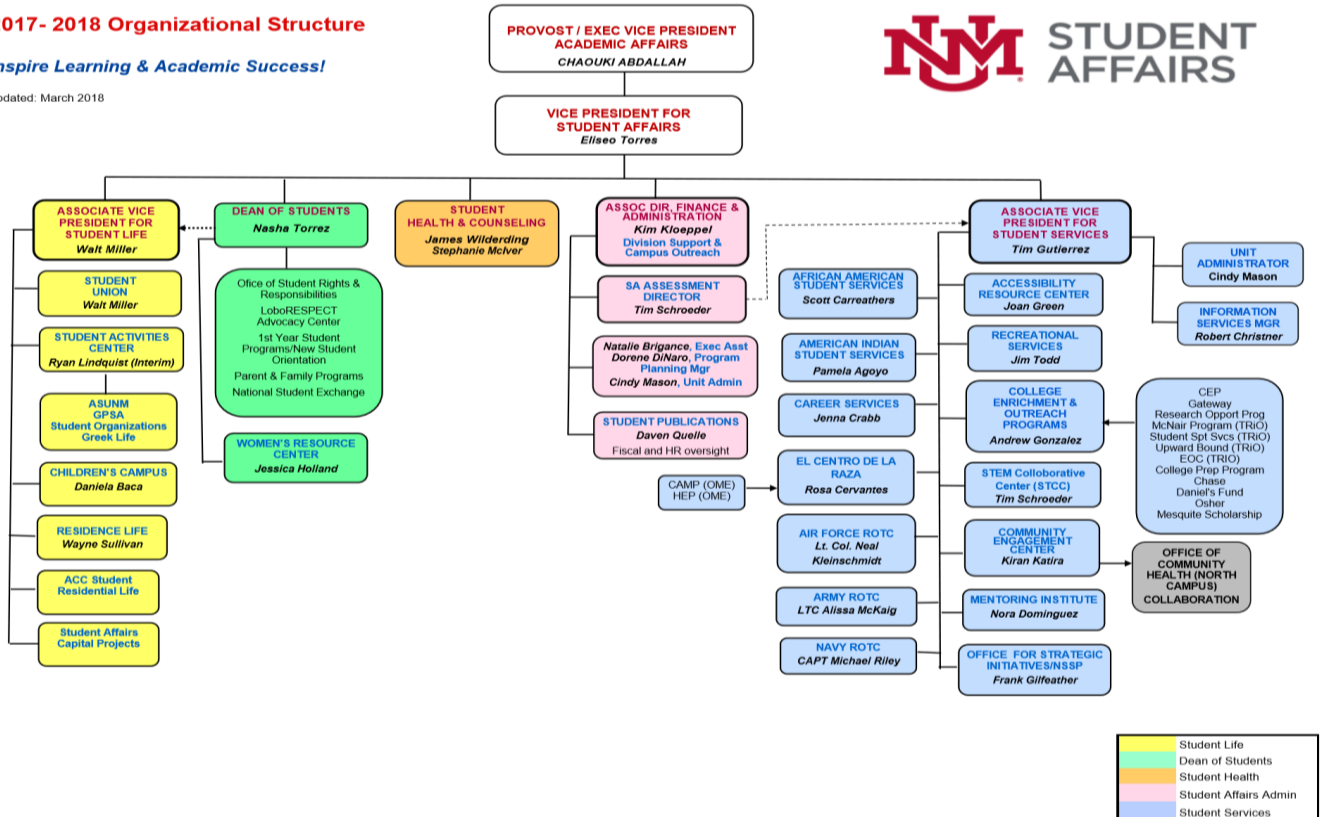
Across higher education campuses of all types and sizes, student affairs, student services and student support divisions have been the mainstay for providing co-curricular experiences for college students including residential programming, Greek life, student activities, cultural enrichment and more. At UNM, the Division of Student Affairs has been a traditional student services unit with nationally recognized leadership and dedicated staff. However, a nationally renowned student affairs professional was asked to evaluate the organizational goals and structure of UNM Student Affairs and provided feedback that we should align our efforts more directly with student learning outcomes.

The current organization does not clearly align with student learning objectives and the broad number of reporting units with similar but disconnected goals perpetuates duplication and isolation. The result is a less than optimum effort to leverage all of the division's resources toward co-curricular experiences that positively influence student learning. The current Student Affairs organization chart is below.

2017- 2018 Organizational Structure

Inspire Learning & Academic Success!

Updated: March 2018



Reorganizing the division into a unit that can easily align itself with Academic Affairs activities, where student learning is centered, could look like a more streamlined structure with less administrative resources, deeper core entities and fewer groups that duplicate services in isolation. Principles to guide this activity should include:

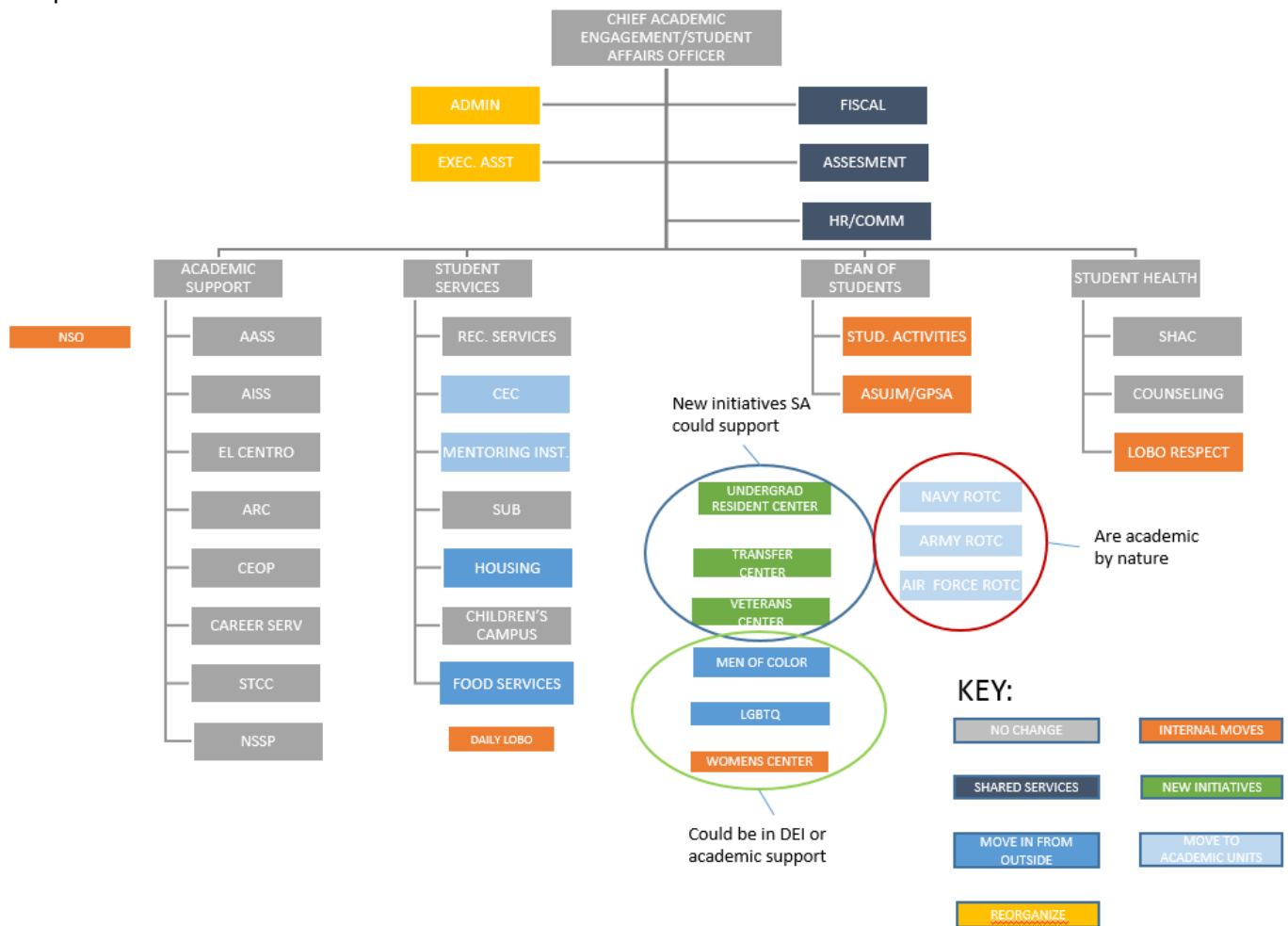
- A goal to re-design the division to meet the changing environment of student needs through a more engaging and holistic learning environment
- Transparent and seamless alignment with academic goals and units across campus where possible to increase the learning opportunities for students
- Continue to provide and support student life and experience on campus
- Alignment of programs/departments with similar missions and operational needs
- Creation of a model to encourage greater opportunity for collaboration and partnership
- Efficiency gains through reduction of administrative costs where possible (leverage resources and utilize shared services)
- Consider department and/or program moves where appropriate to better meet the improvement of student learning mission

Procedurally, the activity should follow a structured mechanism to execute:

- Evaluate purpose, goals and desired mission for the division
- Review current organizational chart
- Establish prioritization of what can be accomplished

- Re-align department/programs to increase impact on student learning through engagement
- Consider areas within the division and outside the division
- Reduce administrative cost and utilize shared services where possible
- Implement an efficient and effective management structure.
- Develop an implementation with timeline

The task force applied these principles to draft how Student Affairs reorganization could look during an initial phase of a review as seen below. There are unanswered items to point out including implications of internal and external changes when units are moved within, to or from the division; best fit for academic oriented programs that could remain within Student Affairs or locate within schools and colleges; and placement of services that have close ties to equity and inclusion communities on and off campus.



Enhanced Scheduling Initiative

Something to be considered in conjunction with co-curricular opportunities that support learning outcomes is the Enhanced Scheduling Initiative (ESI). This model incorporates the Monday-Wednesday, Tuesday-Thursday scheduling pattern for three credit courses instead of the Monday-Wednesday-Friday

meetings in an effort to augment the student learning experience with a wide variety of enhancements to classroom content. This strategy is often casually but erroneously referred to as the four-day week. At UNM, faculty and students are gradually moving in the direction of a predominant two-day schedule for three credit hour courses. This began over ten years ago at the Anderson School of Management and continues with other schools and colleges today where 47% of all sections are on the Tuesday-Thursday schedule compared to 22% on Monday-Wednesday-Friday. Essentially, UNM needs to embrace one model or the other since the hybrid inflicts difficulty for students to attain full schedules due to overlapping patterns that are not synchronous.

Ultimately, ESI strategy works for students and faculty if implemented with accountability and expectations that structured enhancements will take place on Fridays. The concern of appearances that UNM has reverted to a lazier-than-usual pattern of working only four days is invalid because if this perception is based on when classes are being taught then a shrinking minority is holding up the banner of “we have classes on Friday so we’re not slacking.”

Institutions are being drawn to this model for multiple reasons. Some are citing a competitive advantage when promoting full course load availability over a four-day period. The appeal may be so students can work, address family commitments or just have an extra day away from the classroom. The most compelling arguments are colleges and universities who are using the enhancement to increase their value proposition. It is no longer good enough to produce a paper that indicates 120+ hours of credit to demonstrate what a student has learned to make them competitive in the work place. Schools who do this right will be able to point toward student learning outcomes that include internships, enhanced work experience, community engagement, real world project completion, social justice commitment and more that Friday enhancement provided for their students.

[Additional Opportunities](#)

There are several other ideas included in the graphic on page three that the task force discussed in various detail and many additional possibilities that do not get mentioned in this report. Omission or limited attention to an idea does not indicate importance or perception of limited impact – it just means that time constraints did not allow development or introduction of the litany of concepts. Two prominent suggestions in the student learning domain are use of co-requisite instruction for certain classes and introductory UNIV courses as a requirement. Co-requisite instruction is a form of required supplemental instruction or recitation where time is dedicated to smaller group emphasis on content. This strategy has been empirically proven effective and has a record of success at urban institutions serving diverse populations. Required UNIV orientation courses are classes required most often for traditional new students as an introduction to post-secondary education and the individual institution. The most effective models combine discipline-specific content, rigor and general skills for first-year students that will be useful throughout their college experience.

Blended learning, adaptive curriculum, cohort analytics, artificial intelligence and mobile responsiveness will continue to grow in prominence in support of student success. Technology plays a prominent role in these items, but functional application is the key to successful utilization. Learning and curriculum are driven by faculty innovation and UNM has introduced many effective initiatives in the areas of blended learning and adaptive curriculum but must continue to innovate. Cohort analytics apply modern data warehousing capabilities with traditional and newer machine learning techniques to inform strategy based on disconnected data sources. Artificial intelligence is being developed at the teaching assistant level and in advising applications to provide prescriptive, intrusive and developmental student support. It is important to also mention prior learning assessment and competency-based education as areas UNM needs to evaluate to determine where they fit in strategic direction. These are even more critical

when considering the populations UNM hopes to reach in higher numbers such as adult students and military veterans.

Institutional policies that impact students must be evaluated for effectiveness and unintended consequences. The national push for students to take 15 credit hours per term has caught on to every institution, system and state but optimum course load is not necessarily a one-size-fits-all scenario so data-driven benefits and deficiencies should be documented to assess where tweaks or retractions make sense. Affordability should remain a priority for UNM strategic thinking and this requires analysis of a set of metrics that guide quantitative assessment of where segmented student populations are positioned in their ability to pay for a UNM education. Decisions on tuition, fee and other cost of attendance structure and strategy should always have affordability implications heavily weighted. Students today expect outcomes that are different than past generations. This isn't saying they are all the same. Not all students want primarily a high paying job to achieve material wealth and not all want to work toward preservation and sustainability of the planet, but their expectations are higher regardless because of the cost and sacrifice required to successfully complete a higher education credential. Student segments are different particularly in the adult and traditional demographics. Traditional students want the latest technologies and experiences that are life changing. Adult students want convenience and credentials that are life changing. Demographic transformation, evolving workforce demands, continuous engagement and political influences all will dictate emerging support needs to maintain and improve student success outcomes.

Appendix H



Redesigning UNM Task Force 5: Community Engagement Final Report

Task Force Members

**Hakim Bellamy
Doug Brown
Lisa Cacari-Stone
Mark Childs
Mary Clark
Monica Kowal (Chair)
James Malm
Gus Pedrotty
Cindy Rooney**

The Task Force for Community Engagement is grateful to have had this opportunity to convene and discuss ways that UNM can improve its engagement to local communities. This task force was purposefully formed so that there was representation from both UNM's campus and the broader community. We were an eclectic group with representation of alumni, community leaders, branch campuses, administrators, local city government, private business, and faculty whose academic careers have been indelibly shaped and enhanced by the engaged work that they do with local, national and global communities. Despite our varied backgrounds and professions, we are confident that we have conceived several substantive recommendations that can influence UNM's role in the community by deepening existing engagement as well as structuring and incentivizing new engagement opportunities for students, faculty, staff, and community partners.

The Carnegie Foundation's definition of community engagement informed and shaped our discussions and our recommendations. Carnegie defines community engagement as "the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity."

That said, this effort will not be without its challenges. In addition to deep entrenchment in academic ways of knowing and doing, there are significant barriers to engaging with

community. The “town and gown” or “ivory tower” orientation is evident in so much of what we do as an institution. UNM has a long history of focusing change, dedicating resources and growth from within, so the greatest challenge will be for us to reorient our resources and growth outside the institution.

Recommendation No. 1: Create a public face for community engagement at UNM

Create a structure (office, center, institute, what it is called will evolve) that is VISIBLE to the community in its focus on local, regional and statewide engagement be established with the purpose of supporting and, more importantly, SUSTAINING community engagement initiatives through funding, design, implementation, monitoring and tracking (metrics).

That structure should be housed off-campus in a space where communities have better access to its resources (it needs to be community centric). Everyone on the TF felt that it could conceivably be housed on the Innovate ABQ campus and be a large part of that initiative. Perhaps we could call it: *The UNM Center for Community Engagement and Social Innovation?*

This entity could:

- Advocate for long-term funding for CE initiatives
- Create and develop an RAC/TAC process for service-learning engagement courses or research
- Create a sort of “statewide Fulbright” to support faculty who want to do community work around the state on community-identified needs. They could do exchanges with branch campuses or with rural community organizations.
- Design and implement residential programs for students to live and work in neighborhoods or communities on community-identified needs/projects. We could use the Rainforest dorm to create neighborhood programs where students work with local organizations on their economic development or community development projects. Similar programs include:
 - [Sustainable Cities Year program: University of Oregon](#). One- year program that works with all campus departments and the cities around the state of Oregon for a year to work on sustainability. City is the program host. Classes work with different cities. Idea of sustainability binds them together, health, could focus on various themes over time.
 - [Over-the-Rhine Program: Miami University \(Ohio\)](#). Twelve students from a variety of majors—mostly white and from middle class suburban and small town backgrounds—integrated academics with a full immersion experience to live and work in the “school of social life” for a full semester. Students take a full load of courses at the Center for Community Engagement. Architecture and Interior Design majors design and build out spaces for low and moderate income residents. Students from other majors work in various neighborhood institutions that serve the underserved, totaling 24-27 hours per week.

- Work with state policymakers to research and brief them on community-based research and statewide issues (a sort of BBER/CPER model)
- Create partnerships with the City of Albuquerque to create spaces where communities can work together.
- Add “Community Engagement” to UNM front page so that current and future endeavors can be easily located.
- Start to work with the state and national foundations to match faculty experts and students to work on Foundation priorities (instead of always creating our own and expecting foundations to fund us)
- House a “Center for Small Towns” to support engagement in rural New Mexico (interdisciplinary unit comprised of SA+P, Law, Community Medicine, Business, Journalism, History, Geography, etc.)
- *BIG IDEA: I would like to see UNM serve as (1) a model of engagement for all institutions in the state and perhaps a research center for engagement at minority-serving universities (HBCUs, TCUs and HSIs)*

Recommendation No. 2: Collaborate on Engagement with Other New Mexico HE Institutions

Form a Statewide “Grand Challenges Council” with representatives from all NM institutions who are committed to addressing the needs of New Mexico. Universities could identify four or five grand challenges that we could collaborate upon over a five year period. The council could meet regularly to put out publications on what we’re doing and consult with foundations, community and government organizations, corporations and industry to talk about how our work is fulfilling the public mission of the higher education. We could also:

- Collectively join [Campus Compact](#), a coalition of colleges and universities (public, private, research, liberal arts, two and four-year) committed to advancing the public purposes of higher education by deepening their ability to improve community life and to educate students for civic and social responsibility. It would be wise to join the regional affiliate, Campus Compact of the Mountain West, which includes Colorado, Wyoming and other neighboring states.
- Partnerships between UNM and community colleges are also critical i.e. Dine College, NNM college etc.
- Create a statewide Civic Action Plan, a declaration of shared commitment to the public purposes of higher education, and each campus can develop their own Campus Civic Action Plan to realize those purposes more fully.
- Join Campus Compact’s [TRUCEN \(The Research University Civic Engagement Network\)](#). Other TRUCEN member institutions can be found [HERE](#).

Recommendation 3: Leverage & Support Existing CE Programs and Statewide Networks

Use existing structures and initiatives (DEI, TREE Center, Center for Participatory Research, Project ECHO, HEROs, DPAC, iD+Pi, etc.) as conduits for expanding and support community engaged scholarship on around the state.

- The creation of place based research hubs. Place based research hubs enable us to complete our mission to "apply and disseminate new knowledge and creative works." For example, the TREE Center's community engagement efforts are geographically focused in five areas of the state to develop "communities of learning/practice" for conducting engaged scholarship that involves faculty, students, staff and community members from various levels of stakeholders. The same can be said for HEROs, ECHO, etc.
- Create a solid foundation for "transdisciplinary" science/scholarship (something President Stokes emphasized in her last newsletter.)
- DIVERSITY, EQUITY & INCLUSION: As a federally designated "minority serving institution," we must align our activities to accountability to our statewide communities. Community engagement is the functional arm for striving for diversity and assuring alignment between DEI and all other institutional operations, parity and inclusion with the growing demographics of a majority-minority state. This could also be said for GLOBAL EDUCATION.

Recommendation No. 4: Civic/Community Engagement as a Marquis of Student Experience

UNM has an opportunity to be the leader statewide and as an HSI/Research institution to make civic engagement a unique hallmark of what students get when they are here. Not just job skills. Service could be transcribed for students when they graduate. We could merge undergraduate research with community engagement.

Focus should be placed on creating a CONTINUUM OF COMMUNITY ENGAGEMENT opportunities throughout the undergraduate experience.

- RESIDENCE HALLS and LIVING-LEARNING COMMUNITIES: Most agree that not enough is being done with the on-campus residence community and we have an opportunity with the new living requirement for freshmen.
- ENGAGED DEPARTMENT INITIATIVE: (1) Create an initiative in which a CULTURE OF ENGAGEMENT is encouraged departmental performance standards. Provide seed funding for departments that want to endeavor the [Engaged Department Initiative](#). Seed funding could be \$10,000 to any department that shows a critical level of engagement in all of the dimensions of this rubric. Also asking what real world problems are being addressed by your discipline/department. Funding could be used to support research with a clear and strong community partner, service-learning mini-grants for faculty, etc. Annual report should include how the department made an impact on the lives of New Mexicans.

COLLEGE LEVEL LEADERSHIP: to the Associate Deans for Research, could we have an associate dean for engagement in each college that could form a council looking at how community engagement is incorporated in teaching, research, service.

COMMUNICATIONS: Throughout our meetings, the complaints about how UNM communicates within/outside of campus was raised over and over again. Most agree that UCAM needs a SERIOUS revamping. UNM is doing great work, but no one knows it. We don't even know what each other is doing on campus. And our Web presence is pitiful. We spent a lot of \$\$ on this PR campaign but it's not consistently being rolled out. WE COULD PERHAPS CREATE A MAGAZINE/JOURNAL AROUND COMMUNITY ENGAGED RESEARCH AT MINORITY-SERVING INSTITUTIONS.

Appendix I

Redesigning the University of New Mexico Task Force 6: Academic Structure and Organization Draft Report

Alex Lubin, Chair

Task Force 6: Academic Structure and Organization

Task Force Description:

“Like most universities, UNM is discipline-centric in that departments identified by academic disciplines are the fundamental administrative units. While this defines the status quo, it creates both administrative and pedagogical redundancies that consume resources that might otherwise be used to advance UNM’s teaching and research mission. Moreover, it detracts from efforts to move toward more interdisciplinarity in both research and teaching, which is a clear trend in higher education and research-funding institutions. Some universities, most notably Arizona State University, have successfully reduced administrative costs and facilitated interdisciplinary scholarship by combining departments into larger, thematically related schools and programs. The purpose of this task force is to explore, with a focus on UNM’s unique opportunities and strengths, possible reorganization scenarios and to propose a process by which those with a high probability of success will be implemented and assessed.”

Membership:

Alex Lubin, Associate Provost for Faculty Development
Pamela Cheek, Associate Provost for Curriculum and Assessment
Janie Chermack, Economics
Julie Coonrod, Dean, Graduate Studies
Jeremy Edwards, Chemistry
Geraldine Forbes Isais, Dean, School of Architecture and Planning
Melanie Moses, Computer Science
Kymberly Pinder, Dean, College of Fine Arts
Kathy Powers, Political Science
Irene Vasquez, Chair, Chicano/a Studies

Background:

Public universities are currently undergoing discussions about the durability, usefulness, and relevance of colleges and departments, many of which were a product of the post-World War Two, Cold War era public university. This conversation is, in part, a product of economic necessity. Universities are asking whether in a context of diminishing public investment in higher education they can continue to offer all of the programs and majors they once did.

Conversations based in economic necessity often look to program consolidation and elimination as means to ensure financial sustainability (see Capaldi)

The University of New Mexico, while in a seeming enduring financial crisis, is not in the position of needing to consolidate or eliminate programs as a means to ensure sustainability. Rather, a smart investment in interdisciplinary research clusters, while not primarily motivated by economic crisis, may yield a more financially-sustainable model. That said, the primary goal of Task Force 6 is to focus on how we might best encourage, incentivize, and programatize interdisciplinary knowledge production given our somewhat inflexible system of departments and colleges.

Our goal is to imagine policies and infrastructure that can encourage and incentivize new forms of knowledge production. This task required serious discussion about how faculty workload and reviews are conducted, how we “count” and value credit-hour production, how we align faculty research with areas of marked-distinction or “grand challenges”, and how we recruit and hire faculty.

Among the questions this task force seeks to answer are the following:

- Does the current configuration of departments and colleges encourage and enable the sort of interdisciplinary knowledge production required to solve “big questions” as well as to produce the sort of skills required for the future?
- What infrastructure and policy revisions would be required to unleash the creative and intellectual energies of faculty who are rooted to a discipline but are also interdisciplinary or even “un-disciplined” in their approach to knowledge production?
- Can a reimagined academic structure align the necessity to create a distinct general education curriculum at UNM as well as areas of distinction in our research productivity? In other words, can we align the core curriculum and our research priorities such that we identify “grand challenges” where UNM can brand itself as a distinct, “destination” University?
- What is a UNM-approach to reorganization, one that draws on OUR areas of research excellence and concern. We don’t want to merely copy what our regional competitors are doing in the areas of reorganization – we are looking for UNM-specific reorganization.

Ideas and Proposals:

Revisit and adopt many or most of the recommendations of the “2013 Report of the Provost’ Committee on ID Studies” (see Appendix X)

- Offer seed funding to interdisciplinary and cross-college teams of faculty researchers interested in developing an interdisciplinary research cluster that incorporates a

curriculum (including a core course and a graduate course), a time-horizon, and plans for research activity and subsequent research funding proposals.

- The interdisciplinary clusters should align with the OVPR-identified areas of research priorities and areas of distinction at UNM.
 - The Provost office should draft letters of MOU for each faculty participating in the cluster to ensure that promotion and tenure policies value and recognize work in the cluster, as well as to ensure that workload expectations are clearly-defined.
 - A broad-based interdisciplinary committee of faculty should be asked to review and select proposals for interdisciplinary clusters.
- Existing interdisciplinary academic formations such as the Water Resource Program and the Interdisciplinary Film and Digital Media program should be re-examined and jump-started.
 - Graduate Studies should be made a College so that it can more easily house interdisciplinary programs and clusters.
 - An interdisciplinary committee of faculty should be appointed and chaired within Academic Affairs to evaluate and review interdisciplinary programs on a yearly basis. The interdisciplinary committee may eventually be a place to encourage or even supervise interdisciplinary hires. The committee could also play a part in P&T processes for interdisciplinary faculty.
 - Academic Affairs should consider funding cluster hires in departments based on the interdisciplinary clusters it supports. The Provost-level interdisciplinary committee should participate in searches as advisory to departments.
 - Commit to interdisciplinary research/teaching clusters that are focused on “grand challenges” that UNM researchers are especially well-positioned to solve. (see UCLA Grand Challenges in appendix)
 - Imagine policies that privilege innovation over Student Credit Hour (SCH) production – in other words, encourage cross disciplinary work even when it may lead to a reduction in department and college SCH production. Perhaps SCH should follow a faculty member’s home department regardless of where the SCH is produced.

Why Commit to a Redesign in these ways?

- Any redesign of the University should come from faculty seeking a University infrastructure that currently doesn’t exist. In other words, a successful redesign to departments and colleges must align leadership and grassroots faculty innovation – otherwise this redesign will be perceived as a mandated consolidation.

- Creating pathways for faculty to venture beyond their “home” department is likely to foster a broad, University-identity that may improve faculty morale as well as retain some of our most innovative, discipline-crossing faculty.
- Identifying interdisciplinary research clusters and marketing UNM as a place to study and research these “grand challenges” is likely to distinguish our core curriculum from regional competitors, as well as to attract students nationally and internationally interested in careers and research questions related to these challenges.
- Interdisciplinary research clusters and “grand challenges” are likely to change over time. Hence, we recommend a structure with some flexibility, that has a time horizon for serious evaluation and assessment.
- Departments and programs should be encouraged to consider shared, interdisciplinary hires and to propose innovative redesigns when, and if, they choose. In other words, Academic Affairs should signal to departments that it is open to innovative and entrepreneurial proposals to reimagine the boundaries of disciplines.

References

1. Capaldi, Elizabeth D. “Intellectual Transformation and Budgetary Savings Through Academic Reorganization,” *Change*, July/August 2009
2. Popowitz, Michelle and Dorgelo, Cristin, “Report on University-Led Grand Challenges,” UCLA, 2018-02-13, <https://escholarship.org/uc/item/46f121cr>