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## 2014, 2015, & 2016 National Science Foundation (NSF) Rankings by Total R&D Expenditures

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# UNLV | THE LINCY INSTITUTE & BROOKINGS MOUNTAIN WEST

## 2014, 2015, & 2016 NATIONAL SCIENCE FOUNDATION (NSF) RANKINGS BY TOTAL R&D EXPENDITURES

Higher Education Fact Sheet No. 5 | August 2019

Prepared by: Ashley C. LeClair, William E. Brown, Jr., and Caitlin J. Saladino

### PURPOSE:

This Fact Sheet presents NSF data for ten individual research universities in addition to the University of Nevada, Las Vegas (UNLV) and the University of Nevada, Reno (UNR) for the years 2014-2016. The Fact Sheet compares the NSF funding received by 10 individual research universities to the combined funding received by UNLV and UNR.

For the years 2014 and 2015, the combined UNLV and UNR funding remained below that of all 10 individual research universities. With the launch of UNLV's Top Tier (Carnegie R1) campaign - a plan quickly copied by UNR at the insistence of the chancellor of the Nevada System of Higher Education - Nevada's research universities began the long overdue process of improving NSF and other federal agency research funding.<sup>1</sup> By 2016, the combined NSF funding of UNLV and UNR exceeded that of three individual universities: North Dakota State University, the University of Alaska, and New Mexico State University.

In 2018, UNLV became the first academic research university in Nevada to achieve R1 status. Days later, with an expanded set of qualifications, UNR also joined the list. Nevada is now home to two R1 research universities, yet as this table illustrates, there is a significant gap in NSF research production in the Silver State. UNLV's launch of the UNLV School of Medicine in 2017 and additional graduate program expansion could help alleviate this gap and contribute increased economic development through patents, business startups, and public-private partnerships. UNR, through research advances in green technology and other energy-related activities can also contribute to greater economic development in Nevada.

### WHAT IS NSF?

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense."<sup>2</sup> NSF provides the tools necessary for basic research and empowers people to create transformative knowledge. This type of support is a primary driver of the U.S. economy, enhances the nation's security, and advances knowledge to sustain global leadership "NSF is the funding source for approximately 27 percent of the total federal budget for basic research conducted at U.S. colleges and universities."<sup>3</sup>

### KEY TAKEAWAYS:

1. In the Table, the 2014 and 2015 combined totals for UNLV and UNR total less than the individual R&D expenditures for the ten universities listed.
2. In 2016, the combined UNLV and UNR R&D expenditures exceed three universities on the list: North Dakota State University, the University of Alaska, and New Mexico State University.
3. From 2014 to 2016, UNR advanced from the 155th ranked university to the 152nd ranked university and UNLV improved from the 210th ranked university to the 177th ranked university.
4. Seven institutions improved their rank from 2014 to 2016. UNLV (+33) achieved the largest improvement in ranking followed by the University of Central Florida (+14), Mississippi State University (+5), Colorado State University (+4), Oregon State University (+3), UNR (+3) and Utah State University (+1).

<sup>1</sup> Damore, David F., and Robert E. Lang. 2019. "The Road to Carnegie R1 for the University of Nevada, Las Vegas." Education Series, No. 7. The Lincy Institute

<sup>2</sup> NSF, <https://nsf.gov/about/glance.jsp>

<sup>3</sup> Ibid; In many fields such as mathematics, computer science and the social sciences, NSF is the major source of federal backing.

The table displays the change in total research and development expenditures of twelve research universities by rank between 2014 and 2016. Selected institutions represent comparable peer state universities in the United States. Individual ranks for Nevada institutions, UNLV and UNR, are shown as a combined state total for research and development expenditures to illustrate the disparity between the total for the State of Nevada, and the other individual research universities. The “Rank” column shows the university’s national R&D ranking based on total dollars expended in research and development among all U.S. universities.

**Table: 2014, 2015, & 2016 NATIONAL SCIENCE FOUNDATION (NSF) TOTAL R&D EXPENDITURES, IN RANK ORDER BY TOTAL R&D EXPENDITURE PER YEAR**

2014			2015			2016		
INSTITUTION	RANK	TOTAL R&D EXPENDITURES	INSTITUTION	RANK	TOTAL R&D EXPENDITURES	INSTITUTION	RANK	TOTAL R&D EXPENDITURES
University of Arizona	33	\$588,088,000	University of Arizona	34	\$606,219,000	University of Arizona	38	\$604,464,000
Colorado State University	75	\$307,978,000	Colorado State University	73	\$317,219,000	Colorado State University	71	\$331,862,000
Oregon State University	90	\$230,963,000	Oregon State University	86	\$245,317,000	Oregon State University	87	\$254,275,000
Mississippi State University	98	\$209,729,000	Mississippi State University	94	\$226,359,000	University of Central Florida	91	\$242,318,000
University of Central Florida	105	\$185,555,000	University of Central Florida	99	\$215,519,000	Mississippi State University	93	\$239,446,000
Kansas State University	106	\$184,945,000	Kansas State University	106	\$188,721,000	Kansas State University	107	\$193,254,000
Utah State University	115	\$164,892,000	Utah State University	110	\$175,353,000	Utah State University	114	\$180,590,000
University of Alaska	121	\$155,769,000	North Dakota State University	120	\$153,542,000	<b>UNR</b>	<b>152</b>	<b>\$168,290,000</b>
North Dakota State University	122	\$154,437,000	University of Alaska	128	\$142,742,000	<b>UNLV</b>	<b>177</b>	
New Mexico State University	129	\$134,262,000	New Mexico State University	133	\$132,377,000	North Dakota State University	124	\$156,297,000
<b>UNR</b>	<b>155</b>	<b>\$126,722,000</b>	<b>UNR</b>	<b>150</b>	<b>\$132,138,000</b>	University of Alaska	132	\$144,259,000
<b>UNLV</b>	<b>210</b>		<b>UNLV</b>	<b>208</b>		New Mexico State University	142	\$114,619,000