

Pathway Goal: Research, Scholarship, and Creative Activity
Action Item # 1-4

Report: Mid-Year: December 2017

Action Item Description:

Develop plans and strategies for increasing competitive grant applications and entrepreneurial funding opportunities.

Submitted By:

Name	Department
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Working Group Members:

Name	Department
Kwang Kim	Mechanical Engineering
Chris Stream	Public Policy & Leadership

Process and Timeline: Provide a brief summary of the year-long process for your working group.

- Continue with recommendations.
- Develop specific plan for junior faculty mentorship, training, workshops of junior faculty.
- Coordinate with VPRED and Graduate College on workshops and resources.

Describe what has been accomplished so far this year.

- We (Kim and Stream) were assigned to serve on this sub-committee in Fall 2017 regarding the overarching subject of “develop plans and strategies for increasing grant proposal activities.” It is our understanding that one of the Top Tier initiatives is for UNLV to achieve AT LEAST \$120 M/YEAR of “SPONSORED” RESEARCH EXPENDITURE by 2025.
- We have looked at some data on the status of research grants/contracts activities of UNLV and others.
- The research expenditure was \$62.8M in FY2016 (up \$14.7M from FY 2015).
- Based upon the data and findings on the status of research grants/contracts activities of UNLV, we lay out the following somewhat naive recommendations:
 1. UNLV may need to provide incoming TT faculty with “early enough training and performance-expectation” for effective teaching, nationally competitive research, UNLV specific-operation tools, and etc.
 2. And/or (since recruitment, training, and retention of top-notch TT faculty can be expensive and time-consuming), UNLV may want to consider hiring of “somewhat established” mid-career associate and/or full professors?
 3. And/or UNLV may want to take a hard look at institutional strengths with an eye firmly focused on the external environment?

Identify next steps.

1. We will produce a reporting document that contains findings and recommendations to the chair of this committee (Dr. Mary Croughan, VPRED).
2. We noted that a good faculty development program started this year is the “VPRED FRMP Junior-Senior Research Mentor Pair” program run by Dr. Liam Frink of the VPRED office, (<https://www.unlv.edu/provost/idr/mentoring-groups>; shown in section Related Programs).
3. It is our understanding that VPRED plans to develop more workshops, programs, and courses on grant writing. We may ask the VPRED office to provide the TT committee with outcome/output assessment or a short report after 2-3 years of execution (2019 or 2020).

What will your final product be at the end of the year? Such as, what metrics which will be used to assess your progress/achievement, will a report be generated, etc?

A short power-point presentation material similar to the attachment.

You may have reference material to attach to this report. Select from the list.

No additional reference material

OR

Any material generated by this working group (if completed at this time)

End of Mid-Year Report
Remainder of the report will be completed in May.

Year-End

This portion is to be completed in May.

2017-18 Accomplishments.

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SWOT Analysis: Determine the strengths, weakness, opportunities, and threats presented in the data.

Strength(s)	
Weakness(es)	
Opportunity(ies)	
Threat(s)	

2018-19 recommendations and next steps

- **What does the SWOT analysis reveal?**
- **What should the goals / activities be for the subcommittee?**
- **Who should be responsible?**

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You may have reference material to attach to this report. Select from the list.

<input type="checkbox"/> No additional reference material
OR
<input type="checkbox"/> Any material generated by this working group

Additional information to include (optional).

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End of Report

Research, Scholarship, and Creative Activity (RSCA)

(FY 2018: Top Tier Subcommittee RSC 1-4 Assignment)

“Develop plans & strategies for increasing competitive grant applications & entrepreneurial funding opportunities”

A short “Mid-Year” report prepared by:

Kwang J. Kim, Faculty of Mechanical Engineering, Howard R. Hugh College of Engineering
Chris Stream, Faculty of School of Public Policy and Leadership, Greenspun College of Urban Affairs

In consultation with:

Office of Sponsored Project, UNLV

James Thomson, Special Advisor to the President for Regional Development, UNLV

Submitted to:

Mary Croughan, Chairs of RSCA

And

Kyle Kaalberg, Special Projects Director

(November 27, 2017)

UNLV



RSCA Top Tier RSC 1-4 Subcommittee Assignment

DEVELOP PLANS & STRATEGIES FOR INCREASING COMPETITIVE GRANT APPLICATIONS & ENTREPRENEURIAL FUNDING OPPORTUNITIES!!

Some Background Information

- Probably the most important goal of the Top Tier initiative is for UNLV to achieve **AT LEAST \$120 M/YEAR of RESEARCH EXPENDITURE** by 2025⁽ⁱ⁾.
- **Where UNLV is NOW?**

\$62.8M in FY2016
\$42.0M in FY2015

TOP TIER RESEARCH METRICS

Research Expenditures
 \$120,000,000/year by 2025
 \$62,825,000 FY2016
 \$42,000,000 FY2015

Research Staff
 (non-fac. res. staff & postdocs)
 120 by 2025
 77 res. staff in FY2016
 75 res. staff in FY2015

Research Space
 474,162 sq. ft. by 2025
 226,847 sq. ft. FY2016
 223,709 sq. ft. FY2015

Space Efficiency
 \$300/sq. ft. by 2025
 \$281/sq. ft. FY2016
 \$192/sq. ft. FY2015

Patent Applications
 75 filed during FY2025
 58 filed in FY2017
 64 filed in FY2016

Doctoral Graduates
 At least 200/year by AY 2024-25
 154 (AY 2016-17)
 166 (AY 2015-16)

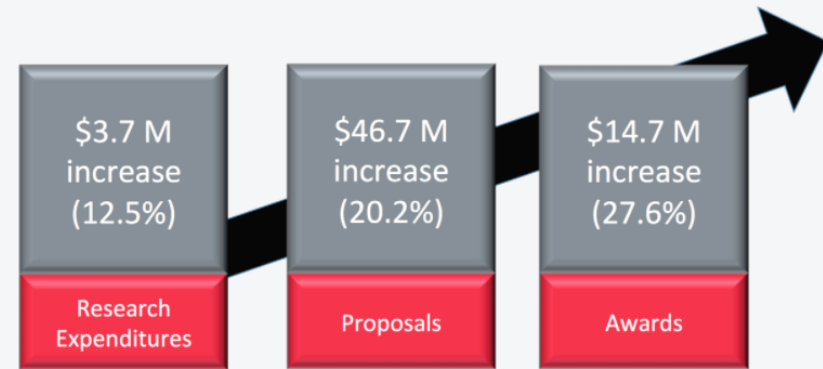
—●— 2025 Goal
 —●— Current
 - - - - - Previous

Last Updated 08/15/2017

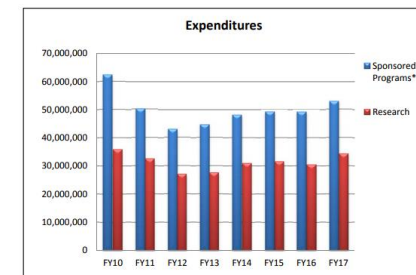
Research and Economic Development

Sponsored Programs

FY16 to FY17



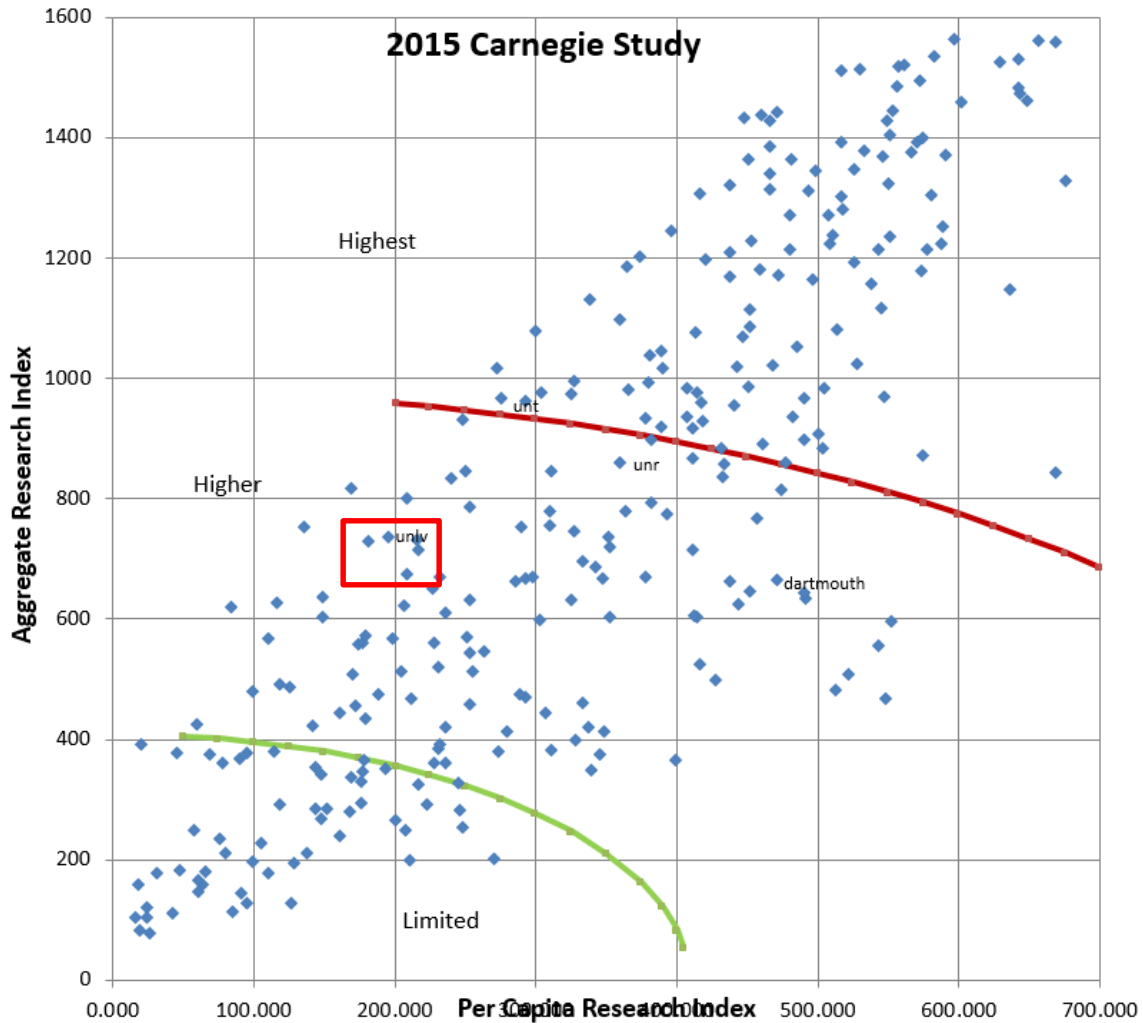
<https://www.unlv.edu/toptier/progress/rsc-progress>



Source: <https://www.unlv.edu/toptier/progress/rsc-progress>

2015 Carnegie Study

(credit to Dr. Jim Thompson to reproduce the data)



**University of Nevada, Las Vegas
Instructional Faculty
By Rank, Fall 2011 - Fall 2016**

Rank	Fall 2011		Fall 2012		Fall 2013		Fall 2014		Fall 2015		Fall 2016	
	#	%	#	%	#	%	#	%	#	%	#	%
Professor	257	32.9	277	33.4	285	32.7	296	32.2	307	31.2	325	33.8
Associate Professor	275	35.3	288	34.7	284	32.6	286	31.2	288	29.3	248	25.8
Assistant Professor	171	21.9	176	21.2	225	25.8	253	27.6	298	30.3	299	31.1
Instructor/Lecturer	77	9.9	89	10.7	77	8.8	83	9.0	90	9.2	89	9.3
Total¹	780	100	830	100	871	100	918	100	983	100	961	100

¹ Total includes tenured, tenure-track, and non-tenure track instructional faculty.

Sources: Offices of Academic Resources and Human Resources

Some Comparison Data: NSF* and BGU

Number of NSF CAREER awards “directly” received by UNLV

- Total 11 awards (5 left UNLV and 1 retiring from UNLV): Luke** (1998, the first?), Bae* (now at RPI), Ahmad, Fu* (currently CCNY), Rennels, Sapochak* (at NSF/DMR Division Director), Lee, van Breukelen, Piechota* (currently at Chapman), Hedlund, and Snook* (currently Sheffield UK) (*left UNLV; **retiring/retired from UNLV) – None after 2009.
- The NSF/CAREER program is designed for TT faculty to build their academic career via research/education (5 yr. program)

Zip Code	Institution	# of Active NSF Grants	# of Active CAREER Awards	Notes	Best Global Universities (BGU) Ranking***
84112	University of Utah	293	33	PAC 12	129
80523	Colorado State University	248	15	Mountain West	250
96822	University of Hawaii	226	7	Mountain West	370
87131	University of New Mexico	176	18	Mountain West	237
77204	University of Houston	172	23	UNLV peer institution?	382
97403	University of Oregon**	173	9	PAC 12	267
32816	University of Central Florida	139	12	UNLV peer institution?	509
84322	Utah State University	98	13	Mountain West	617
89557	University of Nevada, Reno (UNR)	91	5	Mountain West	713
83725	Boise State University	80	8	Mountain West	NR
92182	San Diego State University	76	2	Mountain West	526
82071	University of Wyoming	73	7	Mountain West	604
83844	University of Idaho	60	4	Mountain West	704
89154	UNLV	43	0	Mountain West	748
95192	San Jose State University	40	2	Mountain West/only 2 doctoral programs (UG focus)	NR
93740	California State University, Fresno	17	1	Mountain West/only 3 doctoral programs (UG focus)	NR

**NSF fastlane data (11/26/2017)

*No engineering program



National Science Foundation
WHERE DISCOVERIES BEGIN



RSCA Top Tier Subcommittee RSC 1-4 Assignment

Develop plans & strategies for increasing competitive grant applications & entrepreneurial funding opportunities

Short and Naive Summary and Recommendation to the RSCA Committee Chair (Dr. Mary Croughan)

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