

**Competitive Faculty Salaries at
Research Universities**
Benefit all New Mexicans

LEGISLATIVE FINANCE COMMITTEE
HIGHER EDUCATION SUBCOMMITTEE HEARING

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Research universities –
through faculty work –
drive economic development in
New Mexico



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ROI

There are few investments with a greater return than federally funded basic scientific research.

The federally funded university research that led to the companies highlighted here yielded many other returns along the way. This research advanced our knowledge; primed America's innovation pipeline; educated future scientists, engineers and doctors; created direct jobs and equipment purchases; and helped build a skilled workforce. Research, and all the benefits that flow from it, help keep America globally competitive.

KNOWLEDGE IS GAINED

DISCOVERIES ARE MADE

JOBS ARE CREATED

FUTURE EMPLOYEES ARE TRAINED

NEW COMPANIES EMERGE

LOCAL COMMUNITIES THRIVE

INDUSTRY BENEFITS

FEDERAL GOVERNMENT INVESTMENT

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266 of approx. 4,000 U.S. colleges and universities (less than 7%) operate at R1 or R2 research level

New Mexico has 3 of these!
UNM (R1), NMSU (R2), NM Tech (R2)

Together they bring nearly **half a billion in external revenue** into New Mexico **each year**, through research support awarded to faculty (this in in addition to federal financial aid)

<https://research.nmsu.edu/files/documents/NMSUResearchSummary.pdf>

<https://news.unm.edu/news/statewide-economic-impact-report-quantifies-unms-economic-impact-in-2020>

*Carnegie Foundation research university designations:
R1 (very high research activity), and R2 (high research activity)*

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Research university contracts and grants – obtained by faculty – ***directly benefit hundreds of New Mexicans***

- External grant revenue creates **well paying staff jobs** for work on research projects, *in addition to jobs related to the teaching mission*
- External grant revenue is spent on **New Mexico vendors and services** to support research projects

Sen. Daniel Patrick Moynihan is credited with saying, "the way to create a great city is to create a great university and wait 200 years." The evidence of the role universities play in generating economic growth continues to grow.



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Research university contracts and grants ***indirectly benefit all New Mexicans –*** the multiplier effect of research

- New businesses are created by licensing faculty research discoveries
 - *NMSU's Arrowhead*
 - *UNM's Rainforest*
 - *Tech's Office of Innovation*
- Businesses are attracted by access to a college-educated workforce
- College-educated workers earn and spend more

Half of the economic growth in the U.S. since World War II can be traced back to discoveries at research universities



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**Maintaining –
and growing –
New Mexico’s economic development
ecosystem requires competitive
faculty salaries and robust research
support**



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Academic Program Cost Drivers

- Intense competition for the PhD-credentialed faculty required for research grants and to teach graduate degrees
- Intense salary pressure from the private sector
 - *Currently of particular concern in nursing, engineering, and accounting*
- Accreditation and licensing standards which mandate costly teaching methods such as hands-on, or experiential learning
- Accreditation standard which mandate low faculty: student, or tenured: non-tenured credential ratios
- Laboratory and other costly equipment technology, which also require maintenance contracts and specialized staff support
- Licensure requirements which require clinical placements and increased administrative overhead to administer (tracking and reporting)

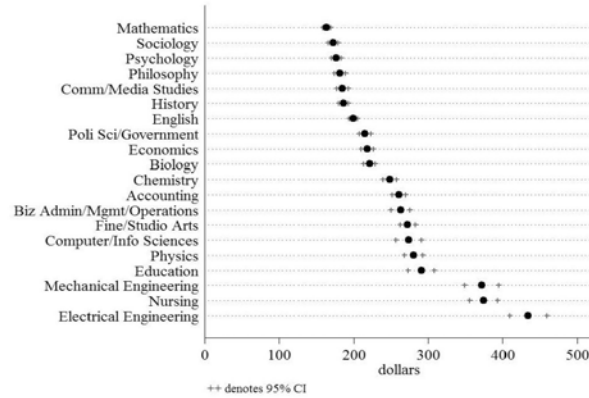


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**National Bureau of Economic Research
Working Paper 25314 (Nov. 2018)
Why is Math Cheaper than English?
*Understanding Cost Differences in Higher Education***

Figure 2. Average Instructional Cost by Field



**Uncompetitive faculty salaries at
research universities can hinder
New Mexico's economic
opportunities and students'
socio-economic mobility**

**Uncompetitive salaries make it
difficult or impossible to
recruit and retain top faculty
performers in their fields**



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**Significant start up funds are
required up front – facilities,
equipment, computing capacity,
graduate assistants – to support
junior faculty until they can
capture external funds for their work**



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Uncompetitive Faculty Salaries lead to . . .

The same challenges that the community colleges and comprehensive universities face --

- **Recruitment** problems
- **Retention** problems due to both low salaries and low start up packages
- **Salary compression and inversion** by rank when new revenue for cost of living or merit increases is not forthcoming, i.e., 'Loyalty Tax'
 - a faculty member hired in 2008 most likely started at a lower base salary than someone in the same field who started in 2012
- **Risk to Program Quality.** If support for delivering quality academic programs erodes over time, program quality can decrease and the risk of loss of accredited status increases



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Uncompetitive Faculty Salaries lead to . . .

- **Increased teaching workloads** without additional compensation
- Increased teaching workload also **decreases time for research**
- **Overreliance on temporary faculty.** Our preference is to hire and support permanent faculty
- **Poor morale** and workplace climate
- **Risk for claims of inequity** or even discrimination when salary inversion occurs



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Uncompetitive Faculty Salaries lead to . . .

Research universities face additional challenges . . .

- ROI losses for both the university and New Mexico from faculty attrition are on a much greater scale

Investment to bring a junior faculty to peak productivity takes longer and costs much more at research universities

By some estimates, it can take \$1,000,000, or more, to bring a junior faculty to tenured status and peak productivity levels at a research university



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Uncompetitive Faculty Salaries lead to . . .

- **Poaching** of both our best students and our best faculty
 - especially by UTEP, Texas Tech, ASU, U Arizona, Texas A&M, U Texas, Colorado St, U Colorado (all R1s)
- Reputational damage to the university and state, further exacerbating **brain drain**
- All result in **lost opportunity for New Mexico** in the future
- **Instructional quality** can erode as well



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**Competitive research university
faculty salaries *Vary by Discipline*
and are determined by a
*National – not local – Market***



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Market Benchmarks for Competitive Research University Faculty Salaries

- Accounting tenured professor
\$ 210,578 (R1) \$ 158,232 (R2)
- Computer Science tenured professor
\$ 148,378 (R1) \$ 125,664 (R2)
- Nursing tenured professor
\$ 134,370 (R1) \$ 106,329 (R2)
- Performing Arts tenured professor
\$ 79,762 (R1) \$ 79,136 (R2)

Benchmarks calculated from FY20-21 faculty salary data from 44 R1, and 55 R2, public research universities, excluding California and the Northeast, and discounted for Las Cruces/El Paso cost of living; obtained under license from College and University Professionals Association (CUPA-HR)



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Market Benchmarks for Competitive Research University Faculty Salaries

- Accounting non-tenured entry level
\$ 144,186 (R1) \$ 114,474 (R2)
- Computer Science non-tenured entry level
\$ 81,061 (R1) \$ 70,192 (R2)
- Nursing non-tenured entry level
\$ 65,547 (R1) \$ 59,056 (R2)
- Performing Arts non-tenured entry level
\$ 46,609 (R1) \$ 44,356 (R2)

Benchmarks calculated from FY20-21 faculty salary data from 44 R1, and 55 R2, public research universities, excluding California and the Northeast, and discounted for Las Cruces/El Paso cost of living; obtained under license from College and University Professionals Association (CUPA-HR)

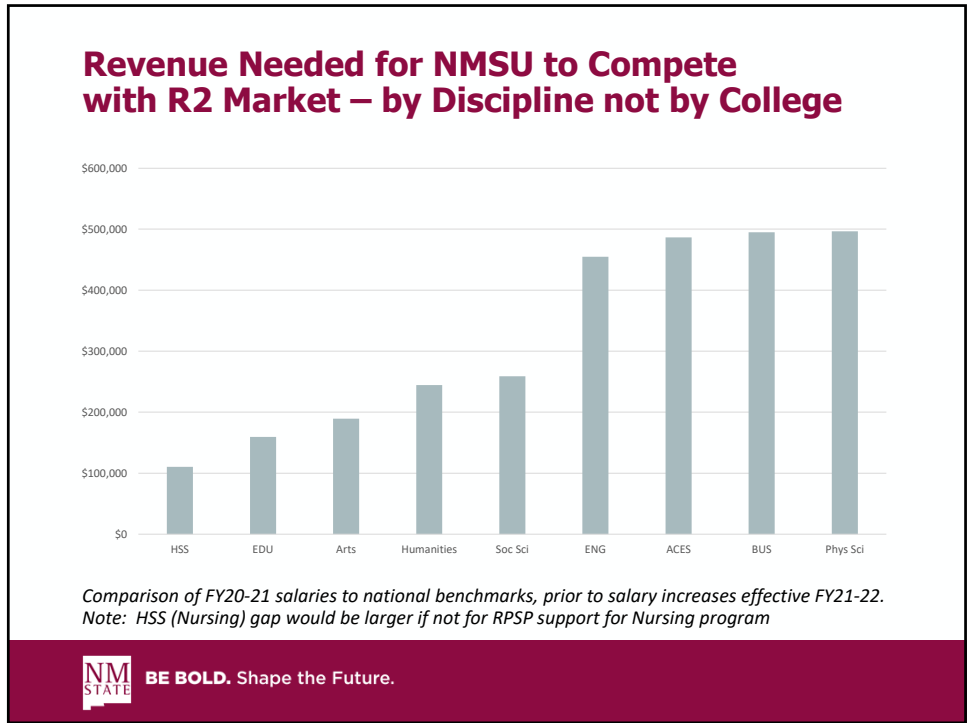


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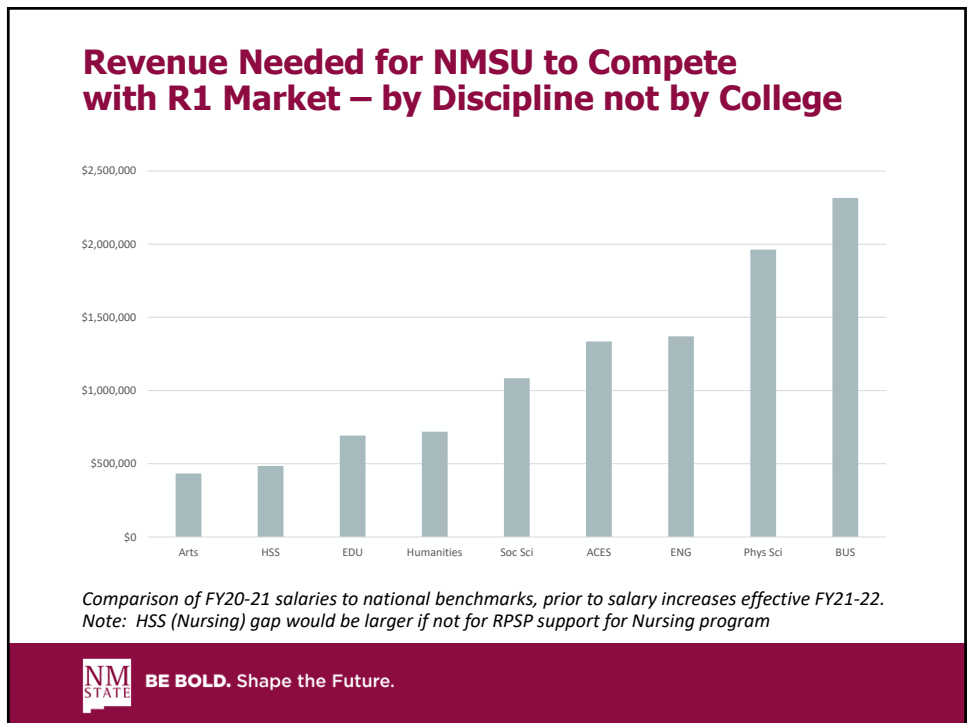
Case Study: Current Faculty Salary Rates at New Mexico State



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NMSU Tenured Faculty Retention Challenges in the Past Ten Years

- It takes an enormous amount of work, time and cost for a faculty member to become one of the top experts in their field
 - It can 10+ years of study and training, after the bachelor’s degree, to become qualified for a faculty appointment at a research university
- Successful faculty at New Mexico research universities are constantly recruited by other universities that can pay more and provide more research support



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NMSU Junior Faculty Retention Challenges in the Past Ten Years

Only 66% of tenure track faculty hired were still working in FY20-21

- 61% of those hired FY10-11
- 36% of those hired FY11-12
- 50% of those hired FY12-13
- 54% of those hired FY13-14
- 55% of those hired FY14-15
- 48% of those hired FY15-16
- 80% of those hired FY16-17
- 86% of those hired FY17-18
- 96% of those hired FY18-19
- 100% of those hired FY19-20

Total junior hires during this 10-year time period: 324; number who left: 214



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NMSU Senior Faculty Retention Challenges in Past Few Years

When our most highly productive faculty start leaving they take our investment in their career development, their research staff, and their grants with them

Arts & Sciences College	10 faculty left
	22 retention packages
Engineering	6 faculty left
	1 retention package



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Case Study: One NMSU Professor Who is Constantly Recruited

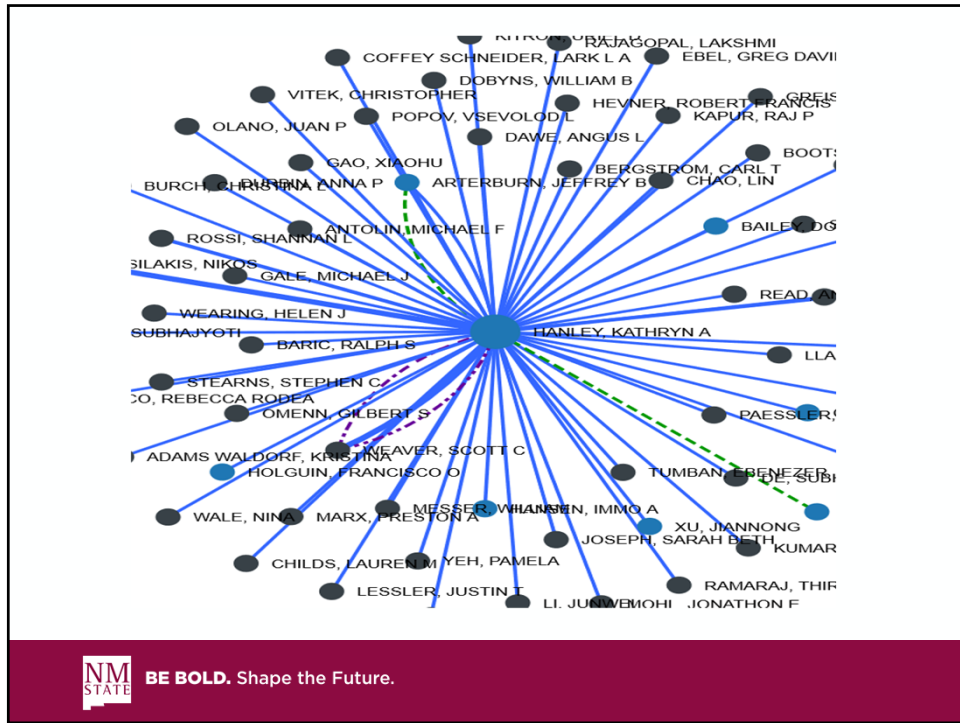
- The next two slides show --
 - The network of collaborators with whom this internationally recognized virologist works
 - The internationally recognized contributions she has made in her field, including receiving \$3.695 million in NIH grants

These are the faculty New Mexico is most at risk of losing

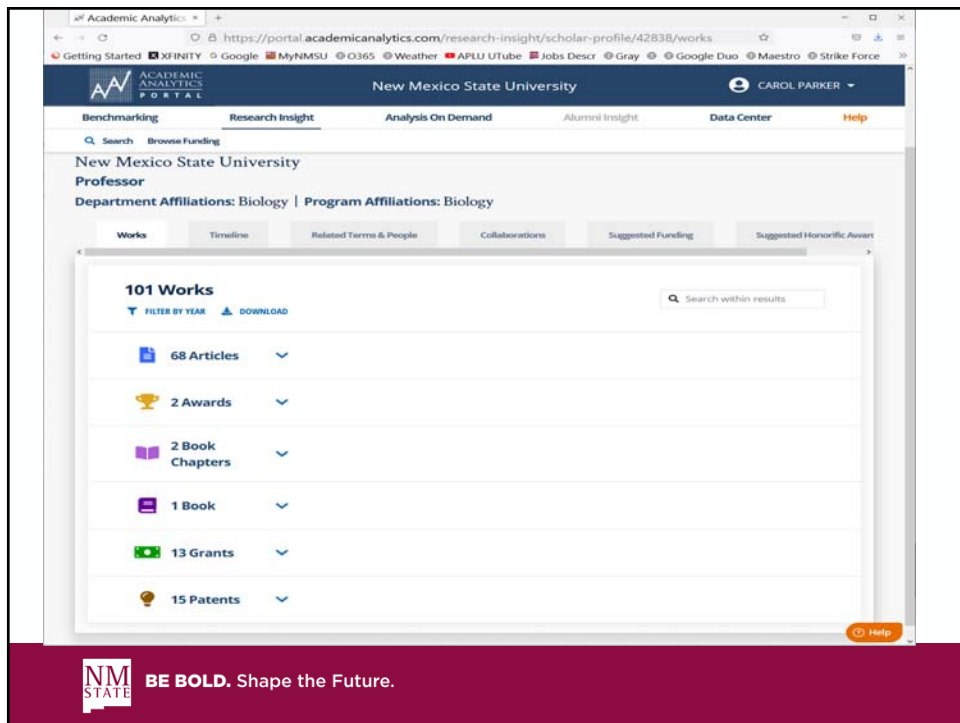


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Current Compensation Shortfalls including fringe benefits (updated 9.23.2021)

• UNM HSC	\$16,000,000
• UNM	\$14,000,000
• NMSU	\$14,000,000
• NM Tech	\$ 4,500,000
TOTAL	\$48,500,000



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Contact Information

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