



# THE UNIVERSITY *of* NEW MEXICO

## Research Allocations Committee (RAC) Report

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## ***Research Allocations Committee Report***

The purpose of this short report is to provide some information about applications for and awards of Research Allocations Committee (RAC) grants, and to assess the impact of that funding on faculty research at the University of New Mexico. Data on RAC grant applications and awards from 2008 through spring 2017 were obtained from the Office of the University Secretary. In addition, the Office of Vice President of Research (OVPR) administered a survey in spring 2017 to RAC award recipients. Of the 257 RAC awards granted since 2008, we identified 210 individual recipients with active email addresses. The request to respond to a short survey was sent to these 210 active addresses. We received 101 responses, a 48% response rate.

### ***RAC Applicants and Grant Recipients***

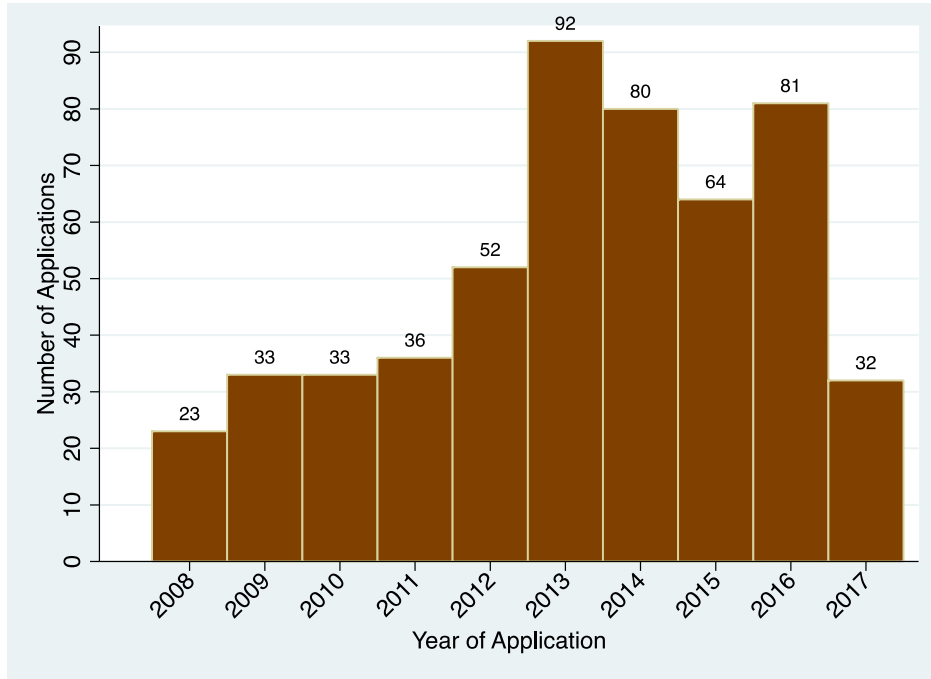
From 2008 through spring 2017, 526 proposals were submitted by tenured and tenure track faculty members at the University of New Mexico to RAC for evaluation. Of these, 257 (48.9%) proposals were awarded funding and 269 (51.1%) were denied (Table 1).

**Table 1: Total Applications and Rate of Acceptance**

<b>Decision</b>	<b>Number</b>	<b>Percent</b>
<b>Awarded</b>	257	48.9
<b>Denied</b>	269	51.1
<b>Total</b>	526	100.00

The number of applications and the rates of acceptance over time, however, are not constant. Figure 1 below shows the annual number of applications per year beginning in 2008. (Data for 2017 only includes the spring semester at this time.) We see a significantly larger number of applications after 2011 compared to the earlier years, with a peak of 92 applications in 2013.

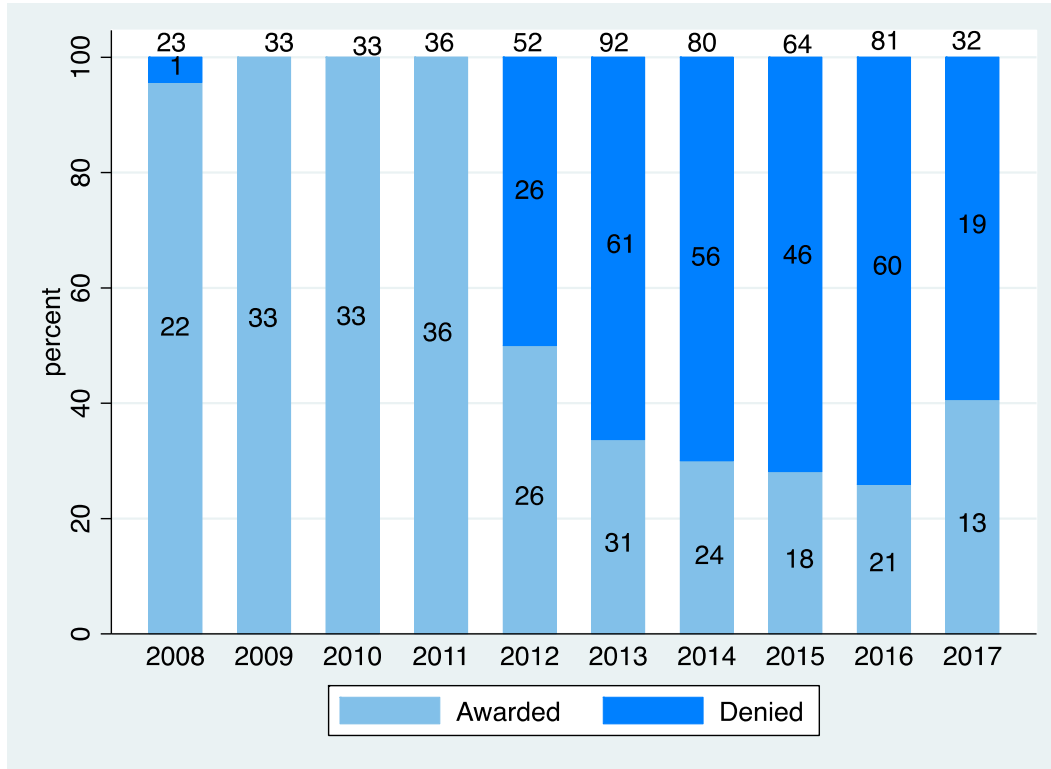
**Figure 1: Applications per Year**



Along with the total number of applications per year, Figure 2 presents the number and proportion of grants awarded and denied each year, and Table 2 presents total dollars requested and awarded over time. From 2008 through 2011, RAC funded both small (less than \$4,000) and large (up to \$8000 for individual proposals and up to \$10,000 for multidisciplinary proposals) grants. The majority of applications (70%) and awards (70%) in this period were for small grants, but virtually all applications (large and small) for RAC funding were granted. After 2011, the distinction between small and large grants was dropped, so for all applicants the maximum amount that could be requested was set at \$10,000. After 2011, only 13% of applications were for grants less than \$4,000 compared to 70% in the period 2008-11. Possibly because small grants were done away with, in 2012 we see a jump in the number of applications from 36 to 52. In 2012, we also see a decrease in total amount funded and a significant decline in the number of awards from 36 to 26. The number of applications since 2012 has in general been significantly higher than pre-2012, yet total amount funded has not

increased significantly overall. From 2012 to the present, only a fraction of applications have received funding and that fraction has steadily declined over time.<sup>1</sup>

**Figure 2: Proportion of Awards and Denials**



**Table 2: Total Amounts Requested and Funded Over Time**

Year	Amount Requested	Number of Applications	Amount Funded	Number of Grants Funded	Percent of Grants Funded	Average Funded Amount
2008	\$121,756	23	\$114,804	22	96%	\$5,218
2009	\$142,782	33	\$133,763	33	100%	\$4,053
2010	\$156,169	33	\$153,349	33	100%	\$4,647
2011	\$170,016	36	\$163,578	36	100%	\$4,544
2012	\$339,404	52	\$140,361	26	50%	\$5,399
2013	\$723,648	92	\$206,059	31	34%	\$6,647
2014	\$632,286	80	\$170,214	24	30%	\$7,092
2015	\$488,138	64	\$129,424	18	28%	\$7,190
2016	\$625,224	81	\$147,694	21	26%	\$7,033
2017	\$239,476	32	\$89,451	13	41% <sup>1</sup>	\$6,881

<sup>1</sup> Since data for 2017 only includes spring semester, it is not yet known if the trend of a decline in the proportion of funded applications will continue.

Table 3 shows the total number of applications by UNM college or school over the period from 2008 through spring 2017. The College of Arts & Sciences, the largest college in the university, had the most applications (275), followed by 68 applicants from the College of Education, 61 from the College of Fine Arts, 50 from the College of Engineering, 19 from the Honors College, 18 from Architecture and Planning College, 15 from Public Administration, 10 from the Anderson School of Management, 6 from Branch Campuses and finally 4 applicants from the UNM Law School. There is a perception that STEM disciplines are favored over other disciplines. If we use the National Science Foundation's definition of STEM (engineering, life sciences, physical sciences, and social science), we have 295 applications (56%) from STEM disciplines, but only 138 (53%) received funding, similar to the overall rate of acceptance (49%). Further, the rate of applications per faculty in STEM fields is not higher than other fields. The success rate across colleges/schools does vary, but STEM does not appear to be favored. The College of Arts and Sciences along with Fine Arts have the highest rates of success, just over 50% for each, and the Anderson School of Management is the least successful at 20%.

Colleges/schools vary dramatically by faculty size, and applications tend to follow college/school size. The College of Arts & Sciences has the most applications, but it also has the largest number of faculty. In terms of success rates, Arts & Sciences has the highest percent of grants awarded (56%), followed by Fine Arts (53%), Education (44%), and Engineering and Public Administration (both 40%), with Architecture and Planning (20%) and Anderson School of Management (20%) the least successful.

Table 3 additionally reports the number of tenured and tenure track faculty by college/school.<sup>2</sup> For example, looking at the rate of applications per faculty for the academic year 2016-17 (and using 2015 data on the number of faculty), Arts & Sciences ranks fourth behind Public Administration, Education, and Architecture & Planning (Table 3). Using the 2015 data on number of faculty per college/school yields similar rates in other years (data on number of faculty are not available for other years).

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<sup>2</sup> The number of faculty is based on data reported for 2015 and was obtained from [http://dashboard.unm.edu/categories/employees/entries/faculty?data\\_large=true&secure=false&employmentYear=2015&sunburstLevels%5B%5D=college&sunburstLevels%5B%5D=category](http://dashboard.unm.edu/categories/employees/entries/faculty?data_large=true&secure=false&employmentYear=2015&sunburstLevels%5B%5D=college&sunburstLevels%5B%5D=category)

**Table 3: Funding Decisions by College**

<b>College/School (Total Applications 2008-17)</b>	<b>Awarded</b>	<b>Denied</b>	<b>Number of Tenured and Tenure-track Faculty (2015)</b>	<b>Number of Applications 2016-17</b>	<b>Applications per Faculty Academic year 2016-17</b>
<b>Arts and Sciences (275)</b>	154 56%	121 44%	403	34	.08
<b>Education (68)</b>	30 44%	38 56%	91	14	.15
<b>Fine Arts (61)</b>	32 53%	29 48%	92	6	.07
<b>Engineering (50)</b>	20 40%	30 60%	96	4	.04
<b>University/Honors (19)</b>	6 31%	13 68%	44	1	.02
<b>Architecture &amp; Planning (18)</b>	4 22%	14 78%	26	3	.12
<b>Public Administration (15)</b>	6 40%	9 60%	12	3	.25
<b>Anderson School of Management (10)</b>	2 20%	8 80%	51	1	.02
<b>Branch Campuses (6)</b>	2 33%	4 66%	-	1	-
<b>Law School (4)</b>	1 25%	3 75%	33	0	0
<b>Total (526)</b>	257 48.9	269 51.1		67 (13%)	-

Because assistant professors are given priority by RAC, Table 4 includes the number and percent of faculty at each rank by college/school based on 2015 data. Looking at the percent of assistant professors, Public Administration has the highest proportion of assistant professors (50%, perhaps explaining their high rate of applications per faculty in the table above), followed by University/Honors (41%) and Education (36%), with Engineering (21%) and the law school (15%) having the smallest proportions. Arts & Sciences (28%), Fine Arts (33%), and Anderson School of Management (33%) are in the middle with similar percentages.

**Table 4: Number and Percent of Faculty by Rank and College/School (2015 data)**

<b>College</b>	<b>Assistant</b>	<b>Associate</b>	<b>Full</b>	<b>Total</b>
<b>Arts and Sciences</b>	111 (28%)	140 (35%)	152 (38%)	403
<b>Engineering</b>	20 (21%)	26 (27%)	50 (52%)	96
<b>Fine Arts</b>	30 (33%)	34 (37%)	28 (30%)	92
<b>Education</b>	33 (36%)	35 (38%)	23 (25%)	91
<b>Anderson School of Management</b>	17 (33%)	19 (37%)	15 (29%)	51
<b>University/Honors/Libraries</b>	18 (41%)	14 (32%)	12 (27%)	44
<b>Law</b>	5 (15%)	4 (12%)	24 (73%)	33
<b>Architecture and Planning</b>	6 (23%)	7 (27%)	13 (50%)	26
<b>Public Administration</b>	6 (50%)	1 (8%)	5 (42%)	12

In terms of academic rank for the 526 faculty applications, 305 were submitted by assistant professors, 130 by associates, and 91 by full professors (Table 5). According to the proposal guidelines, priority is given to faculty in early stages of their careers, so we might expect most applications to come from assistant professors. We note, however, that acceptance rates are virtually the same at about 50%.

**Table 5: Percent Awards By Rank, 2008-2017**

<b>Rank</b>	<b>Awarded</b>	<b>Denied</b>	<b>Total</b>
<b>Assistant (58%)</b>	<b>146 (48%)</b>	<b>159 (52%)</b>	<b>305</b>
<b>Associate (25%)</b>	<b>65 (50%)</b>	<b>65 (50%)</b>	<b>130</b>
<b>Full (17%)</b>	<b>46 (51%)</b>	<b>45 (49%)</b>	<b>91</b>

The colleges/schools with the most applications received the most overall funding. With 275 applications, the College of Arts and Science received the most money, followed by Fine Arts, Education and Engineering (Table 6). However, average awards are relatively similar across colleges, with the highest average awards (around \$7000) going to Engineering, Fine Arts and the Anderson School of Management and the smallest averages (about \$4000) going to the law school and branch campuses. The Law School, Engineering, the Anderson School of Management, and Fine Arts have the largest average requests, while Engineering has the largest average awards. On average, applicants from the Fine Arts receive awards closest to what they requested, with the Law School the furthest.

**Table 6: Average Award by College/School, 2008-2017**

College/School	Total \$ Requested	Total \$ Awarded	Average Request	Average Award
Arts and Sciences	\$1,829,003	\$807,493	\$6,651	\$5,243
Fine Arts	\$441,470	\$224,927	\$7,237	\$7,029
Education	\$460,133	\$159,459	\$6,767	\$5,315
Engineering	\$419,968	\$148,451	\$8,399	\$7,426
University/Honors/Libraries	\$127,807	\$34,776	\$6,727	\$5,796
Public Administration	\$83,692	\$26,690	\$5,579	\$4,448
Architecture and Planning	\$129,138	\$21,172	\$7,174	\$5,293
Anderson School of Management	\$76,967	\$13,412	\$7,697	\$6,706
Branch Campus	\$36,921	\$8,317	\$6,154	\$4,159
Law School	\$33,800	\$4,000	\$8,450	\$4,000

Regarding average RAC award by rank, we see in Table 7 below that they are all relatively close, between \$5000 and \$6000, with assistant professors receiving slightly more (about \$700) on average than associates or full professors.

**Table 7: Average Award by Rank**

Rank	Average Award
Assistant (146)	\$5946
Associate (65)	\$5274
Full (46)	\$5168



### ***RAC Recipients and the Impact of RAC Grants on Their Research***

The data available on RAC applications and awards do not include any demographic information on applicants or information regarding the impact of RAC funding. So we are not able to report on anything more than college/school of applicants and their rank. To learn more about the applicants and the impact of RAC funding, with help from the Office of the Vice President for Research, the authors of the report conducted a survey of the faculty with active email addresses (N=210) who received one of the 257 RAC grants awarded between 2008 and spring 2017 with the purpose of examining demographics and the impact of RAC grants on faculty research.

We received 101 responses, which included 56 female faculty (55.45%) and 45 males (44.55 %). In terms of race/ethnicity, the sample includes 4% American or Alaskan Native, 11% Asian, 1% African American, 1% Native Hawaiian or Pacific Islanders, and 17% Hispanic. In terms of academic rank, we received responses from 40 Assistant Professors, 42 Associate Professors and 19 Full Professors. Among the respondents, 71 received one RAC grant, 22 received 2 grants, 7 received 3 grants, and 1 received 6 grants in the 2008-2017 period. A variety of disciplines are also represented including: education (6), engineering (11), fine arts (12), humanities (25), interdisciplinary (4), life sciences (9), physical sciences (11), and social sciences (23), with STEM disciplines making up 53% of respondents.

Tables 8 and 9 below show the gender and rank of Hispanic and non-Hispanic survey respondents. Among the 17 Hispanic respondents, 10 are female, 7 male. By rank, the majority (11) are assistant professors, with only 2 full and 4 associate professors. Associates (45%) make up the largest group on non-Hispanic respondents, followed by assistant professors (35%).

**Table 8: Percent of Respondents by Gender and Ethnicity**

	<b>Female</b>	<b>Male</b>	<b>Total</b>
<b>Non-Hispanic</b>	46 55%	38 45%	84
<b>Hispanic</b>	10 59%	7 41%	17
<b>Total</b>	56 55%	45 45%	101

**Table 9: Percent of Respondents by Rank and Ethnicity**

	<b>Assistant</b>	<b>Associate</b>	<b>Full</b>	<b>Total</b>
<b>Non-Hispanic</b>	29 35%	38 45%	17 20%	84
<b>Hispanic</b>	11 65%	4 23%	2 12%	17
<b>Total</b>	40 40%	42 41%	19 19%	101 100%

In the survey, respondents were asked whether they strongly agree, agree, disagree or strongly disagree with the following two questions about the impact of RAC grant funds. “RAC grants enable or enhance research or creative works at UNM?” and “ RAC grant funds positively impacted my subsequent research or creative works?” Virtually all respondents agreed or strongly agreed that RAC grants have had a positive effect on their research. On the Impact of funding on work, 10% of faculty agreed and 87% strongly agreed. On the question of whether or not RAC grants funds positively impacted subsequent research or creative works, 15% faculty agreed and 82% strongly agreed. Three individuals strongly disagreed on both of these question, but given their very positive responses to other questions and their written comments regarding RAC, we suspect they meant to mark strongly agree. Regardless, we find virtually no variance on these questions. Faculty generally agreed (97%) that RAC funding enhances research.

Respondents were further asked to identify all products and projects that were a direct or indirect result of the applicant’s RAC grant funding. Table 10 lists the frequencies for each. Most faculty (97%) indicated that their RAC grant resulted in at least one product. About three-fourths of respondents indicated producing both one or more publications and conference papers from their RAC grants. Other products include book contracts, patents, poster presentation, invited talks/presentations, and works of art. Over fifty percent of respondents applied for at least one external (federal and non-federal) grant as a result of their RAC funding, and nearly one-third of RAC recipients were awarded external grants. More specifically, 25 faculty were awarded 29 federal grants, with funding coming from the National Science Foundation, National Institute of Health, National Endowment for the Arts, Department of

Education, Department of Defense, National Institute of Health, Department of Energy, and the National Endowment for the Humanities.

**Table 10: Number of Individuals Who Reported Products/Projects Resulting from RAC Grants**

<b>Products/Projects</b>	<b>Number (Out of 101 Survey Respondents)</b>
<b>Publications</b>	78
<b>Conference paper</b>	75
<b>External grant applications</b>	54
<b>External grant award</b>	31
<b>Public performances</b>	15
<b>Public exhibitions</b>	11
<b>Other</b>	15

### **Conclusions**

The purpose of this report is to provide information on RAC applications and awards, along with the impact of RAC grants on faculty research. From 2008 through spring 2017, the Research Allocation Committee awarded about \$1.4 million dollars to UNM tenured and tenure track faculty. This funding seems to be having a marked impact on reported faculty productivity, with 97% of reporting faculty indicating that their RAC grant resulted in some kind of research related products or events. Nearly a third of respondents reported receiving external funding as a result of their RAC activities, with the dollar amount of external grants reported as totaling over \$16 million. Competition for RAC funding has seen a steady increase since 2012 (when the distinction between small and large grant was dropped), with the percent of funded applications declining from 50% in 2012 to 26% by 2016. By design, the majority of RAC applications (58%) come from assistant professors, though rates of acceptance and average awards are similar across ranks. The largest college (Arts & Sciences) has the most RAC applications, though the acceptance rate, average awards, and number of grants per faculty are not significantly different from other large schools/colleges.