

**Pathway Goal:** Research, Scholarship, and Creative Activity

**Action Item #**

1-1 (b)

**Report:**

Mid-Year: December 2016

Year-End: April 2017

**Action Item Description:**

Identify opportunities for university-level Centers and Institutes that promote interdisciplinary research and align with institutional strengths, regional needs, and funding priorities. Areas of focus to involve policy revision, structure, and topics.

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**Provide a written overview of the year-long process for your working group.**

Structure

Main goal for this year: Governance, structure, promotion, tenure, Bylaws, and unit incentivization of faculty participating in Institutes.

### 2016-17 Accomplishments

See attached report.

### Recommendations

A staged approach is recommended such that UNLV first implement Model 5 for Themed Institutes and, as traction and momentum are achieved, aspire and move toward Model 3. Model 5 is a themed Institute model where faculty are appointed, promoted, and tenured and reside in Institutes, Institutes are academic units, and may have targeted graduate programs, and space is assigned to the Institute. This model lacks key incentivization to promote strong college-Institute interactions. Despite this limitation, the subcommittee recommends this model as a key step to build toward model 3 and that a top-down approach from the upper administration be used to promoted interactions. Model 3 is a themed Institute model where all space and/or faculty lines are distributed to campus through Institutes, which incentivizes vast collaboration. This model was highly recommended by several external consultants, is suggested by the committee to be a long-term aspirational goal, and is likely to severe a change and too risky to implement short-term.

### 2017-18 Next steps

- **What should the goals / activities be for the subcommittee?**
- **Who should be responsible?**

This subcommittee work should continue forward, with consideration for the following recommendations:

- Decide whether Institutes should be academic units
- Decide upon the structural changes for defining Centers and Institutes proposed in the report
- Decide whether Institutes should be a tenure home for faculty
- Determine resources such as space, hires, and IDC need to be portioned to drive desired outcomes
- Provide a fiscal model for Institute sustainability
- Request a change in UNLV Bylaws, if necessary

**Please review the list below and “X” the appropriate box(es).**

- Potential resources required
- Any reports generated by this working group  
*University Level Institutes and Centers 2016-17 RSC 1-1b*
- Metrics to be used
- No additional reference material

**Any additional information you wish to share.**

**University Level Institutes and Centers (ULIC)  
2017 Committee Top Tier report**

## Executive summary

This year, the University Level Institutes and Centers (ULIC) Top Tier Committee (“Committee”) is charged with reviewing the governance, structure, promotion, tenure, and bylaws regarding Institutes and Centers and proposing new models that encourage strong connections among faculty, their departments and colleges. The Committee recognized the need for further codification of the definition of Centers/Institutes in the NSHE Handbook. Top Tier metrics will likely be driven by the success of Institutes and Centers as observed at other Top Tier institutions [1–4].

Following careful review of the aforementioned materials, review of best practices at other universities, and review of relevant published studies, the Committee proposes three distinct Institute/Center entities: (1) Centers that report to colleges and are the fiscal responsibility of colleges; (2) Institutes that are multidisciplinary and involve expertise from myriad colleges; and, a third type of institute/center structure. To elaborate, in its review, the Committee ascertained the need for two types of Institutes: Umbrella Institutes and Themed Institutes. To further deconstruct these concepts, Umbrella Institutes and Themed Institutes would each, respectively, report to the Office of the Vice President of Research and Economic Development (VPRED) and be the fiscal responsibilities of VPRED. Umbrella Institutes serve many different colleges, but do not have faculty primarily appointed within the Institute, should be considered academic units, and would function much like UNLV’s National Supercomputing Institute. This proposed option is modeled after the Brain Research Institute at UCLA. Themed Institutes are focused on a specific multidisciplinary theme, such as the International Gaming Institute. These Institutes operate in the themed focus area overarching many different colleges, and would have faculty primarily appointed within the Institute.

Each aforementioned Center/Institute has different expectations and requirements for governance, hiring, promotion, tenure and structure of interaction with other campus units. The current Institute model at UNLV poses potentially complicated challenges, elevating the risk level for failure. These challenges and considerations include : (1) lack of a standardized fiscal model that promotes independence and sustainability; (2) lack of a standardized assignment of space, new faculty hires and indirect costs; and (3) the existence of threat to other units due to competition for indirect cost dollars, new faculty positions, GAs and space. The Committee also recognizes that placing Institute-focused researchers in departments may not be consistent with the current direction, mission and strategic plan of units in which the Institute places their academic faculty. Centers, given that most are college-specific, would likely face similar issues, but these issues could be addressed at the college level on a college-by college basis.

The Committee generated criteria and considerations that could potentially contribute to a successful Institute, explored models implemented at other institutions, consulted with experts, reviewed relevant literature, and discussed suggested modifications of these models or proposed novel models. Criteria considered by the committee include strong incentives for faculty, unit and college participation (and ideally collaboration), a model for fiscal sustainability and independence, and strong interactions

with units that fill strategic regional and public needs, thereby bringing value to colleges and units while fulfilling the university's Top Tier missions.

The Committee considered five potential models, each of which is addressed herein. Model 1 is the existing UNLV model. Within this model, faculty are appointed to colleges, but are shared with the university-level Institute. Model 2 is a UCLA Umbrella Institute model, within which space is assigned to the Institute. Model 2 serves as its own academic program, but it does not have its own faculty; rather, Model 2 is comprised of faculty from units, enabling provision and access to high-end instrumentation and the organization of collaborative grants. Model 3 is likened to the UCLA Themed Institute model. Model 3 involves no academic program and faculty for all units are hired into the Institute and shared with colleges. Space can be disseminated through the Institute and the Institute secures external funding and resources central to its theme. Another Themed Institute model (model 4) can be observed at ASU in its Biodesign Institute (which serves as a parent institute with centers of excellence within it). Specifically, Model 4 uses space as an incentive; otherwise they appear to have implemented a model similar to that of UNLV, but we understand that it took 5-7 years to get faculty buy-in. Model 5 has Themed Institutes serving as academic units with a focused Ph.D. program for training graduate students.

<b>Model #</b>	<b>Summary</b>
<b>Model 1</b>	Existing UNLV model where faculty are appointed, promoted, and tenured in Colleges, but faculty and IDC returned from grants are shared with Institutes, and Institutes have their own assigned space. Some new Institutes are encountering problems with this model.
<b>Model 2</b>	Umbrella Institute model where faculty are appointed, promoted, and tenured and reside in Colleges, IDC returned from grants are shared with colleges, and these Institutes have their own assigned space. The committee recommends we continue this model for Umbrella-type Institutes.
<b>Model 3</b>	Themed Institute model where all space and/or faculty lines are distributed to campus through Institutes, which incentivizes vast collaboration. This model was highly recommended by several external consultants, is suggested by the committee to be a long-term aspirational goal, and is likely to require a change and to be risky to implement short-term.
<b>Model 4</b>	Themed Institute model where faculty are appointed, promoted, and tenured and reside in Colleges, may be in multiple Institutes, and these Institutes have their own assigned space. This model has worked well at ASU, but took a long time for faculty to buy-in to this model at ASU.
<b>Model 5</b>	Themed Institute model where faculty are appointed, promoted, and tenured and reside in Institutes, Institutes are academic units, and may have targeted graduate programs, and space is assigned to the Institute. This model lacks key incentivization to promote strong college-Institute interactions. Despite this limitation, The committee recommends this model as a key step to build toward model 3 and that a top-down approach from the upper administration be used to promote interactions.

Approximately 16% of other national institutes sponsor educational programs, grant degrees and have been referred to as Departments-in-Waiting [Mallon & Bunton, Association of American Medical Colleges, 2005]. This model does not serve in direct competition with educational programs of other colleges. Aligned with Model 5, faculty would be appointed, promoted and tenured in the Institute, which overcomes many of the problems associated with Model 1. In support of this general idea, one study indicates that 22% of medical schools and universities have institutes with direct faculty appointments as in Model 5 [Mallon & Bunton, Acad. Med. 2005].

The Committee weighed the advantages and disadvantages of each model. While there does not seem to be a perfect solution, there were some model options that appeared to rise to the top in light of the criteria and considerations. Specifically, when considering the Umbrella Institute, Model 2, a model which is currently implemented to a degree at the National Supercomputing Institute, appears to be working well. The Committee also favored Model 3 for the Themed Institute option, because this model appears to incentivize critical areas, driving collaboration among units and Top Tier metrics, thereby fulfilling most, if not all, criteria under consideration. That said, the Committee did consider whether this Institute option constitutes a shift that is potentially too extreme from that found within UNLV's existing governance. However, Model 5 does not appear to incentivize strong interaction with other units. Whereas the Provost could create a system that penalizes colleges, departments and Institutes that do not work with each other, this is a suboptimal solution.

In conclusion, in the spirit of steady, incremental and mindful movement by the university toward Top Tier, the Committee recommends a staged approach such that UNLV first implement Model 5 for Themed Institutes and, as traction and momentum are achieved, aspire and move toward Model 3. In the following, the Committee provides a section addressing campus and leadership concerns as they relate to each model, including attendant responses that arose from Committee discussion.

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## Committee members

Table 1. Committee members

Name	Title	Unit	Role
Martin Schiller	Executive Director	NV Inst. Personalized Medicine	Chair
Bo Bernhard	Executive Director	International Gaming Inst.	Member
Tara Emmers-Sommer	Associate Dean	Greenspun College of Urban Affairs	Member
Ruben Garcia	Associate Dean	William S. Boyd School of Law	Member
Thomas Hartmann	Interim Director	Radiological Sciences	Member
Joseph Lombardo	Executive Director	National Supercomputing Institute	Member
Stan Smith	Dean	College of Science	Ad hoc Member

## Committee charge

The charge of the ULIC for this academic year is to study the "governance, structure, promotion, tenure, Bylaws, and unit incentivization of faculty, units and colleges to participate in University-level Institutes and Centers."

## Summary of last year's committee material

The "Centers and Institutes" Top Tier Subcommittee convened throughout the 2015-2016 academic year, with a specific focus on the following key question:

What role might Centers and Institute play in a University strategic plan for Top Tier growth?

The 2015-2016 Subcommittee included representation from the VPRED office (Brian Hedlund), the Research Council (John Mercer), as well as several research deans and Center/Institute heads. The then-Dean of the College of Sciences, Timothy Porter, chaired this Subcommittee. The Subcommittee based its recommendations upon study of other model universities (Oregon, Arizona State, Houston, and Central Florida). The Subcommittee provided the following summary recommendations:

1. As a component of the UNLV Top Tier strategic plan, we propose the creation of a new class of "University Research and Innovation" Centers or Institutes that report directly to the office of the Vice President for Research and Economic Development.
2. These new University Research and Innovation Centers or Institutes will be multi-college and multi-disciplinary, and will have "charters" that outline specific objectives and deliverables that align with long-term University objectives.
3. New University Research and Innovation Centers or Institutes will be chartered for a specific period of time, and supported with appropriate and sufficient startup funds during the initial charter.
4. University Research and Innovation Centers or Institutes will be reviewed periodically by the office of the Vice President for Research and Economic Development for timely execution of objectives, goals and deliverables.
5. We recommend a parallel effort to incentivize and support other levels of Centers or Institutes that will operate under the existing NSHE definitions of Centers or Institutes and function within current reporting structures. These levels of Centers or Institutes will also align with University, College or Departmental strategic goals.

The Subcommittee then made further "guidelines and principles" recommendations:

1. University-level Institutes will address issues of major significance to state, national and international priorities and needs.



2. University Institutes must significantly and directly impact the long-term University strategic goal of attaining Top Tier status. For University-level Institutes, this must include the highest priority Top Tier goals for the University.
3. University-level Institutes must be interdisciplinary and multi-college. Institute faculty academic appointments will generally remain within individual colleges, however, faculty will also be officially affiliated with the Institute.
4. To be considered for University-Level, an Institute must submit a viable business plan for development and growth. Institute proposals should demonstrate a strong financial impact, potentially including a self-sustaining model of operation.
5. University-level Institutes will report to the Office of the Vice President for Research and Economic Development.

Next, the Subcommittee offered the following “space considerations” that were deemed to be key to the successful implementation of these recommendations:

1. UNLV must be able to accommodate new or growing University Institutes for 5-6 years, in advance of new construction on campus. Individual College hiring will also need additional laboratory space on or near campus.
2. Identify campus “swing space” where less productive laboratories may be consolidated. Perform needed renovations or upgrades to bring lab swing space online.
3. Establish and fund campus laboratory space renovation “pipeline” – A prioritized, serial stream of new or existing, vacant spaces that may be upgraded into Top Tier laboratory spaces. Perform major infrastructure upgrades (water, hoods, electrical, gasses, HVAC, counters, etc.), possibly leaving final design details to new faculty who will occupy space.
4. Establish means for efficient, low-cost, timely campus renovation effort for 5-6 year lab renovation plan. Do we have the infrastructure to renovate 5-6 labs per year for the next 5 years?

Finally, in considering the unique challenges these entities face, the Subcommittee noted the following:

- During in-person site visits to University of Houston (Vice Chancellor for Research and staff) and Arizona State University (Vice President Knowledge and Enterprise Development) it was emphasized that following the successful approval of a new “University-Level” Institute, a national search for a Director should follow. It was strongly emphasized in both interviews that the selection of the Director was the single most important variable in the ultimate success or failure of these top-level Institute.

- Colleges may view “University” Institutes (reporting to VPR) as net losses for their units. This may be in the form of loss of top faculty, loss of indirect cost returns, loss of direct control, and loss of visibility and prestige. ASU “took 5-7 years for Colleges to become more comfortable with University-Level Institutes.”

Our committee used these foundations as a starting point for discussion on the more specific tasks referenced above.

## Recommended changes to governance standards

In order to implement some of the proposed changes to the governance of Centers and Institutes, some changes to UNLV and NSHE standards are in Appendix Item VII and might be submitted as a proposal for amendment to the Faculty Senate and, after their input, be put forth to a faculty referendum. An alternative approach consistent with the UNLV Bylaws could be direct approval by the President or a member of the Board of Regents as defined in UNLV Bylaws, section 2.3.

The UNLV Bylaws, at Chapter I, section 4.1.1, states that academic faculty are in “colleges, departments, and units.” The UNLV Bylaws do not explicitly indicate what body has the authority, nor do they indicate any procedure for designating academic units. Given Institutes and Centers are involved in teaching and research, and that research training is an educational endeavor, the Committee suggests that some Institutes and Centers be considered Academic Units, if the list of Current Academic Units in Section 3.1 was amended, subject to the established procedures of the Board of Regents, as discussed in UNLV Bylaws Section 2.3.3.

Considering the lack of clarity of the aforementioned issue in the UNLV Bylaws, the Committee references the UNLV policy published on the UNLV website (<https://www.unlv.edu/about/policies/bylaws>), which describes how unit bylaws are created. According to the UNLV website, “unit bylaws are established by the faculty, subject to the approval of the president” and “Unit bylaws enter into effect when ratified by the faculty of the unit and approved by the president or his/her delegate.” Thus, it appears that the Themed Institute will need to write and approve bylaws, that then become effective when approved by the University President.

In conclusion, it appears possible that the UNLV Bylaws create a process for Institutes and Centers becoming an academic unit, thereby having license to appoint, promote, and tenure faculty. Such latitude (or restriction) would come at the level of bylaw approval.

## Existing Centers and Institutes

Fifty-three active UNLV Centers, Institutes Museums, and Laboratories have been approved by the Board of Regents to provide research, specialized scholarly activity, education, and or public service in furtherance of interdisciplinary study, outreach, and acquisition of extramural funding (from <https://www.unlv.edu/research/active-centers>, 2/27/17). A list is shown in Appendix Item I.

## Summary of the current UNLV model and policy

In order to formalize these new structures into policy, the VPRED presented the Centers, Institutes, Museums and Laboratories (CIML) Policy to the University Policy Committee for revision in Fall 2016. The goal of the policy was to remove some of the more technical details from the 2008 policy and to formalize those into procedures for the CIML Council to follow and implement. The CIML Council, comprised of directors of Centers and Institutes, receives and reviews the annual CIML and provides ratings that determine the frequency of reporting.

UNLV's policy on Centers and Institutes dates to September 2004, but a revision is currently pending, which will be discussed below. The original policy detailed two types of entities - "Centers" and "Institutes." Centers were intended to be completely within a college and Institutes were thought to extend across more than one college. In practice, however, this distinction has not been strictly maintained. Meanwhile, the NSHE handbook makes no distinctions between Institutes and Centers.

Over the last several years, some Institutes have been identified as core to UNLV's strategic mission and organized under the auspices of the Office of the Vice President for Research and Economic Development. These examples include the International Gaming Institute, the Nevada Institute for Personalized Medicine, and the National Supercomputing Institute. These models called for a new terminology to denote that these Institutes fulfilled a particular vision for UNLV's strategic Top Tier goals. The new policy thus adds the category of "University Institutes" to identify these entities.

## Consultation for this report

In preparation of this report, Timothy Porter, Chair of last year's ULIC Subcommittee, presented their recommendations to our Committee. We also received a document from Carolyn Yucha, Interim Vice President of Research and Economic Development, describing her interviews with VPRs from three peer institutions, San Diego State University, University of New Hampshire, and North Dakota State University. Provost Diane Chase briefed us on the evolution of these issues at the University of Central Florida. The Committee also received consults from several high-impact external consultants: Chris Evans from the Brain Research Institute at UCLA, Patrick Burk, VP of Emerging Products at Myriad Genetics, and Jerome Rotter, who has operated two Themed Institutes at UCLA.

In addition to the aforementioned, the Committee met at least monthly to discuss models, assign research and prepare this report. The meetings that took place and topics are in Appendix Item II.

## Recommendation of defining and codifying Institute and Centers

Mallon and Bunton suggest that Institutes and Centers (and the differences between them) be better defined [Mallon & Bunton, Association of American Medical Colleges, 2005]. The Committee examined the UNLV model for Institutes and Centers and cross

compared the current UNLV model to alternative model structures in place at other institutions (using the Brain Research Institute [BRI] at UCLA as one model guide, for instance)—specifically, Umbrella Institutes and Themed Institutes. The models were cross compared as they related to the Institute’s operations, the Institute’s relationship with/to and placement within the university structure and, finally, the monetary aspects and flow of the Institute/Center. To begin, UNLV’s current definitions of Research Center, Institute and Service Center can be found at <https://www.unlv.edu/sites/default/files/24/CenterInstitutePolicy-FINALREVISED.pdf>.

Specifically, page 3 of the above-mentioned document delineates among the entities and is reported below:

**Research Center or Institute:** An organizational unit focusing primarily on research and scholarly activity where services are typically unrelated to internal administrative operations.

**Center:** An organization that furthers research among a team of faculty/staff researchers and usually involves formal collaborations in one department, school, or college. It also provides a formalized link between the academic community and the professional community and is intended to facilitate efforts to obtain extramural funding in specific areas.

**Institute:** An Institute is a multi-college, multi-disciplinary unit that addresses issues of major significance to state, national, and international priorities and needs. Institutes will have charters that outline specific objectives and deliverables that align with the long-term highest priority Top Tier goals for the University. Institutes typically report to the VPRED. The committee suggests that there are two types of Institutes – umbrella and themed which, but their nature require different governance models.

**Service Center:** An organizational unit focusing primarily on training, client services, performing contracted work with external agencies, and public service activities. A service Center provides an outreach link between the academic community and the local community in its area(s) of focus.

The terms “Institute” and “Center” have often been used interchangeably in the literature and in UNLV practice; yet, the literature suggests expanding upon the current CIML Council distinctions. [Mallon & Bunton, Association of American Medical Colleges, 2005]. The view of the ULIC regarding the delineation between Institute and Centers is that Centers are likely nested in colleges and report to the college dean, whereas Institutes are more university-wide and report to the VPRED. More micro delineation occurs when considering Umbrella versus Themed Institutes, with Themed Institute having additional autonomy and focus. Alternatively, Umbrella Institutes will likely share ties with both the Institute and a college, with a stronger college connection regarding operational aspects than the Themed Institute (see Tables 3 and 4 for expanded deconstruction of operations, governance, and income among various Institute and Center types).

As indicated in the Tables 3 and 4 below, a variety of considerations were weighed and discussed among the Committee members, including each aspect's role and importance in the structure and workings of the Institutes and Centers.

## Challenges & needs of Institutes with UNLV model

Three new Institutes started in the past three years -- the International Gaming Institute, the Nevada Institute of Personalized Medicine, and the National Supercomputing Institute -- have incurred mixed valence experiences. To that end, it is important to identify and understand the incurred challenges such that we can work toward optimal solutions. Several of the important needs and problems faced by new Institutes are listed in Table 2.

Table 2. Needs and problems faced by new Institutes

#	Needs and challenges faced by new Institutes
1	Institutes need to have a financial model for sustainability. Institutional support needs to be clear from the outset.
2	There is no standardized way that space is assigned to Institutes.
3	There is no procedure in place to handle defection of faculty into or out of the Institute, which could cause problems. However, the policy on joint appointments could be adapted.
4	Startup must support a critical mass of investigators for sustainability.
5	Institutes are viewed as competitors for faculty lines, space, indirect costs, and other resources.
6	Colleges and units do not get enough from Institutes to make collaboration or involvement worth their while, so the interest level is low. While double counting accomplishments helps, this appears to not be enough.
7	Biggest risk factor to success is loss of the Director; thus, a succession plan is needed.
8	Distribution of salary savings on grants should be clear.
9	Colleges will not prioritize assignment of graduate assistants or new hires to the Institute.
10	Hiring into Themed Institutes is not consistent with mission of other units and is not consistent with the description of a unit's role in hiring in the UNLV bylaws.
11	FTEs, when lost, should be returned back to Institute, not remain with college.
12	Hiring, promotion, and tenure in departments is a problem with faculty that spend their time and primary mission in an Institute. Institutes need to be able to hire to the mission.
13	Institutes need to be able to hire high quality well-funded faculty without barriers.

The aforementioned challenges are important to recognize as they can likely assist in creating a set of criteria for consideration in selecting among new or refined models for implementation. The Committee also recognizes the additional factor that Centers and

Institutes are not well integrated into all of the other academic and service units on campus, except in the case where there is a regular interaction. Some of UNLV's functions that interact with the work of Centers and Institutes are:

- UNLV News
- Development office for donations
- Reporting on website
- GAs, RAs, DGRAs
- Provost resource allocation to deans
- Deans' Council
- UNLV Foundation
- Faculty Senate
- Visibility in VPR office
- Graduate College/Council
- OSP dedicated person
- Signage
- Space Committee
- University Policy Committee
- Awards committees
- Merit Committees
- Research Council
- Admission (graduate)
- Faculty Senate Bylaws Committee
- Master Plan Committee
- Top Tier Committee
- Council on Centers, Institutes, Museums and Laboratories
- Associate Deans for Research

### Criteria for new model

The criteria for evaluating various implemented and new models under consideration are shown in Table 3.

Table 3. Criteria for considering Institute and Center models.

Criteria	Centers	Themed Institutes	Umbrella Institutes
Should have strong incentives for faculty, department and colleges participation	X	X	X
Should have a model for fiscal sustainability and independence		X	X
Should support Top Tier strategic plan	X	X	X
Should have strong interaction with departments, colleges, and Institute	X	X	X
Faculty and staff should be co-located to create opportunities for collisions	X	X	X
Should be aligned with regional and public need	X	X	X
Should be able to hire to the mission with the best-of-the-best without barriers	X	X	X
Should bring value to colleges and units	X	X	X

## Considerations for models

Table 4 illustrates a detailed list of considerations for Institutes and Centers and how these pertain to the models under consideration. The criteria fit into three general categories: operations, university, income-related. For operations, we considered recruiting, preparing a business plan, faculty appointments, promotion, and tenure, governance, assignment of state lines, changes in faculty affiliation, and the need of associate directors. The main university related issues are reporting lines, services efficiency, incentivization for units and colleges to work with Institutes, salary gaps, representation, space assignment, and support. We also considered sources of income to grow and sustain Institutes. Nationally, Institutes are initiated with at least \$5 to 10 million dollars, depending on the focus area, might take 5-10 years to build, have measurable strategic impacts, and reach a level of sustainability. Income to support Institutes comes from philanthropy, grants (IDC return and salary savings), clinical and other services, and tuition. Nationally, 63% of national Institutes have some federal grant funding [Mallon & Bunton, Association of American Medical Colleges, 2005]. The following are also likely to be considerations for models:

### **Should Themed Institutes appoint, promote and tenure faculty?**

Institutes can be responsible for hiring faculty specific to their mission, potentially geared toward a specific grant or contract. This suggestion/practice is currently inconsistent with UNLV Bylaws if Institute faculty are hired into departments (section 15). If Themed Institutes become the academic unit home of faculty, then the Institute would need bylaws to govern hiring, promotion and tenure. If departments remain the academic unit home, then the department is responsible for promotion and tenure. However, as experienced over the last year, and reported in the literature, this can be challenging [2,5].

At Central Florida University, Institutes that were academic units and were successful wanted to become colleges, and those Institutes that were not successful, wanted to be absorbed by colleges.

This problem could be dealt with at UNLV in at least three different ways. First, the upper administration controls such changes and does not need to grant them unless they better serve the Top Tier mission. Second, if a financial exigency is declared under NSHE Code 1.3.3 with regard to a unit, the Themed Institute can be absorbed into other colleges. Third, if an Institute is highly successful and wants to become a college, then it speaks to success of the Top Tier effort and the upper administration can decide what is best for UNLV.

### **Will Themed Institutes and Centers be in competition for resources with departments and colleges?**

The university ultimately needs to decide how best to allocate resources to serve its goals. UNLV has decided to use some of these resources to support Institutes because UNLV lags behind other research-oriented institutions in developing an Institute and Center oriented model and literature supports the success of this model [Mallon, Acad. Med. 2006]. Nevertheless, there is an opportunity and expectation that there will be a strong synergy that advances the Top Tier mission from departments and Institutes working together as observed at other peer universities.

### **Are Umbrella Institutes actually Service Centers?**

There are several key distinctions between Umbrella Institutes and Service Centers. Umbrella Institutes, for example, will apply for and secure academic-oriented research grants. These Institutes also collaborate with other academic units and do not necessarily exercise a fee-for-service arrangement, as the relationships are geared more toward collaborations.

### **Are Themed Institute hires inconsistent with the strategic plan or mission of departments?**

In some cases, yes. This is why the Committee recommends that Themed Institutes be their own academic home, where new hires do not fit into the strategic plan or mission of any existing department.

### **Are there are significant advantages for colleges and departments to work with a Themed Institute?**

Advisors to this Committee have suggested that Institutes need to provide something substantial to collaborating units, such as faculty lines or space. Some units in the past have suggested that a portion of the indirect costs would not be enough. Space and faculty FTEs are included in our recommended model. Units can also double count grants received and publications for shared faculty. Institutes also provide access to specialized



equipment and help to organize large grants [Mallon & Bunton, Acad. Med. 2005]. Themed Institutes cannot become academic units because they are not involved in teaching.

### How can faculty become affiliated with or move to a Themed Institute or Center?

Affiliation with an Institute should be controlled at the level of the Institute and also approved by the college deans. Movement of faculty between campus units has the potential to negatively impact middle management relationships. Movement of faculty should be negotiated and only upon mutual agreement of the units involved. Affiliation with a Center should be controlled at the college level.

### Can faculty retreat to departments if they do not continue in a Themed Institute?

This would be possible if the department was willing and able to have them. This is why the committee suggests that Themed Institutes become academic homes for faculty. The Institute will be more familiar with the work of the faculty and have more interest in their success.

Table 4. Models for Institutes and Centers

#### ULIC MODELS FOR INSTITUTES AND CENTERS

Item	Model 1	Model 2	Model 3	Model 4	Model 5
	UNLV Institute	Umbrella Institutes	Themed Institute	Themed Institute ASU	Themed Institute Academic
Operations Recruiting	Institute	Department	Institute	?	yes
Operations Business plan (3 year; 6 yr milestone)	in process	yes	yes	yes	yes
Operations Faculty Appointments	College/Dept	College	Institute	?	Institute
Operations Faculty Promotion	College/Dept	College	Institute	?	Institute
Operations - Faculty tenure	College/Dept	College	Institute	?	Institute
Operations - Bylaws - governing doc (4-6 years)	in process	Institute	Institute	?	Institute
Operations - State lines (department)	Yes	College	Institute	?	Institute
Operations - Change of faculty affiliation	unknown	College	Institute	?	Institute
Operations - Continuity - Assoc. Director	?	yes	yes	?	yes
University - Unit reports to?		VPR/DOI	VPR/DOI	?	VPR/DOI
University - Services efficiency (turn back clock)	bad	bad	bad	bad	bad
University - Incentivization of unit faculty	teaching/credit	SSOG,Credit,SSOG,Credit	SSOG,Credit	?	SSOG,Credit
University - Incentivization of colleges	teaching/credit	SSOG,Credit,SSOG,Credit	SSOG,Credit	?	SSOG,Credit
University - Institute representation fo new faculty, space,	some	yes	yes	yes	yes
University - Space	yes	yes	yes	?	
University - Governance	no	need	need	?	need
University - GA, RA, Scholarships	through Depts.	GA-college,R GA,RA		?	GA, RA
University - Support	yes	yes	yes	yes	yes
Income - Grant IDC return		15% 15%, 25% co		40% ?	>40%
Income - Philanthropy	yes	yes	yes	yes	yes
Income - Tuition	no	no	yes	?	yes
Income - Other (State, Univ, Private, Clinical)	State	yes	yes	yes	yes
Income - Salary savings on grants (SSOG)	college/provost	VPR/Institut	VPR/Institute	50%	yes
Income- Finanacial model (\$10M for 6 years) -RCM?	partially	yes	yes	yes	yes

## Recommendations for Centers

The Committee supports the existing model for Centers overseen by the Council on Centers, Institutes, Museums and Laboratories (“the Council”) where Centers are within colleges. The colleges are responsible for the Centers and performance assessment and maintenance of status is by the Council.

## Recommendations for Themed Institutes

As a component of the UNLV TopTier strategic plan, we propose the creation of a new class of “Themed Institutes” that report directly to the Office of the Vice President for Research and Economic Development. These have previously been referred to as University-Level Institutes. These new Institutes will focus heavily on research and innovation, will be multi-college and multi- or trans-disciplinary, and will have “charters” that outline specific objectives and deliverables that align with long-term university objectives. New Themed Institutes will be chartered for a specific period of time, and supported with appropriate and sufficient startup funds during the initial charter. These will be reviewed periodically by the Council for timely execution of objectives, goals, and deliverables.

Importantly, these Themed Institutes will address issues of major significance to state, national and international priorities and needs. They must significantly and directly impact the long-term university strategic goal of attaining Top Tier status. To be considered for this status, the Institute must submit a viable business plan for development and growth. Institute proposals should demonstrate a strong financial impact, including a self-sustaining model of operation.

Themed Institutes would have dedicated faculty working on research, and, thus, are considered academic units. State lines and faculty appointments could/would be handled at the Themed Institute level, which should also handle promotion and tenure decisions. This is similar to the model used at The Pennsylvania State University where primary appointments are in Institutes (recall that 22% of national Institutes in a multi-university study had primary appointments in the Institute[Mallon & Bunton, Association of American Medical Colleges, 2006]). Research assistants and graduate assistants, meanwhile, would also be assigned directly to the Themed Institute.

In previous in-person site visits to University of Houston and Arizona State University, it was emphasized that the selection of the Director was the single most important variable in the ultimate success or failure of these top-level Institutes. This is supported by the literature[5]. Further, it was strongly suggested that these individuals must possess national – and, ideally, international – recognition and status.

Consultations during the site visits also emphasized the important consideration that colleges might view these Institutes as net losses for their units. This might present itself in the form of loss of top faculty, loss of indirect cost returns, loss of direct control, and loss of visibility and prestige. At ASU, we were told, it “took 5-7 years for colleges to become more comfortable with University-Level Institutes” – and, as such, immediate efforts to

collaborate and develop “win-win” relationships are needed. This might take the form of, for instance, considering the achievements of faculty affiliated with both a college and a Themed Institute in university-level metrics for both the college and the Themed Institute. To illustrate: a professor who secures a grant might have that grant “counted” in both his/her affiliated college as well as the Themed Institute. Of course, this consideration would occur solely for within-university calculations of productivity – and never for the purposes of “reporting upwards” to state- or national-level entities. Also in this collaborative spirit, indirect cost returns and salary savings on grants should be negotiated between colleges and Themed Institutes.

It is expected that given the importance of these Themed Institutes, startup support and university space would be provided. We realize that space considerations represent an especially difficult challenge, and suggest identifying campus “swing space” where less productive laboratories may be consolidated. Additionally, the university might establish and fund a campus laboratory space renovation “pipeline” – which would detail a prioritized, serial stream of new or existing, vacant spaces that may be upgraded into top-tier laboratory spaces.

## Recommendation for Umbrella Institutes

The Umbrella Institute is an active partner in multidisciplinary campus-wide programs, fostering scientific synergy and collaboration at a campus level. The Umbrella Institute constituents include any one individual or group from the campus that requires special (and often unique) resources that cannot be easily or affordably duplicated. Additionally, the Umbrella Institute often provides unique staff expertise to advance a specific research requirement that is not available to the constituent. Often referred to as a “Library Model,” because it provides services and expertise across the entire campus, the Umbrella Institute has a very specific, but extensive mission, to serve as a campus-wide resource that collaborates with the research community.

One such example of this model is UNLV’s National Supercomputing Institute, established in 1991, which serves as the high-performance computing facility at UNLV. As an “Umbrella Institute,” UNLV’s National Supercomputing Institute currently has hundreds of active users from numerous colleges across campus.

Sharing and not duplicating expensive resources and/or staff is critical to the future of UNLV’s research mission and the aspired Top Tier status. Umbrella Institutes will provide core resources and expertise at a reduced cost by sharing expensive resources. The committee recognizes that most national Institutes follow this model rather than a Themed Institute [Mallon & Bunton, Acad. Med. 2006]. We also note that there might be a better name than Umbrella Institute, as this has a different meaning in limited use [Mallon & Bunton, Association of American Medical Colleges, 2006]. We do not believe our recommendations are dependent on particular terminology.

## Sustainability

A particularly important challenge for Centers and Institutes is that the model chosen is amenable to long-term sustainability. For Centers, this will be college specific-- and would remain subject to review by the Council on Centers, Institutes, Museums, and Labs. Institutes should be assessed in a similar manner. One concern for Institutes is the current split of indirect cost recovery, with 4% going to each the library, 4% to the Provost’s office, 4% to the President’s office, 48% to the VPR office, and 40% to the college. When faculty are appointed to work in Institutes but have a primary appointment in colleges, Institutes receive 15% of the IDC, and sometimes more if negotiated with the college to receive a larger portion of the 40% shared by Institutes and colleges. The Committee suggests that this split be reviewed to consider other Institutes nationally where the indirect cost return to Institutes at some other universities ranges from 50% to 100% (see Appendix Item III. Without revisiting this current split, many (if not most) UNLV Institutes will likely be unsustainable.

One consideration that might be more aligned with these recommendations at UNLV is the Responsibility Center Management (RCM) model. Many Research 1 universities have adopted this management model (Appendix Item IV). The basics of this model are that

revenues from tuition, indirect cost return, and other income sources are credited to the unit (department, school, Institute, center, or college) that generates them. Units also share expenses for system-wide and local support units. A governing body reviews the cost pools and metrics are based on best practices and are uniform and verifiable. Lastly, the upper administration provides startup funding only for unit startups and then the units are in control of their destiny and will succeed or fail, based upon their performance and market conditions.

RCM appears to offer the following advantages: 1) it reduces politics in favor of increased accountability and transparency; 2) it enables schools and colleges access to data, more control, and more flexibility in decisions over resource utilization; 3) it encourages focus on long-range strategic planning; and, 4) it encourages use of limited resources and decision-making to maximize return-on-investment.

## Assessment

Institutes and Centers are currently required to report to the CIML Council either annually, every two years, or every three years, depending on the Council's rating of "Under Achieving", "Achieving" and "Highly Achieving." These reports include information about CIML personnel, activities and budgetary information. Thus, not all CIML file reports each year. The CIML Council is developing a short, annual form that can be submitted electronically, and then a longer form can be submitted at one, two or three year intervals. The Committee recommends that this assessment continue with no suggested changes.

## The Next Steps

The committee respectfully suggested that a next step for the UNLV leadership is to consider the following matters, each of which are central to the ongoing operational capacity of Institutes and Centers:

- Decide whether Institutes should be academic units;
- Decide upon the structural changes for defining Centers and Institutes proposed in this document;
- Decide whether Institutes should be a tenure home for faculty;
- Determine resources such as space, hires, and IDC need to be partitioned to drive desired outcomes;
- Provide a fiscal model for Institute sustainability;
- Request a change in UNLV Bylaws, if necessary.

In support of these recommendations, Mallon and Benton suggest that the upper administration articulate policies for the distribution of indirect costs to both departments, colleges, and Institutes based on an agreed-upon formula that supports sustainability [Mallon & Benton, Acad. Med. 2006]. Furthermore, resources such as space, hires, and IDC need to be partitioned between colleges and institutes to incentivize interactions, joint hiring, and joint grant applications. The committee also suggests that when deciding to

initiate or support a new Institute or Center that it considers how philanthropy, hard and soft funding, and commercial contracts and funding contribute to a long term sustainability model for the Institutes and Centers. The Committee awaits response to this Report with affected stakeholders.

# Appendix

## I. List of existing Institutes and Centers at UNLV

- I. School of Allied Health Sciences
  - A. UNLV Nutrition Center
  
- II. Lee Business School
  - A. Center for Business and Economic Research
  - B. Center for Entrepreneurship
  - C. Lied Institute for Real Estate Studies
  
- III. School of Community Health Sciences
  - A. American Indian Research and Education Center
  - B. Center for Health Disparities Research
  - C. Center for Health Information Analysis
  - D. Nevada Institute for Children's Research and Policy
  
- IV. School of Dental Medicine
  - A. Interdisciplinary Center for Aging Research and Education
  
- V. College of Education
  - A. Center for Autism Spectrum Disorders
  - B. Center for Mathematics, Science, and Engineering Education
  - C. Center for Multicultural Education
  - D. Center for Research, Evaluation, and Assessment
  - E. Gayle A. Zeiter Literacy Development Center
  
- VI. Division of Educational Outreach
  - A. Cannon Survey Center
  - B. Public Lands Institute
  
- VII. Howard R. Hughes College of Engineering
  - A. Applied Geophysics Center
  - B. Center for Energy Materials Interaction Technology Initiative of Nevada
  - C. Center for Energy Research
  - D. Center for Information Technology and Algorithms
  - E. Center for Materials and Structures
  - F. Center for Mechanical and Environmental Systems Technology
  - G. Nevada Center for Advanced Computational Methods
  - H. Nevada Nanotechnology Center
  - I. Transportation Research Center
  
- VIII. College of Fine Arts
  - A. Arnold Shaw Popular Music Research Center
  - B. Marjorie Barrick Museum
  - C. William F. Harrah College of Hotel Administration

- D. Center for Professional and Leadership Studies
- IX. William S. Boyd School of Law
  - A. Saltman Center for Conflict Resolution
- X. College of Liberal Arts
  - A. Beverly Rogers, Carol C. Harter Black Mountain Institute
  - B. Center for Democratic Culture
  - C. Center for Migration, Demography, and Population Studies
  - D. Women's Research Institute of Nevada
- XI. University Libraries
  - A. Center for Gaming Research
  - B. Oral History Research Center
- XII. UNLV School of Medicine
  - A. UNLV Ackerman Center for Autism and Neurodevelopment Solutions
- XIII. School of Nursing
  - A. Center for Biobehavioral Interdisciplinary Science
- XIV. Office of the President
  - A. The Lincy Institute
- XV. Division of Research and Economic Development
  - A. Harry Reid Center
  - B. International Gaming Institute
  - C. Center for Gaming Innovation
  - D. National Supercomputing Institute
  - E. Nevada Institute of Personalized Medicine
  - F. Nevada Small Business Development Center
- XVI. College of Sciences
  - A. Center for Applied Mathematics and Statistics
  - B. Center for Atmospheric and Oceanic Sciences
  - C. Center for Urban Horticulture and Water Conservation
  - D. High Pressure Science and Engineering Center
- XVII. Division of Student Affairs
  - A. Center for Academic Enrichment and Outreach
  - B. Jean Nidetch Women's Center
- XVIII. Greenspun College of Urban Affairs
  - A. Center for Crime and Justice Policy
  - B. Center for Individual, Couple and Family Counseling
  - C. MGM Resorts Public Policy Institute



## II. Summary of ULIC Meetings

Date	Agenda focus
7/25/16	Identify criteria and which item to focus on for current year
9/9/16	Brainstorming discussion
10/7/16	Review and compare institute models, consider model, review last years committee report
11/4/16	Formalize and rank order Institute and Center models. Mid-year report to Top Tier committee
12/9/16	Review criteria for choosing a model. Discussed advantages and disadvantages of models including UNLV model. Need for umbrella and themed institutes
2/13/16	Discussion of Models 3 and 5
2/17/16	Discussion with Provost
3/7/17	Discussed first draft of ULIC report. Discussed models 3 and 5 and centers
4/1/17	Meeting to discuss report draft
4/7/17	Meeting to finalize report
4/24/17	Present report to Top Tier committee

## III. Institute Indirect Costs rates at other institutions

Institution	Institute	F&A rate
University of Idaho	Institute for bioinformatics and evolutionar	50%
VirginiaTechnology University	Bioinformatics	100%
University of Houston	All institutes	75%
University of Colorado, Boulder	Biofrontiers	88%
University of Illinois, Urbana	Applied Research Institute	50%
University of Michigan	all institutes	100%
Univesity of New Hampshire	all institutes	66%
Texas A&M University	all institutes	50%
University of Minnessota	all institutes	50%
University of Cincinatti	Research Institute	50%
<b>Average</b>		<b>68%</b>

## IV. Responsibility Center Management for UNLV

The Responsibility Center Management (RCM) Model is a financial model created at the University of Pennsylvania in the early 1970s. It has since been adopted at many public universities including the University of Toronto, University of Southern California, Indiana University, University of Michigan, Iowa State University, University of Minnesota, Syracuse, University of Florida, Drexel, Harvard, Johns Hopkins, Duke, University of New Hampshire, Rutgers University etc.

## V. Proposed amendment proposal for UNLV Bylaws

The Top Tier University Level Centers and Institutes Committee recommends the following changes to the UNLV Bylaws.

Chapter I, Section 3: The UNLV organization should be updated to reflect the current list of that have been approved and terminated by the Board of Regents, even though section 2.3.3 states that the updates are effective upon approval by the Board of Regents. It should also be updated to include the School of Medicine.

Chapter I, Section 3 delineates units as Academic or Administrative. There are some inconsistencies in this regard. Even though the Harry Reid Center was involved in research and this is an academic endeavor, it is listed as an administrative unit in Chapter 1, section 3. A list of Centers and Institutes approved by the Board of Regents is provided as Appendix Item 1 of this report.

## VI. References

- 1 Mallon WT & Bunton SA (2005) Research centers and institutes in U.S. medical schools: a descriptive analysis. *Acad Med* **80**, 1005–1011.
- 2 Mallon WT (2006) The benefits and challenges of research centers and institutes in academic medicine: findings from six universities and their medical schools. *Acad Med* **81**, 502–512.
- 3 Mallon WT & Bunton SA (2005) *Characteristics of research centers and institutes at U.S. medical schools and universities* Association of American Medical Colleges, Washington, D.C.
- 4 Mallon WT (2006) The financial management of research centers and institutes at U.S. medical schools: findings from six institutions. *Acad Med* **81**, 513–519.
- 5 Stalher GJ & Tash W. (1994) Centers and institutes in the research university: Issues, problems, and prospects. *Journal of Higher Education* **65**, 540–554.