

UMC SURVEY DATA

ACADEMIC YEAR 2024-2025
45 MSE DEPARTMENTS &
PROGRAMS

THE 2024-2025 PARTICIPANTS

1. Carnegie Mellon University
2. Case Western Reserve University
3. Colorado School of Mines
4. Cornell University
5. Duke University
6. Georgia Institute of Technology
7. Illinois Institute of Technology
8. Johns Hopkins University
9. Massachusetts Institute of Technology
10. Michigan State University
11. Michigan Technological University
12. Missouri University of Science and Technology
13. Montana Technological University
14. New Jersey Institute of Technology
15. New Mexico Tech
16. North Carolina State University
17. Northwestern University
18. Oregon State University
19. Purdue University
20. Rice University
21. Rowan University
22. Rutgers University
23. South Dakota School of Mines and Technology
24. Stony Brook University
25. Texas A&M University
26. The Ohio State University
27. University of Alabama at Birmingham
28. University of California San Diego
29. University of Central Florida
30. University of Connecticut
31. University of Delaware
32. University of Florida
33. University of Houston
34. University of Minnesota
35. University of Nevada, Reno
36. University of Notre Dame
37. University of Tennessee
38. University of Texas at Dallas
39. University of Utah
40. University of Virginia
41. University of Wisconsin - Madison
42. Virginia Tech
43. Washington State University
44. Washington University in St. Louis
45. Wayne State University

HOW THIS REPORT HANDLES THE DATA

Shown by institution

Faculty headcounts by rank, student enrollment, degrees awarded, share of college enrollment, BS credit hours, and professional honors. These are largely public information.

Shown without institution names

Starting salaries, start-up packages, current salaries, research expenditures, postdoc salaries, graduate stipends, cost of graduate students to grants, and staffing. Bars are sorted low to high so no department can be identified.

Shown only as pooled totals

Gender and under-represented minority (URM) faculty counts. Department-level values are small enough to identify individuals.

Not shown

Contact names, emails and phone numbers; self-funded student counts; the E10 follow-up opt-in.

Anomalies

Values that were implausible, clearly mis-entered, or not comparable (e.g., interdisciplinary programs reporting affiliated faculty) were removed or corrected. Every change is listed on the Data Notes slides at the end. Each chart shows n.

AT A GLANCE: MEDIAN ACROSS RESPONDING DEPARTMENTS

\$110,000

**Assistant professor
starting salary (9-mo)**

n = 25

\$0.80M

**Assistant professor
start-up package**

n = 26

\$193,000

**Full professor
9-month salary**

n = 24

\$490K

**Research expenditures
per faculty FTE**

n = 34

\$2,848

**PhD monthly
stipend**

n = 43

\$72,750

**Annual cost of a PhD
student to a grant**

n = 42

16.8

**Tenure-track faculty
per department**

n = 36

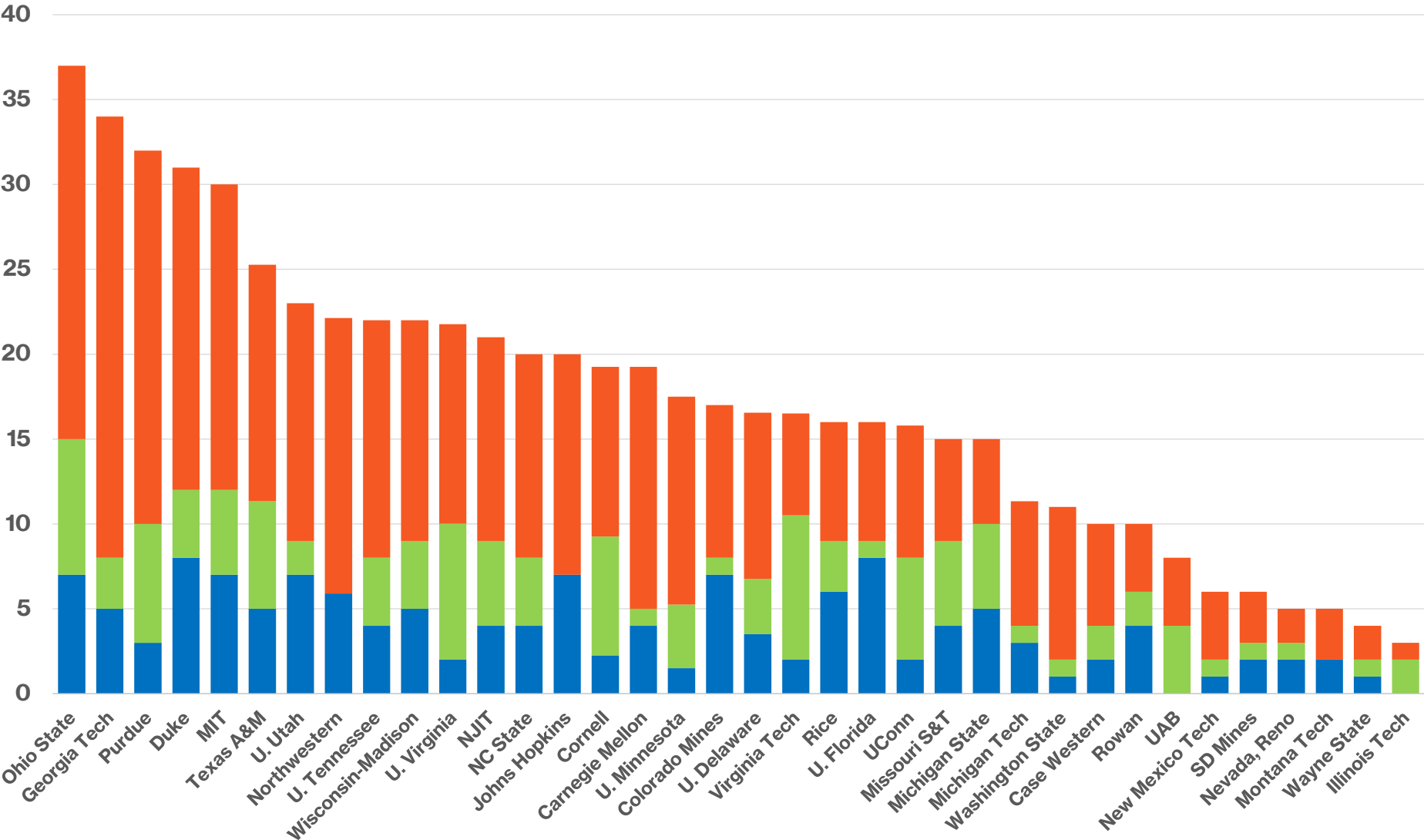
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**Courses taught per
faculty per semester**

n = 39

TENURE-TRACK FACULTY BY RANK

Assistant Associate Full



Assistant

Mean = 3.8 S.D = 2.3
Median = 4 Range: 0-8

Associate

Mean = 3.4 S.D = 2.5
Median = 3.1 Range: 0-8.5

Full

Mean = 10.2 S.D = 6.2
Median = 9.4 Range: 1-26

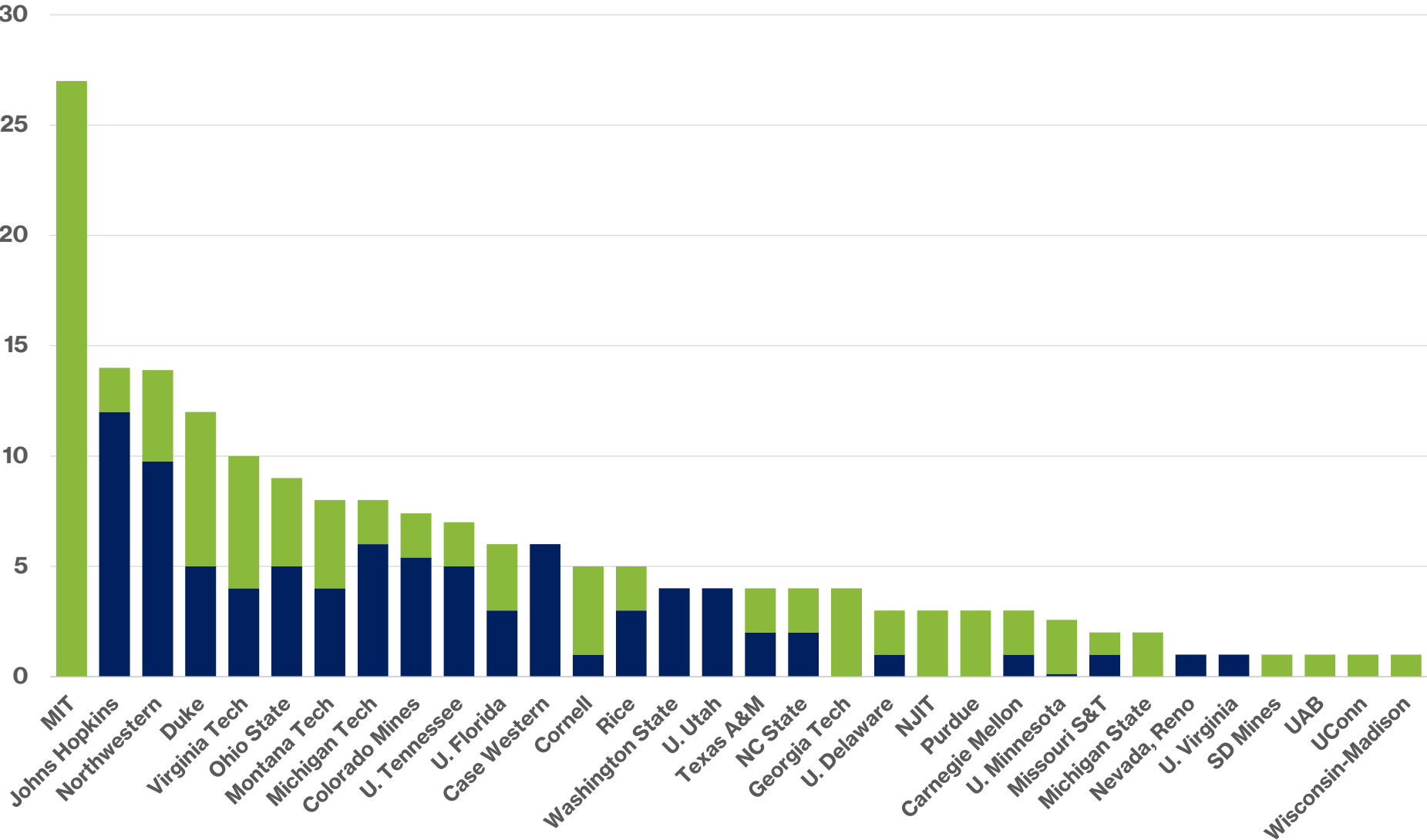
Total TT

Mean = 17.3 S.D = 8.7
Median = 16.8 Range: 3-37

n = 36. Fractional values reflect joint appointments. Nine programs removed (interdisciplinary programs reporting affiliated faculty, or counts that conflict with department websites); see Data Notes.

NON-TENURE-TRACK FACULTY (RESEARCH AND TEACHING TRACKS)

■ Research track ■ Teaching track

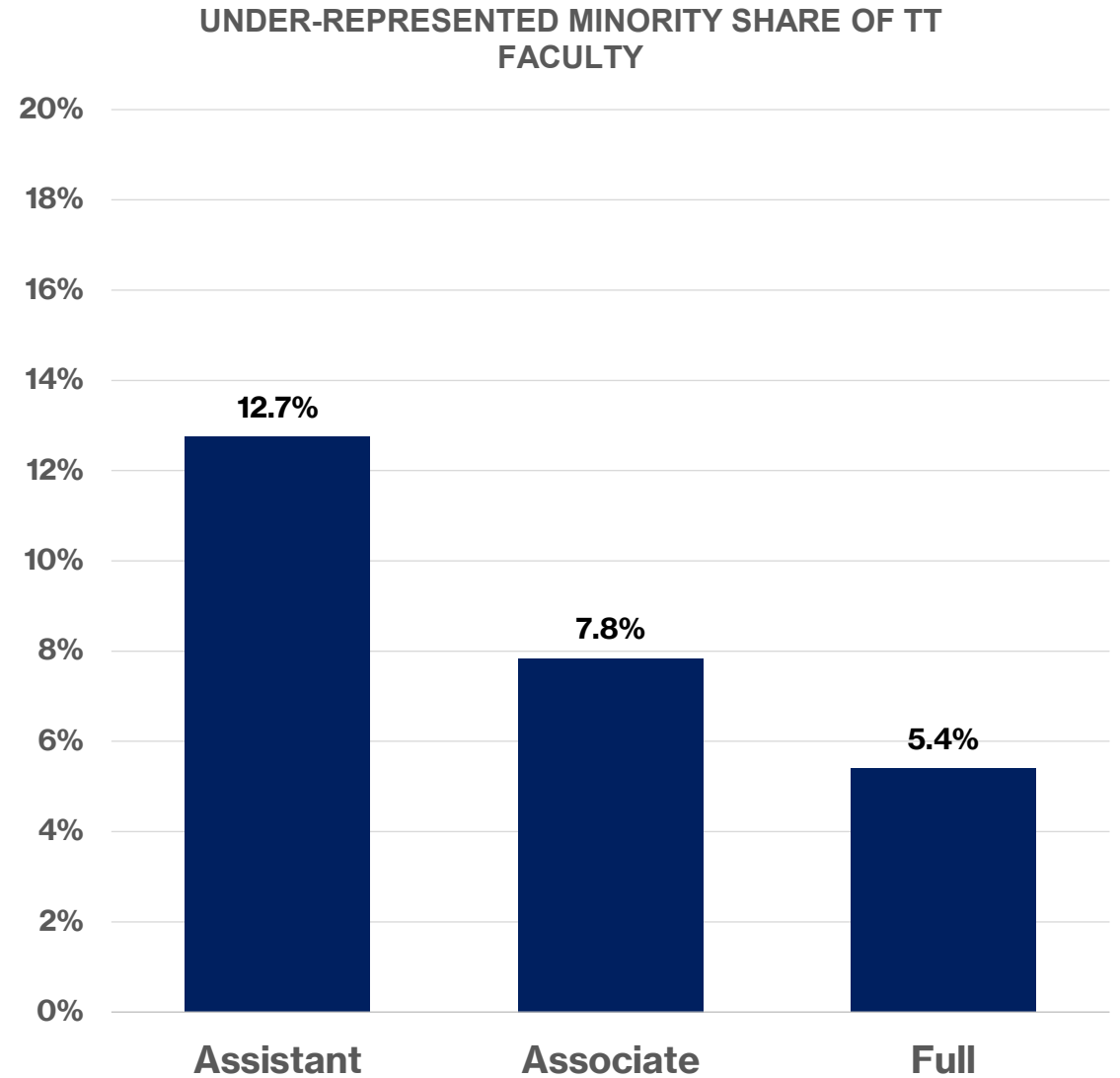
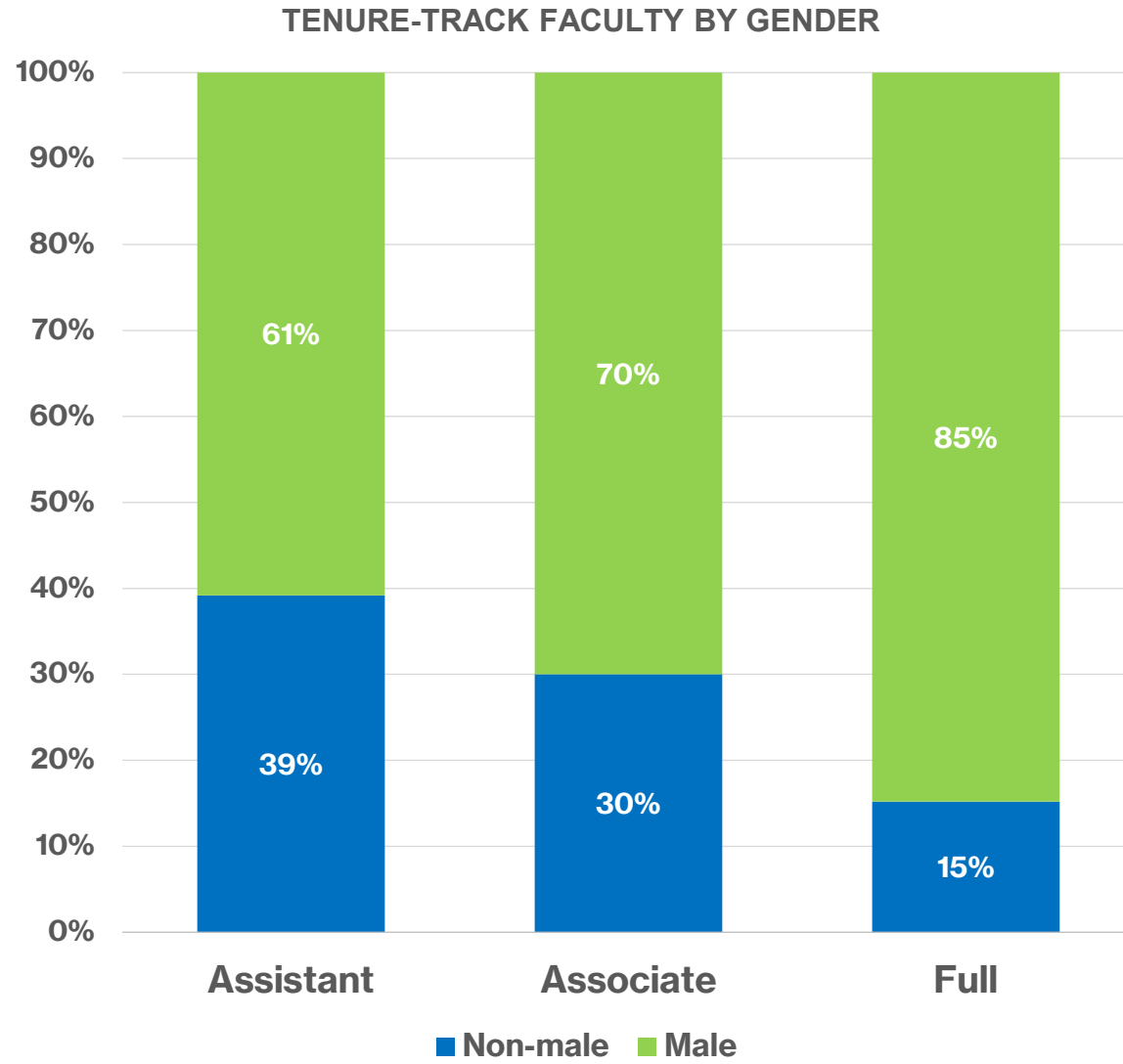


Research track
Range = 0 - 12
Mean = 2.7
Median = 1.5
S.D = 3.0

Teaching track
Range = 0 - 27
Mean = 3.0
Median = 2
S.D = 4.7

Sum of assistant/early, associate/mid and full/senior non-TT ranks. Shows the 32 departments reporting at least one non-TT faculty member; stats cover these departments.

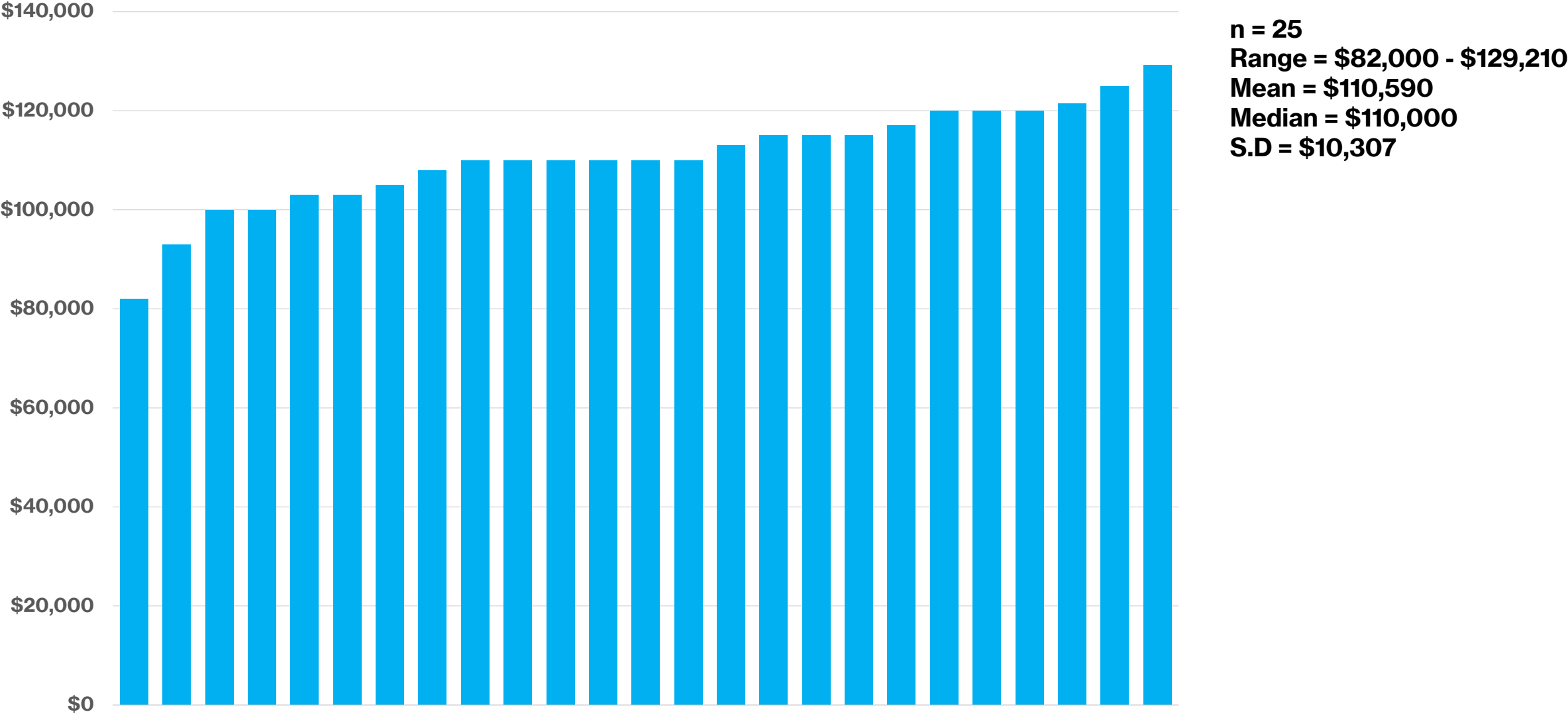
FACULTY COMPOSITION (POOLED ACROSS DEPARTMENTS)



Gender: 36 departments, 624 TT faculty. URM: 31 departments.

STARTING SALARIES: ASSISTANT PROFESSORS

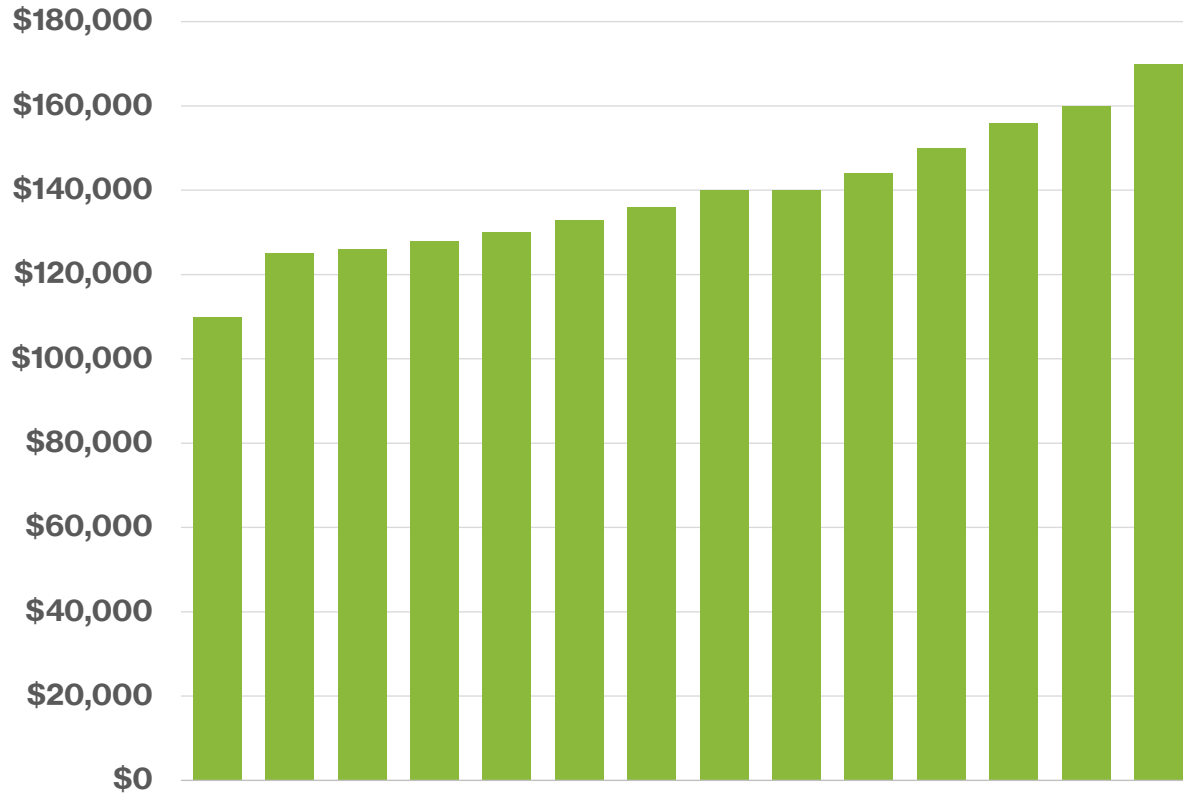
NEW-HIRE STARTING SALARY, ASSISTANT PROFESSOR (9-MONTH)



Institutions not identified; bars sorted low to high, one bar per responding department.

STARTING SALARIES: ASSOCIATE AND FULL PROFESSORS

ASSOCIATE PROFESSOR (9-MONTH)



n = 14

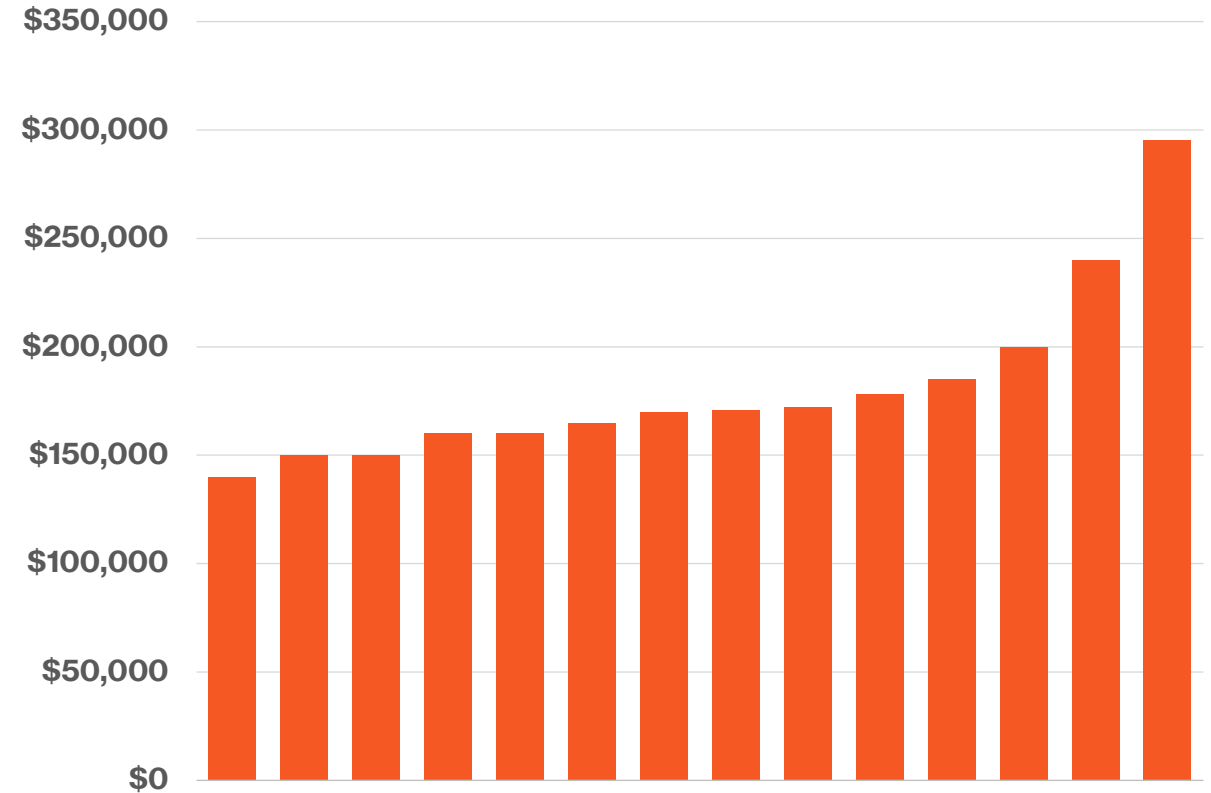
Range = \$110,000 - \$170,000

Mean = \$139,143

Median = \$138,000

S.D = \$15,913

FULL PROFESSOR (9-MONTH)



n = 14

Range = \$140,000 - \$295,500

Mean = \$181,179

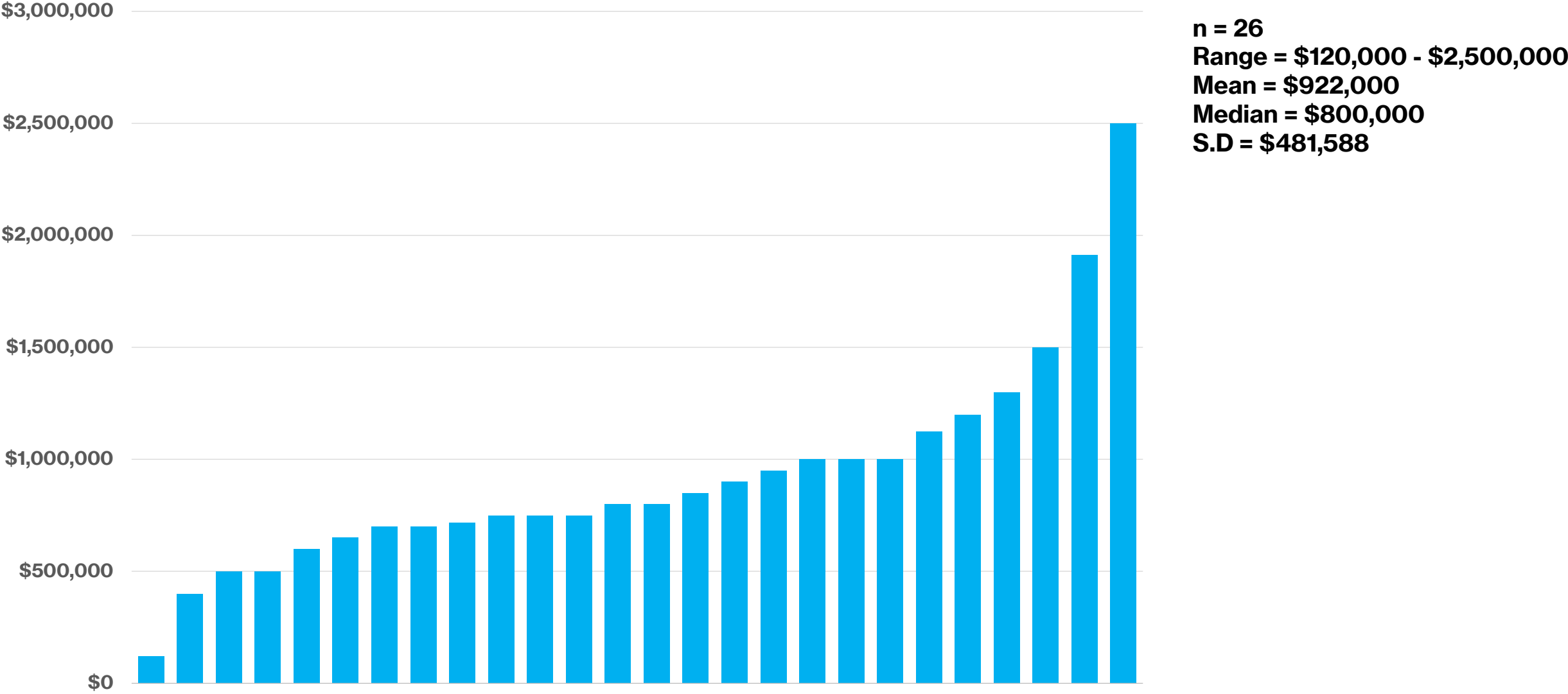
Median = \$170,500

S.D = \$41,156

Institutions not identified; bars sorted low to high, one bar per responding department. Fewer departments hired at senior ranks.

START-UP PACKAGES: ASSISTANT PROFESSORS

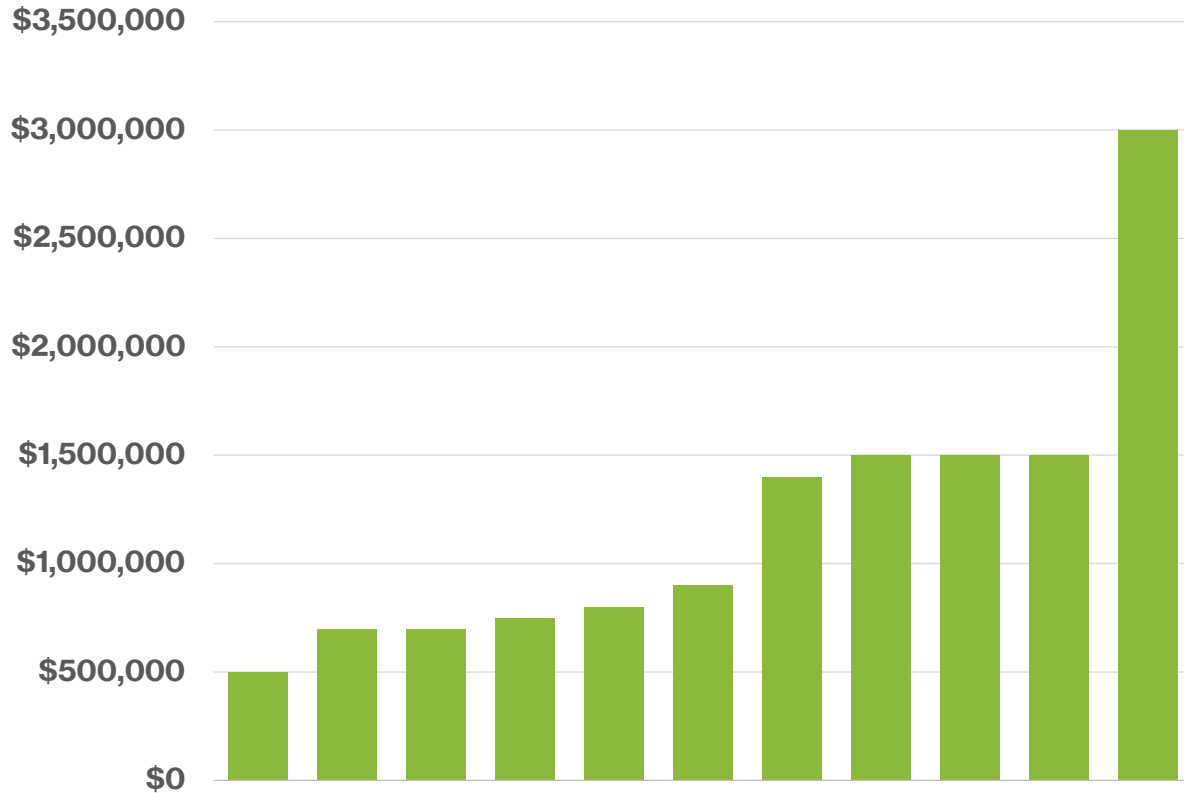
TYPICAL START-UP PACKAGE, ASSISTANT PROFESSOR



Institutions not identified; bars sorted low to high, one bar per responding department.

START-UP PACKAGES: ASSOCIATE AND FULL PROFESSORS

ASSOCIATE PROFESSOR



n = 11

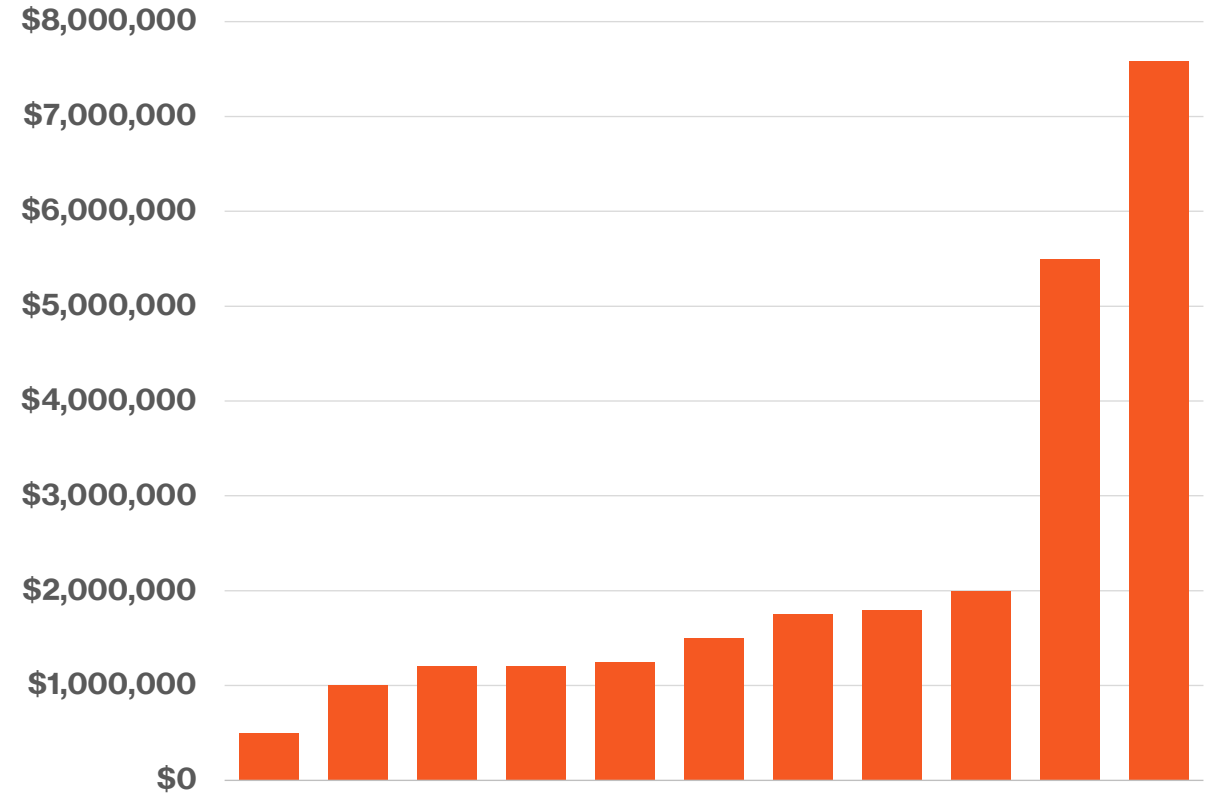
Range = \$500,000 - \$3,000,000

Mean = \$1,204,545

Median = \$900,000

S.D = \$706,560

FULL PROFESSOR



n = 11

Range = \$500,000 - \$7,580,000

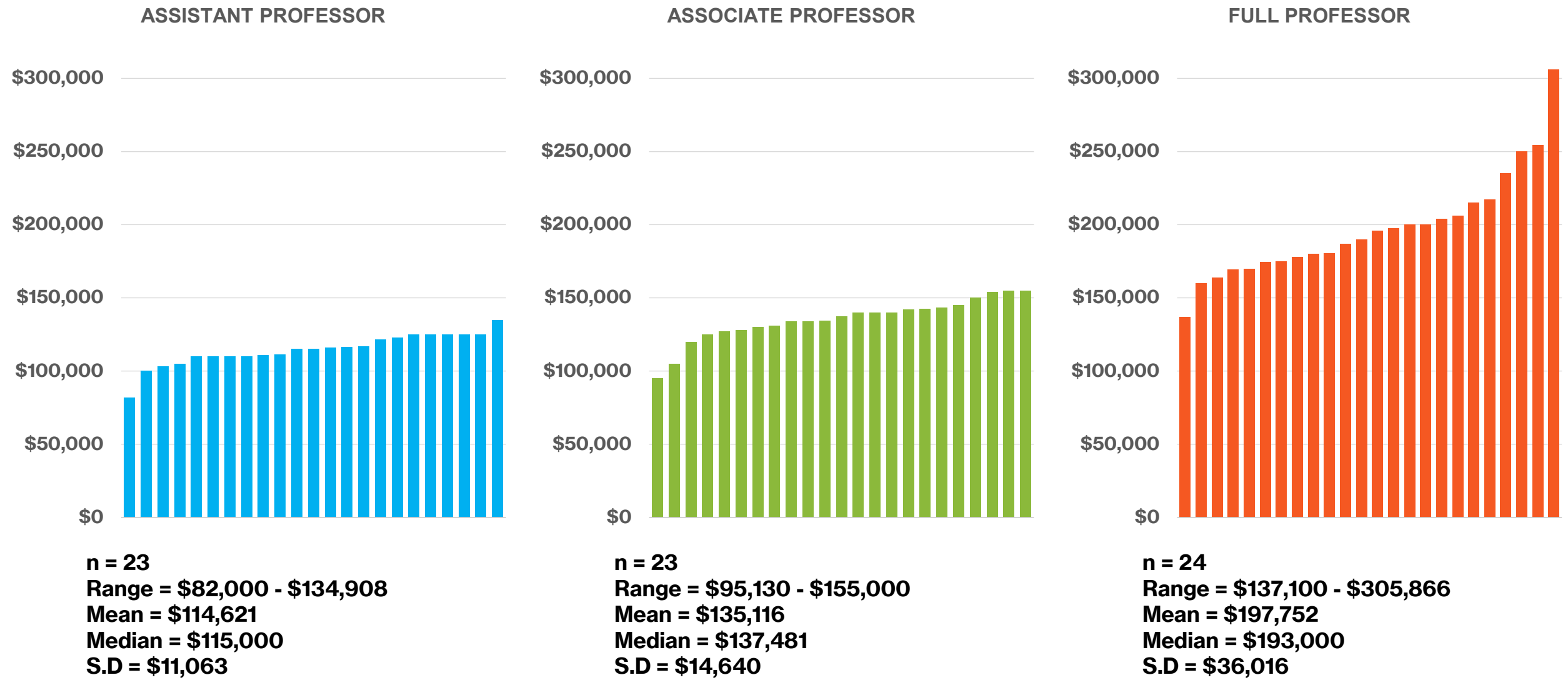
Mean = \$2,298,182

Median = \$1,500,000

S.D = \$2,187,541

Institutions not identified; bars sorted low to high, one bar per responding department. The two largest full-professor packages likely include endowed-chair or senior-hire funds; the median is the better guide.

REPRESENTATIVE CURRENT 9-MONTH SALARIES BY RANK



Institutions not identified; bars sorted low to high, one bar per responding department. Common axis for comparison across ranks.

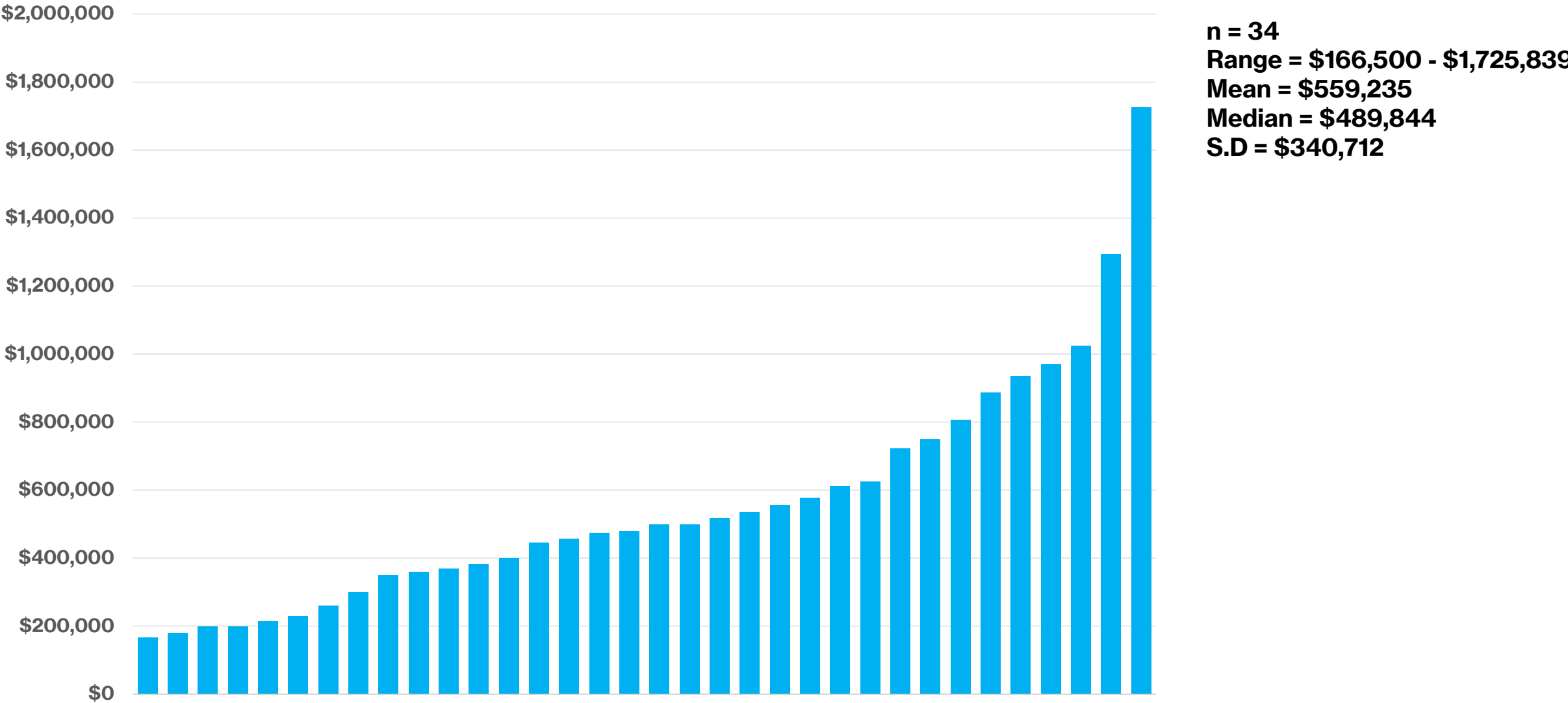
COMPENSATION SUMMARY

Measure	Rank	n	25th percentile	Median	75th percentile
New-hire starting salary (9-mo)	Assistant	25	\$105,000	\$110,000	\$117,000
	Associate	14	\$128,499	\$138,000	\$148,500
	Full	14	\$160,000	\$170,500	\$183,250
Start-up package	Assistant	26	\$700,000	\$800,000	\$1,000,000
	Associate	11	\$725,000	\$900,000	\$1,500,000
	Full	11	\$1,200,000	\$1,500,000	\$1,900,000
Current 9-month salary	Assistant	23	\$110,000	\$115,000	\$124,000
	Associate	23	\$129,000	\$137,481	\$142,912
	Full	24	\$174,894	\$193,000	\$208,250
Research expenditures per faculty FTE		34	\$352,500	\$489,844	\$697,750
Postdoc salary (100% FTE)		35	\$58,674	\$62,000	\$65,000

Percentiles of reported values (anonymized). Research expenditures include tenure-track and research-track faculty in the FTE count.

ANNUAL RESEARCH EXPENDITURES PER FACULTY FTE

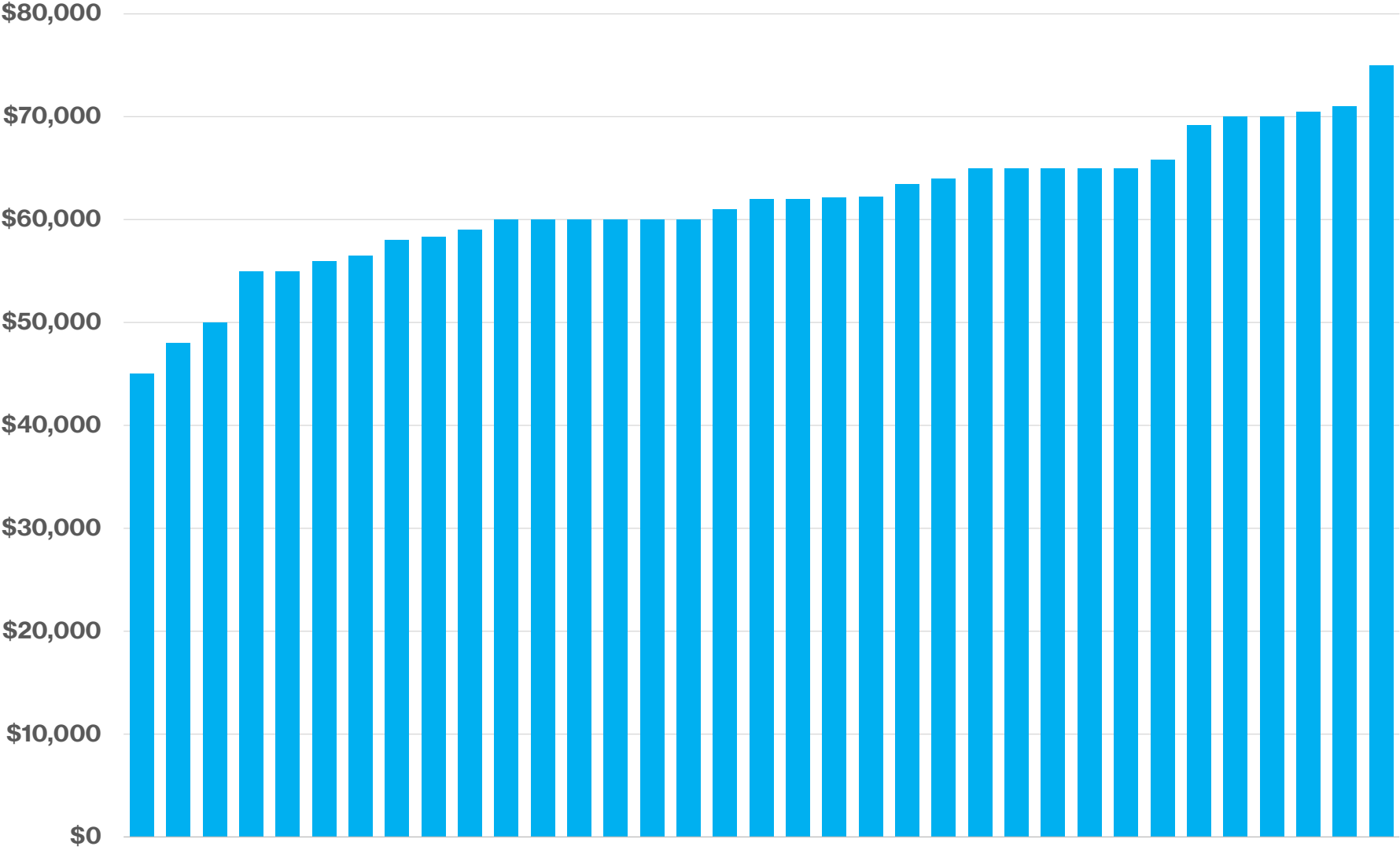
RESEARCH EXPENDITURES PER FACULTY FTE



Institutions not identified; bars sorted low to high, one bar per responding department. FTE includes tenure-track and research-track faculty.

POSTDOCTORAL RESEARCHER SALARIES

AVERAGE ANNUAL SALARY, POSTDOCTORAL RESEARCHER (100% FTE)

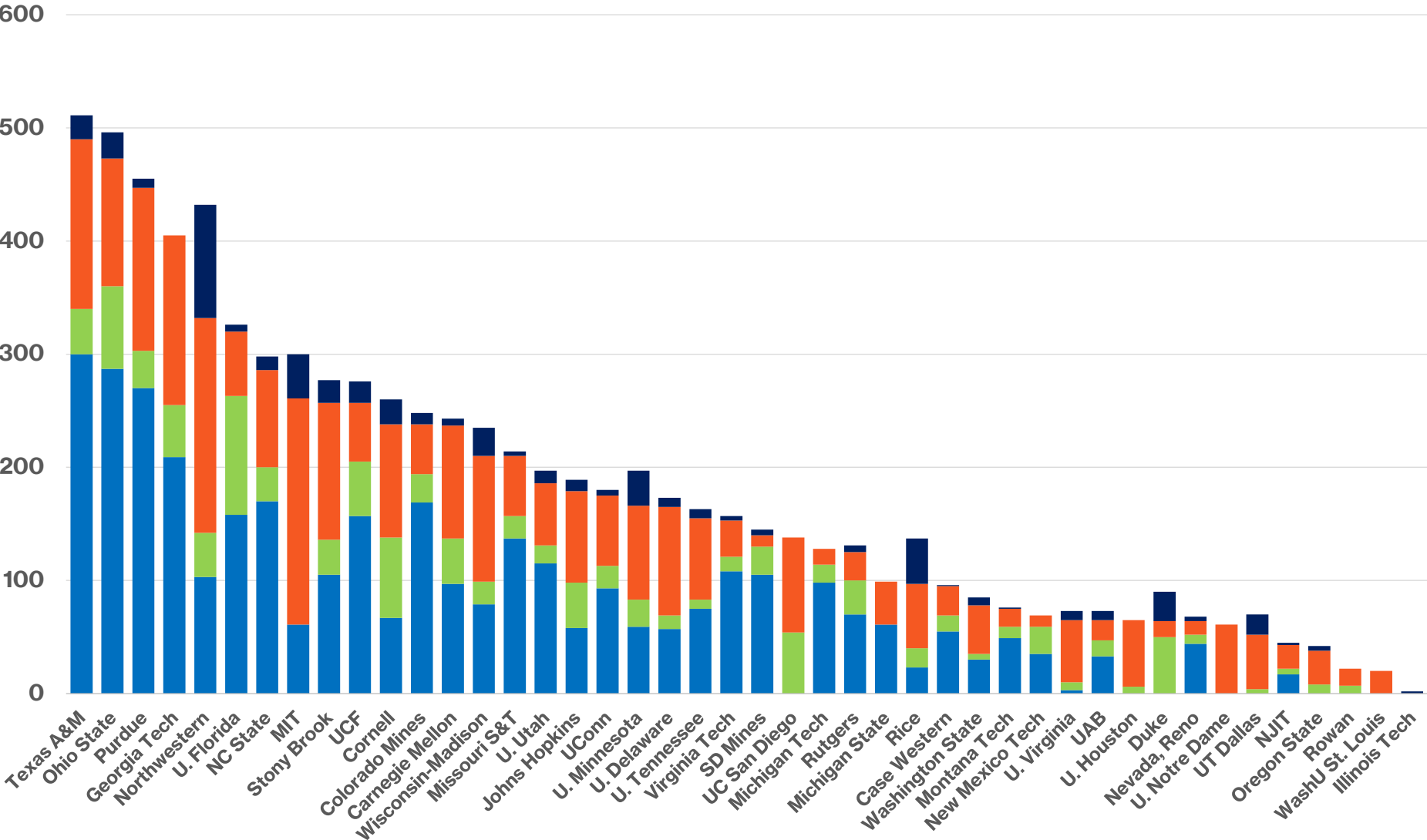


n = 35
Range = \$45,000 - \$75,000
Mean = \$61,545
Median = \$62,000
S.D = \$6,454

Institutions not identified; bars sorted low to high, one bar per responding department. One outlier removed (see Data Notes).

2024-2025 MSE ENROLLMENT (HEADCOUNT)

■ BS ■ MS ■ PhD ■ Postdoc



BS
Total = 3,557; Median = 61
Mean = 80.8; S.D = 78.2

MS
Total = 1,058; Median = 18.5
Mean = 24.0; S.D = 22.4

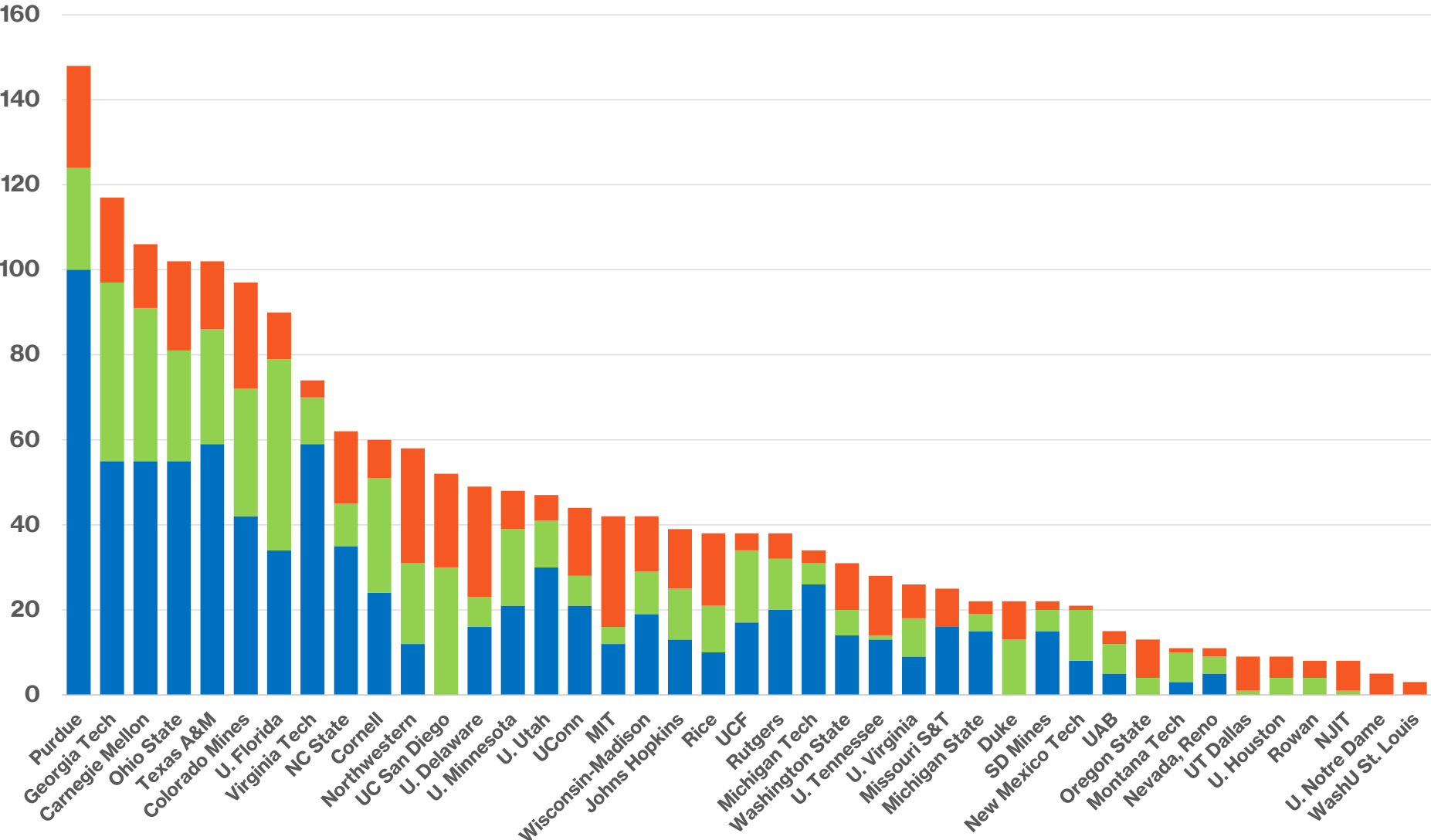
PhD
Total = 2,828; Median = 55
Mean = 64.3; S.D = 49.3

Postdoc
Total = 524; Median = 6.5
Mean = 11.9; S.D = 17.2

n = 44. Sorted by BS+MS+PhD. Zero BS = graduate-only program. Duke BS count removed (department-wide, includes Mechanical Engineering).

MSE DEGREES AWARDED, 2024-2025

■ BS ■ MS ■ PhD

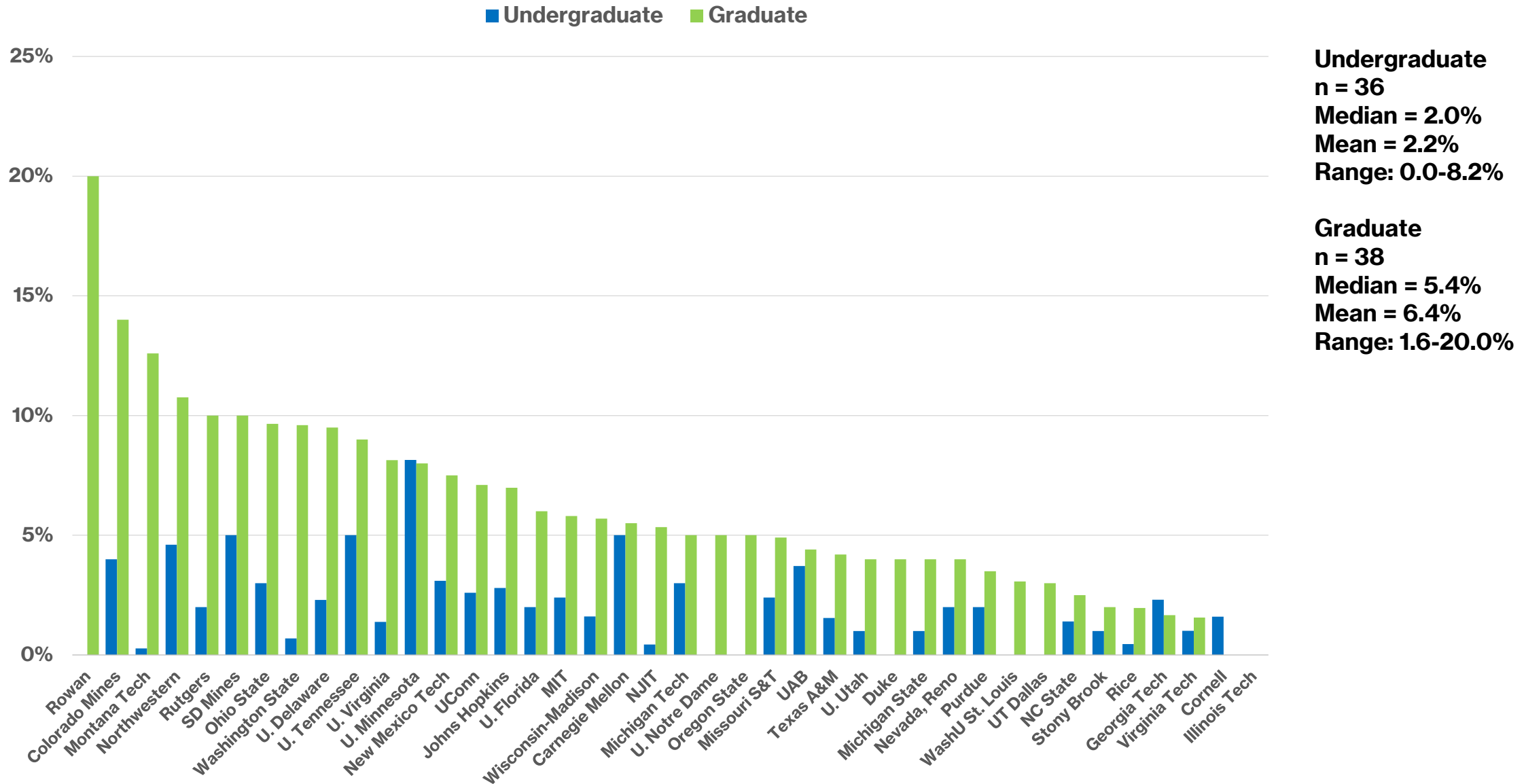


BS
Total = 838; Median = 15
Mean = 20.4; S.D = 21.9

MS
Total = 523; Median = 10
Mean = 12.8; S.D = 11.8

PhD
Total = 455; Median = 9
Mean = 11.1; S.D = 7.9

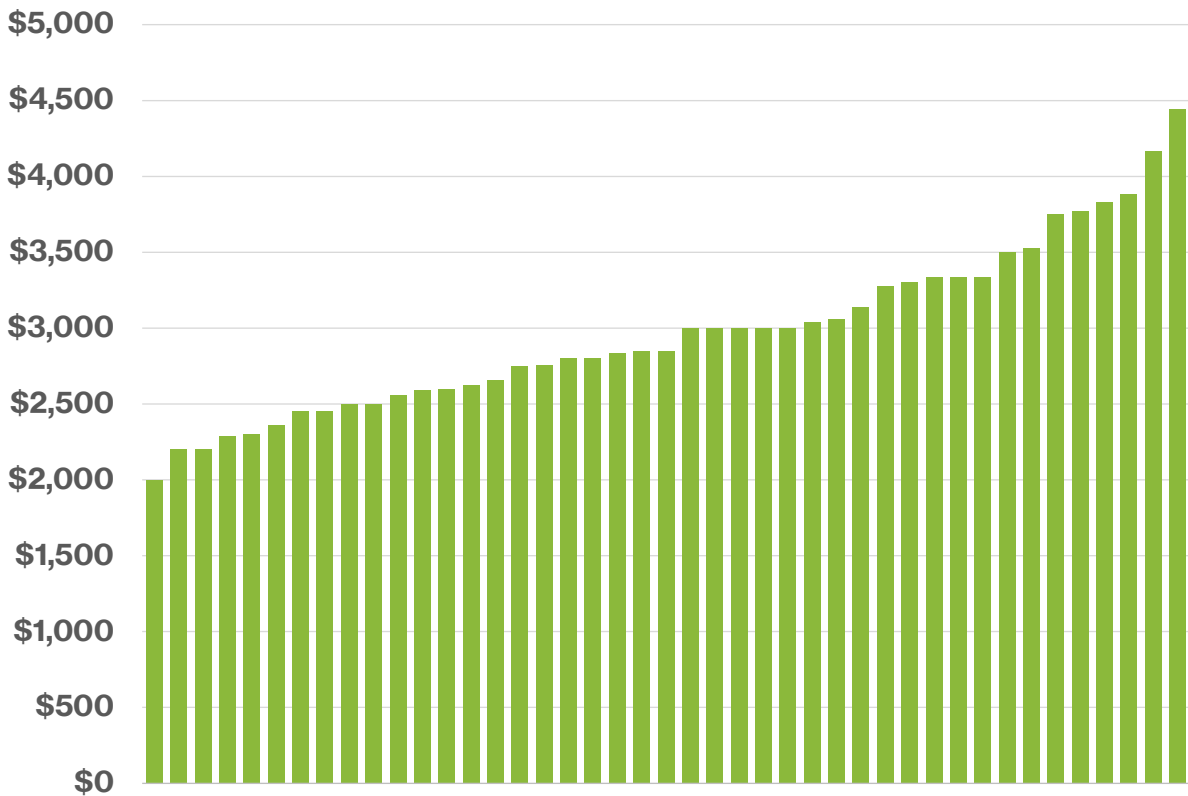
MSE ENROLLMENT AS A SHARE OF THE COLLEGE



Percent of all undergraduate (or graduate) students in the college enrolled in MSE. Sorted by graduate share.

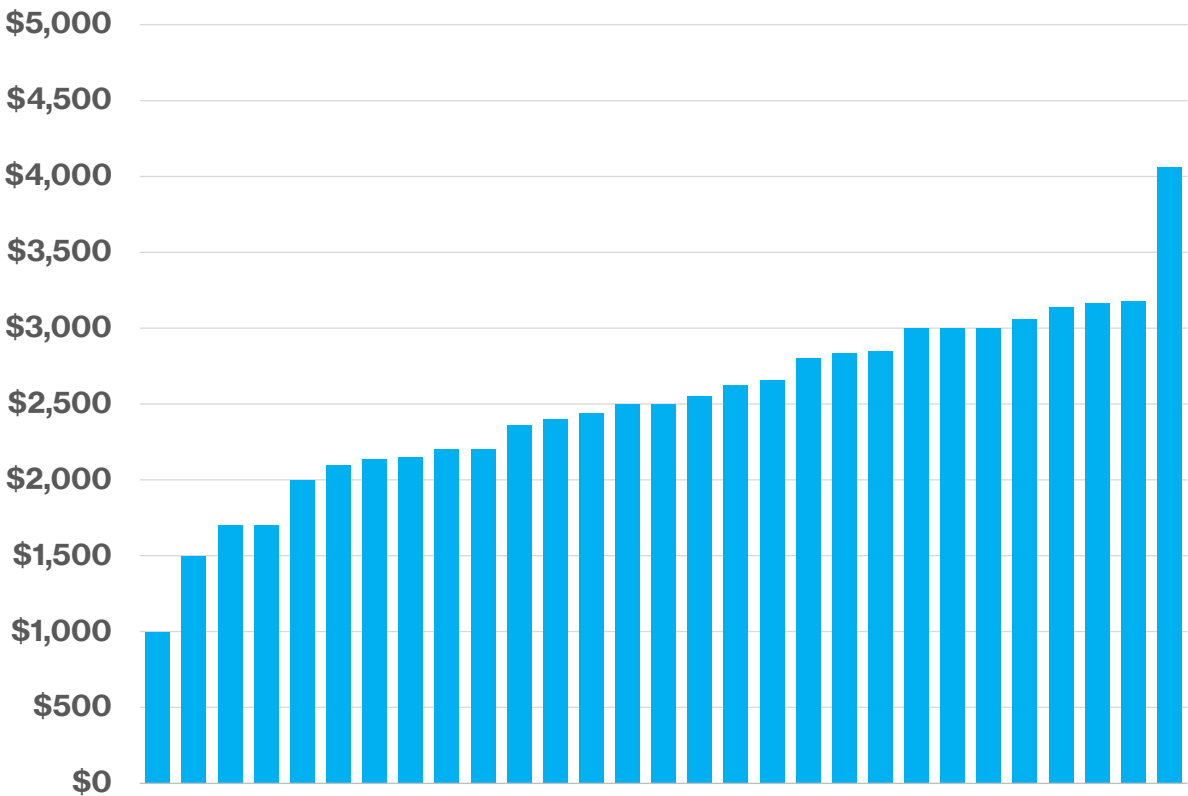
GRADUATE STUDENT MONTHLY STIPENDS

PhD MONTHLY STIPEND



n = 43
Range = \$2,000 - \$4,445
Mean = \$2,968
Median = \$2,848
S.D = \$555

MS (THESIS) MONTHLY STIPEND

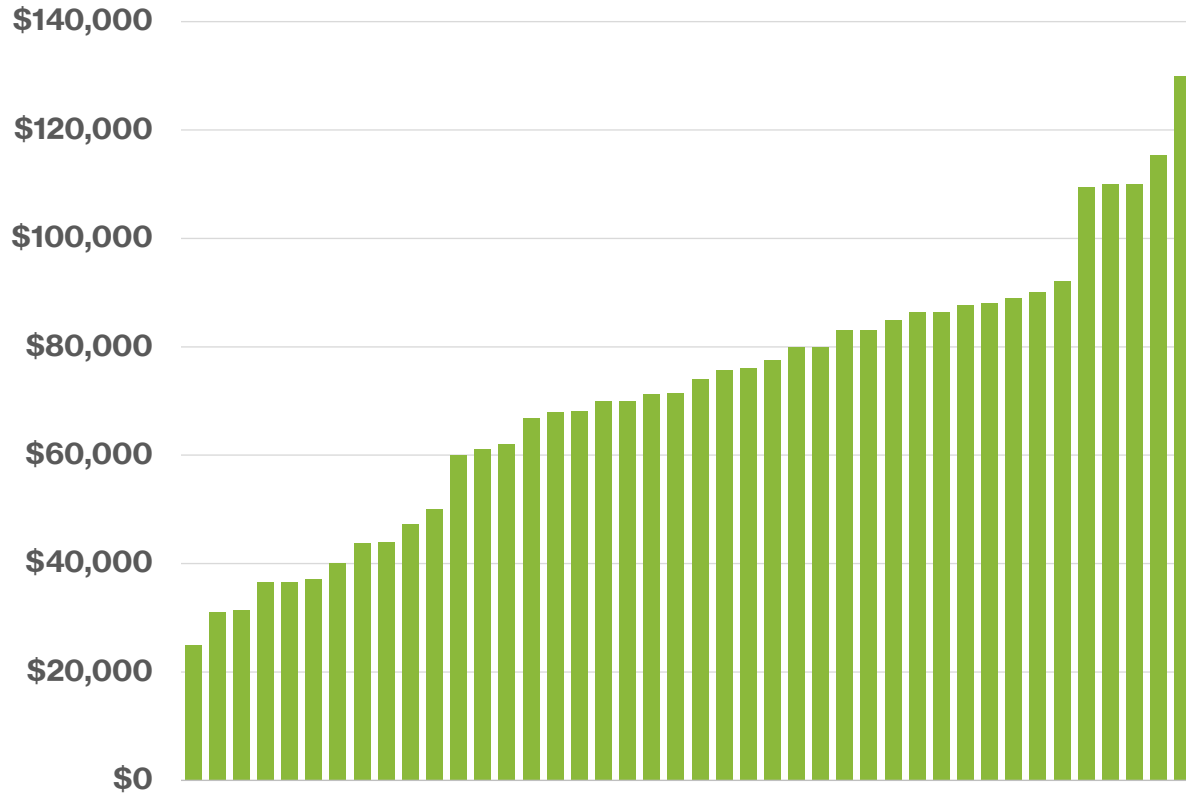


n = 29
Range = \$1,000 - \$4,060
Mean = \$2,511
Median = \$2,500
S.D = \$615

Institutions not identified; bars sorted low to high, one bar per responding department. A further 10 departments reported no MS thesis stipend. Annual figures entered by mistake were converted to monthly.

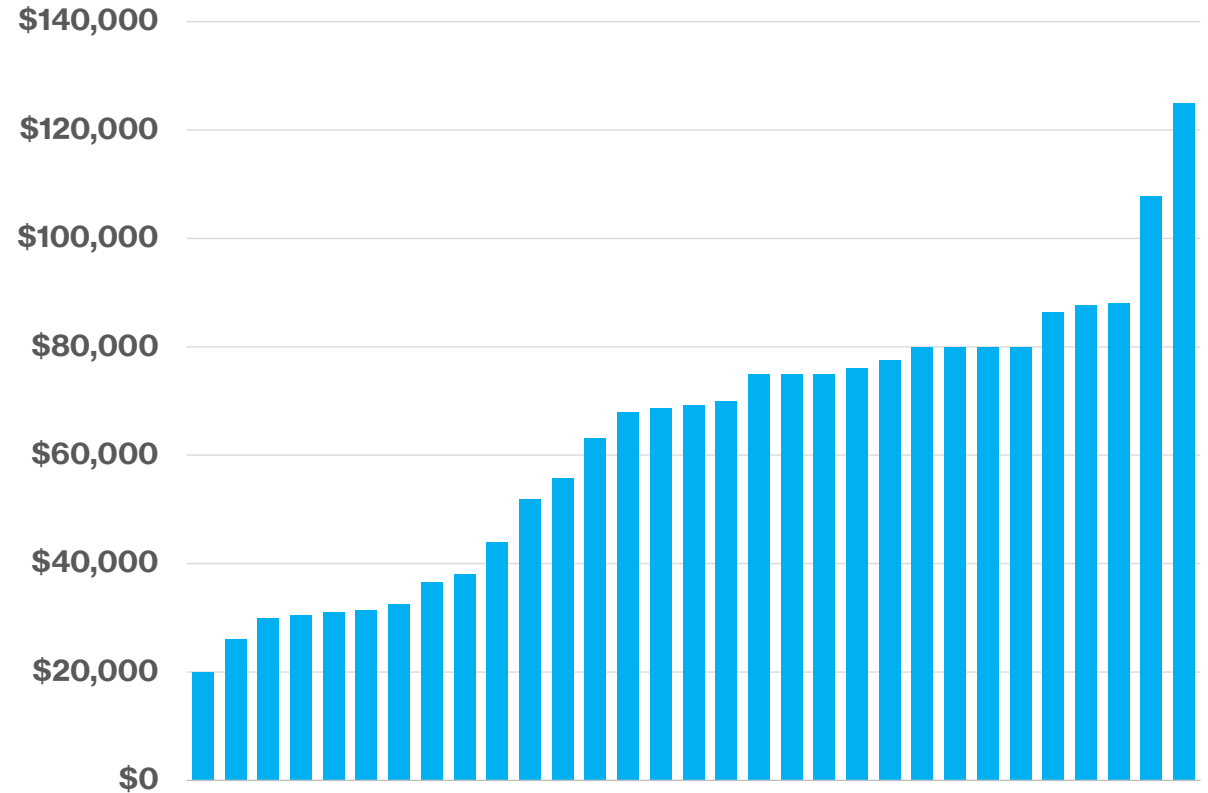
TOTAL ANNUAL COST OF A GRADUATE STUDENT TO A GRANT

PhD (TUITION + FEES + STIPEND + INDIRECTS)



n = 42
Range = \$25,000 - \$130,000
Mean = \$71,442
Median = \$72,750
S.D = \$24,922

MS (TUITION + FEES + STIPEND + INDIRECTS)

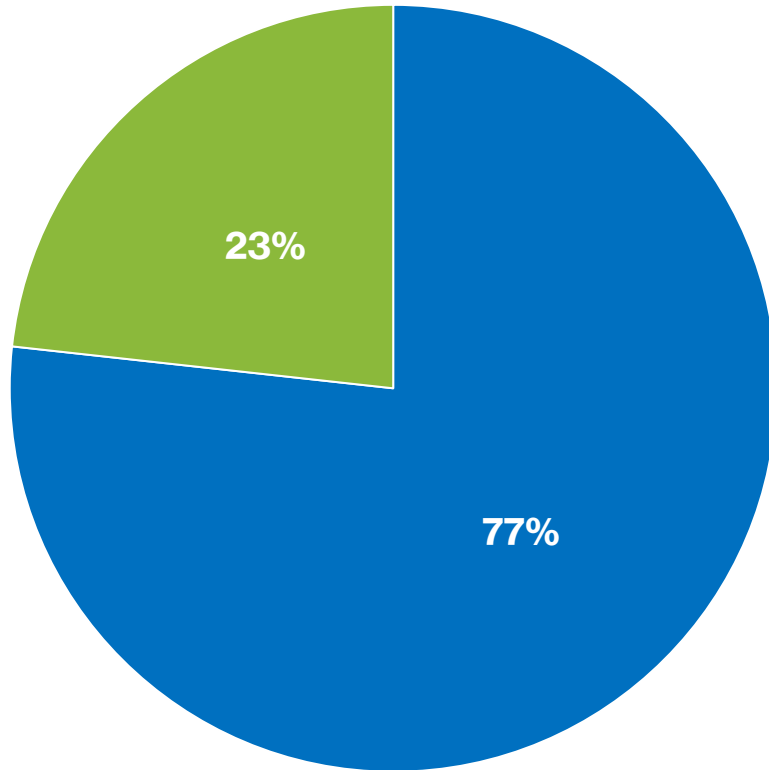


n = 31
Range = \$20,000 - \$125,000
Mean = \$63,242
Median = \$69,240
S.D = \$25,774

Institutions not identified; bars sorted low to high, one bar per responding department. 6 departments reported \$0 for MS students (MS not grant-supported) and are not shown.

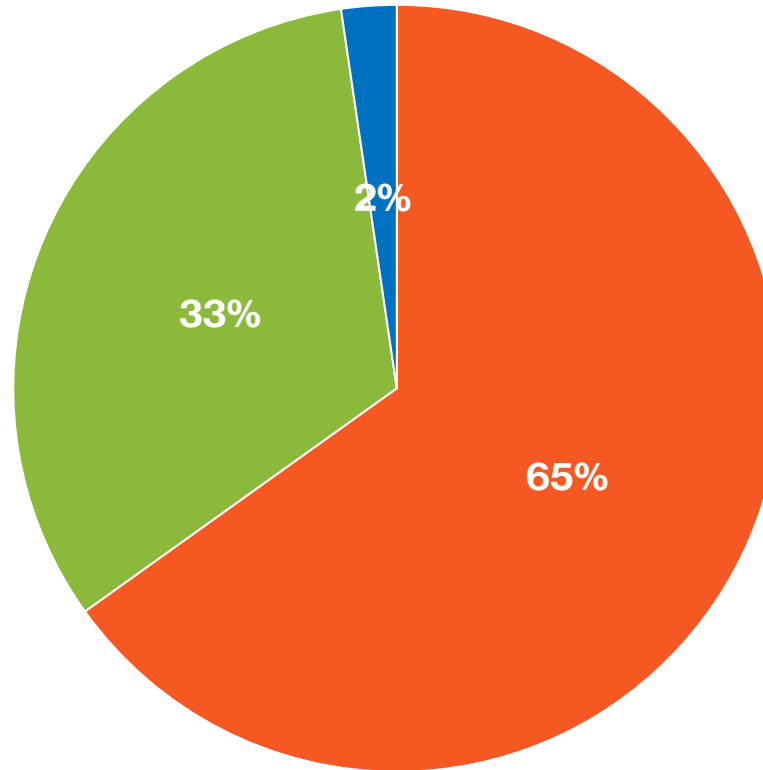
GRADUATE STUDENT POLICIES

MOVING ALLOWANCE OR
RECRUITING BONUS?



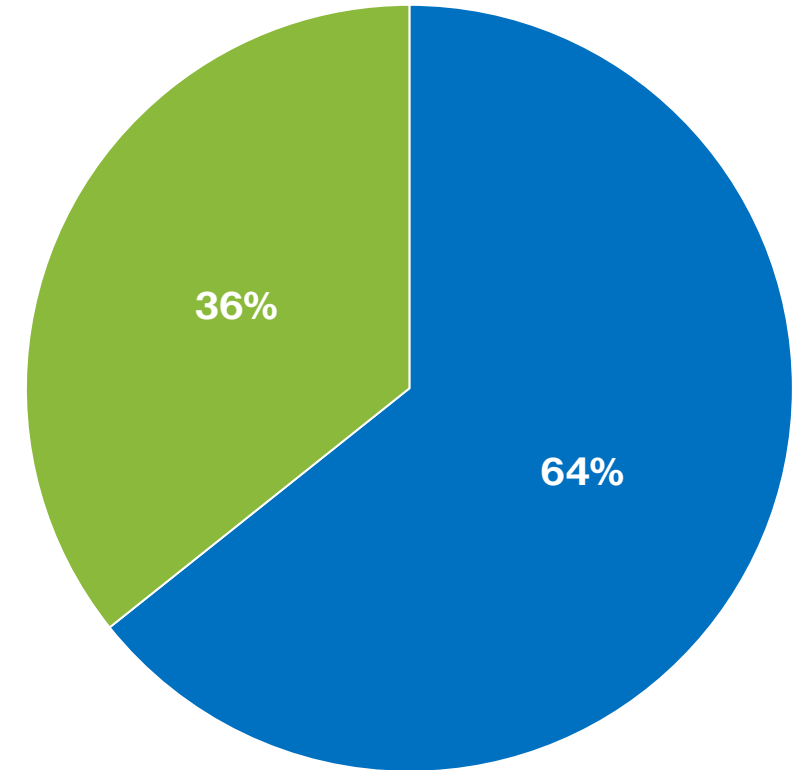
■ No ■ Yes, for some students

STIPENDS INCREASED
ANNUALLY?



■ Yes ■ Sometimes ■ No

GRADUATE STUDENTS
UNIONIZED?

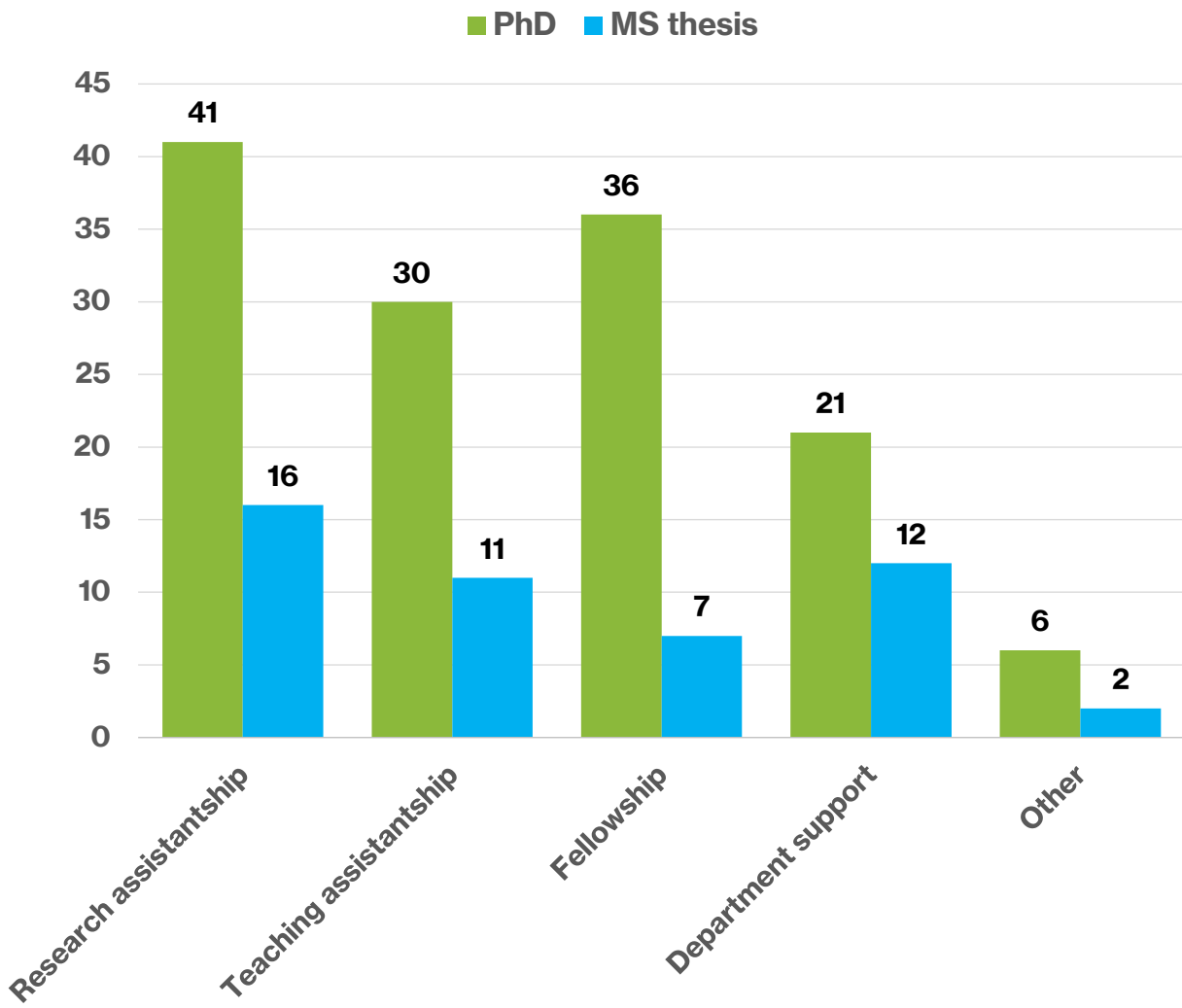


■ No ■ Yes

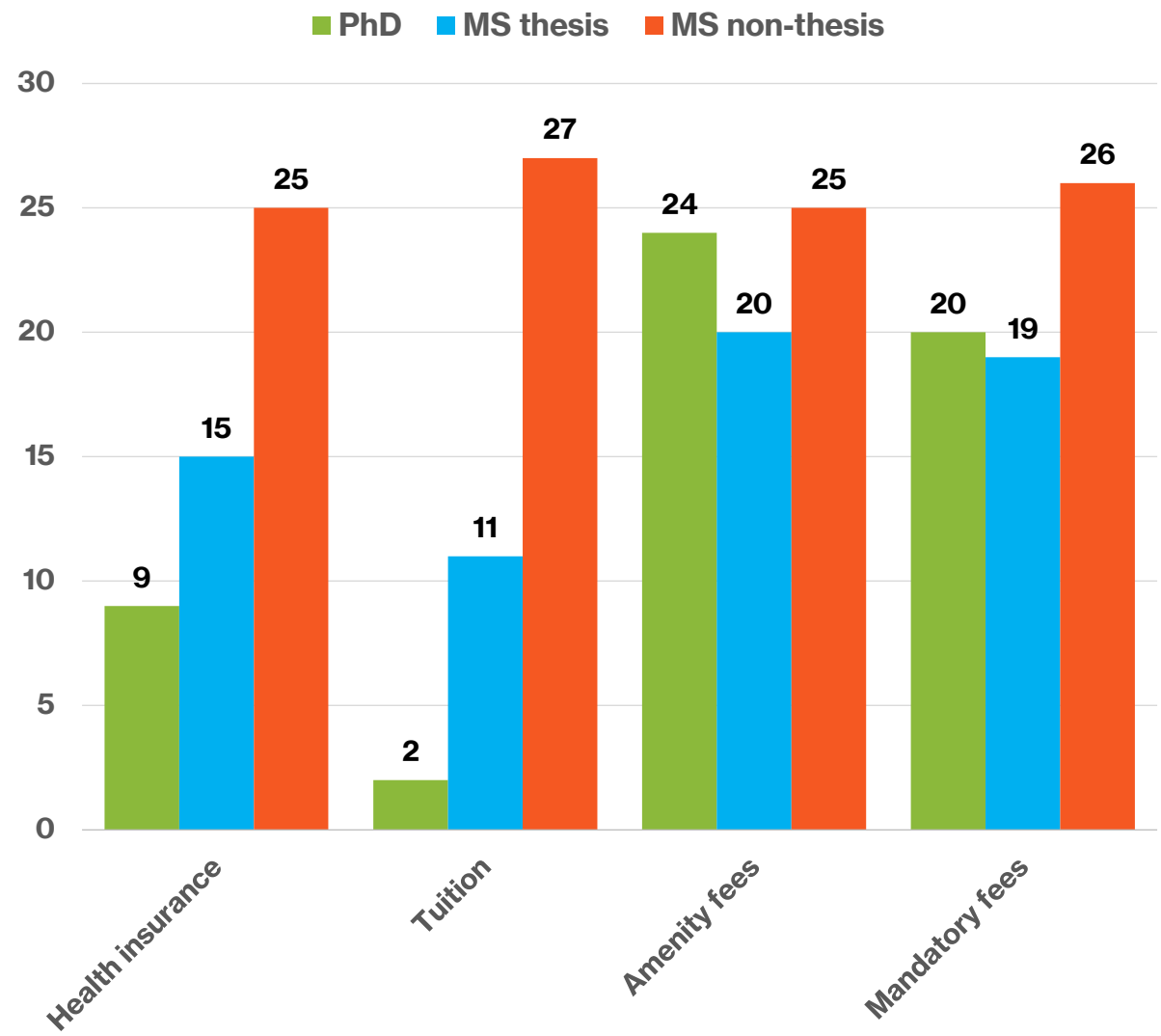
n = 43, 43, 42 respondents (left to right).

HOW GRADUATE STUDENTS ARE FUNDED

FUNDING OFFERED TO INCOMING STUDENTS (# OF DEPARTMENTS)

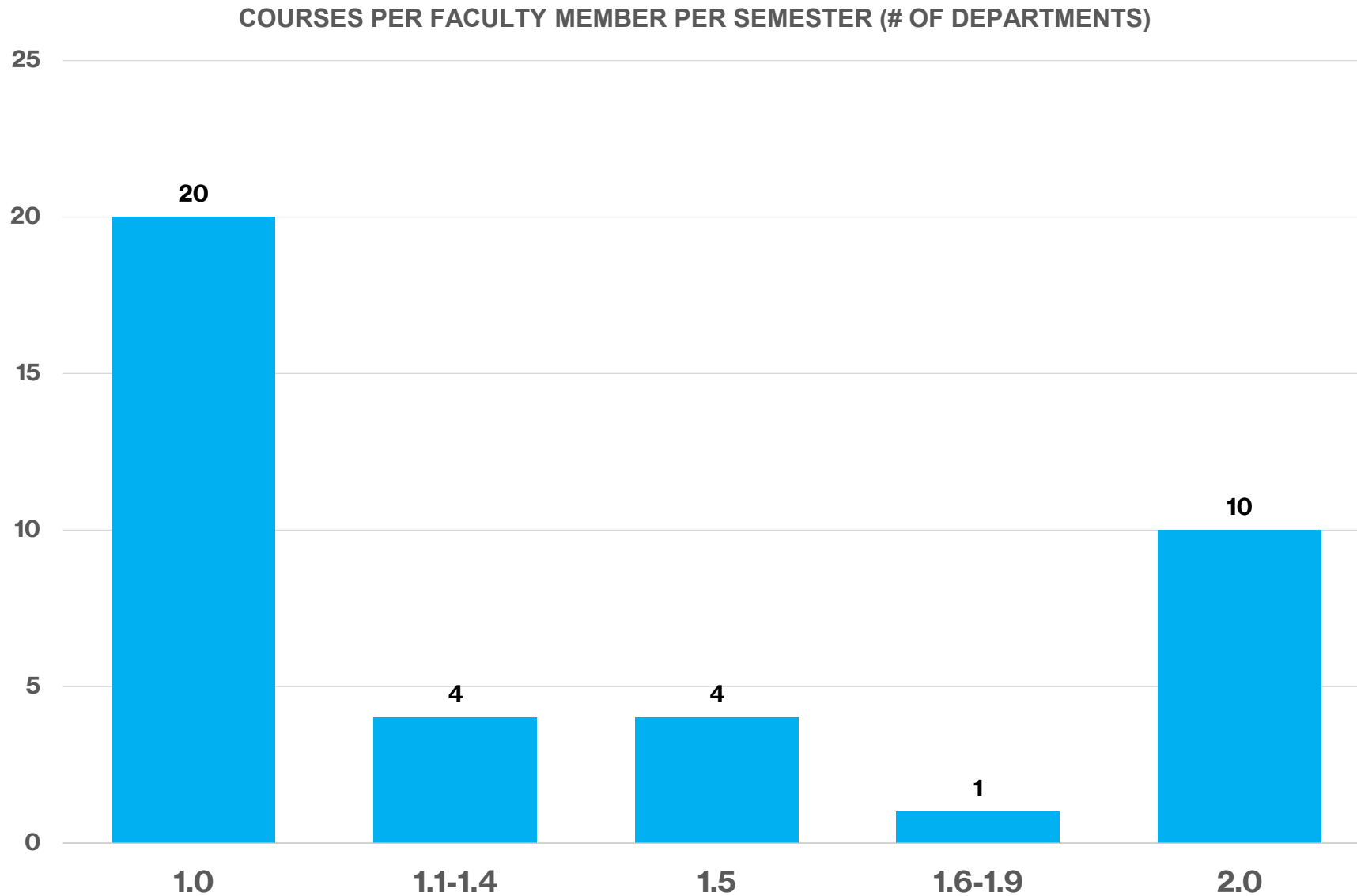


STUDENT PAYS OUT OF POCKET (# OF DEPARTMENTS)



Multiple selections allowed. Out-of-pocket costs fall mainly on non-thesis MS students; PhD students most often pay some fees.

FACULTY TEACHING LOAD

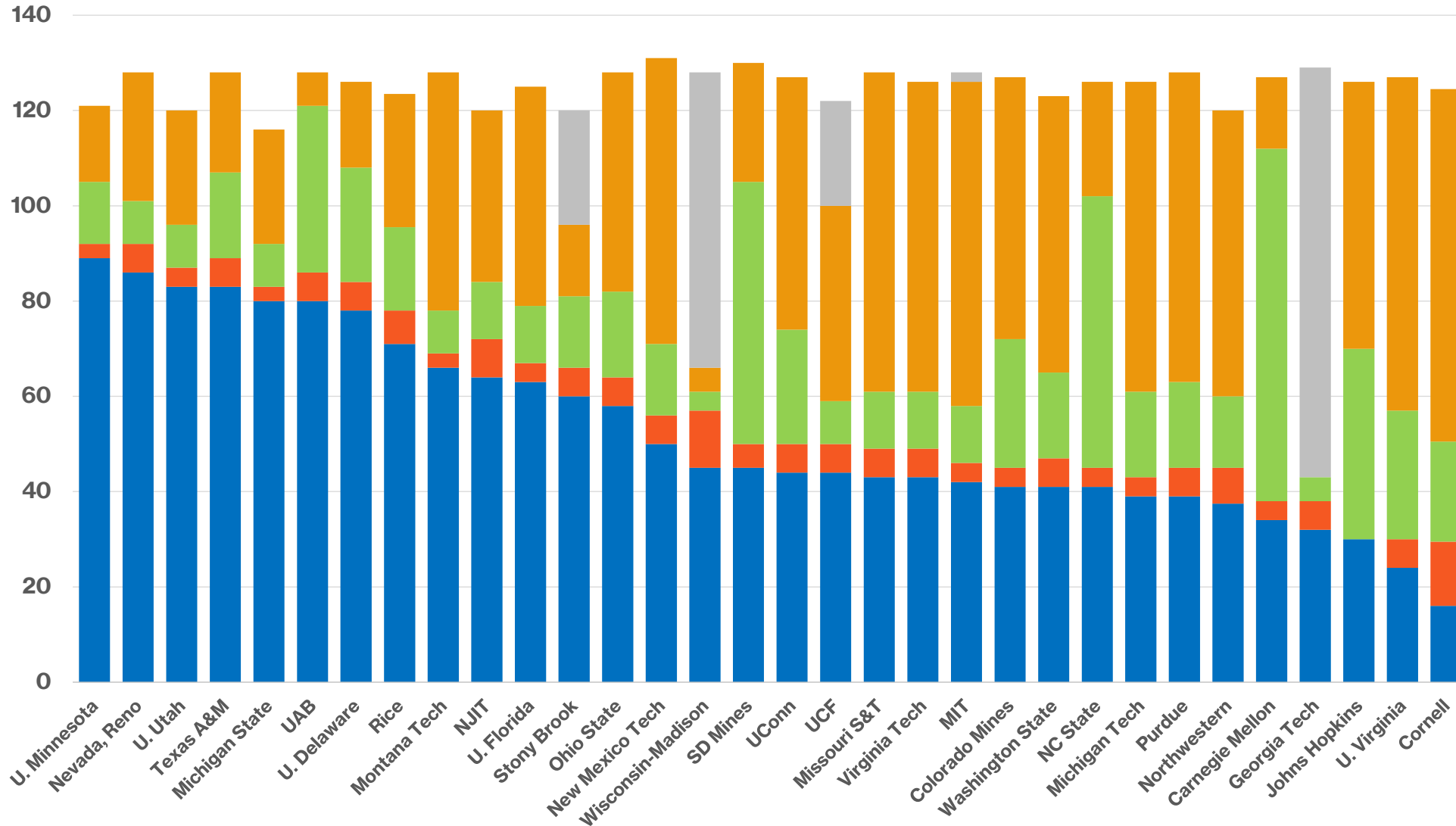


n = 39
Range = 1 - 2
Mean = 1.34
Median = 1
S.D = 0.43

Average for faculty not on leave or sabbatical. One response (18) removed as likely credit hours.

BS DEGREE REQUIREMENTS (SEMESTER CREDIT HOURS)

■ MSE core ■ Capstone ■ Technical electives ■ General education ■ Not itemized



Total credit hours
Median = 126.5 Range: 116-131

MSE core
Median = 44.5 Range: 16-89

Capstone
Median = 6 Range: 3-13.5

n = 32. Sorted by MSE core. "Not itemized" = reported total minus the listed components. Two course-count responses removed.

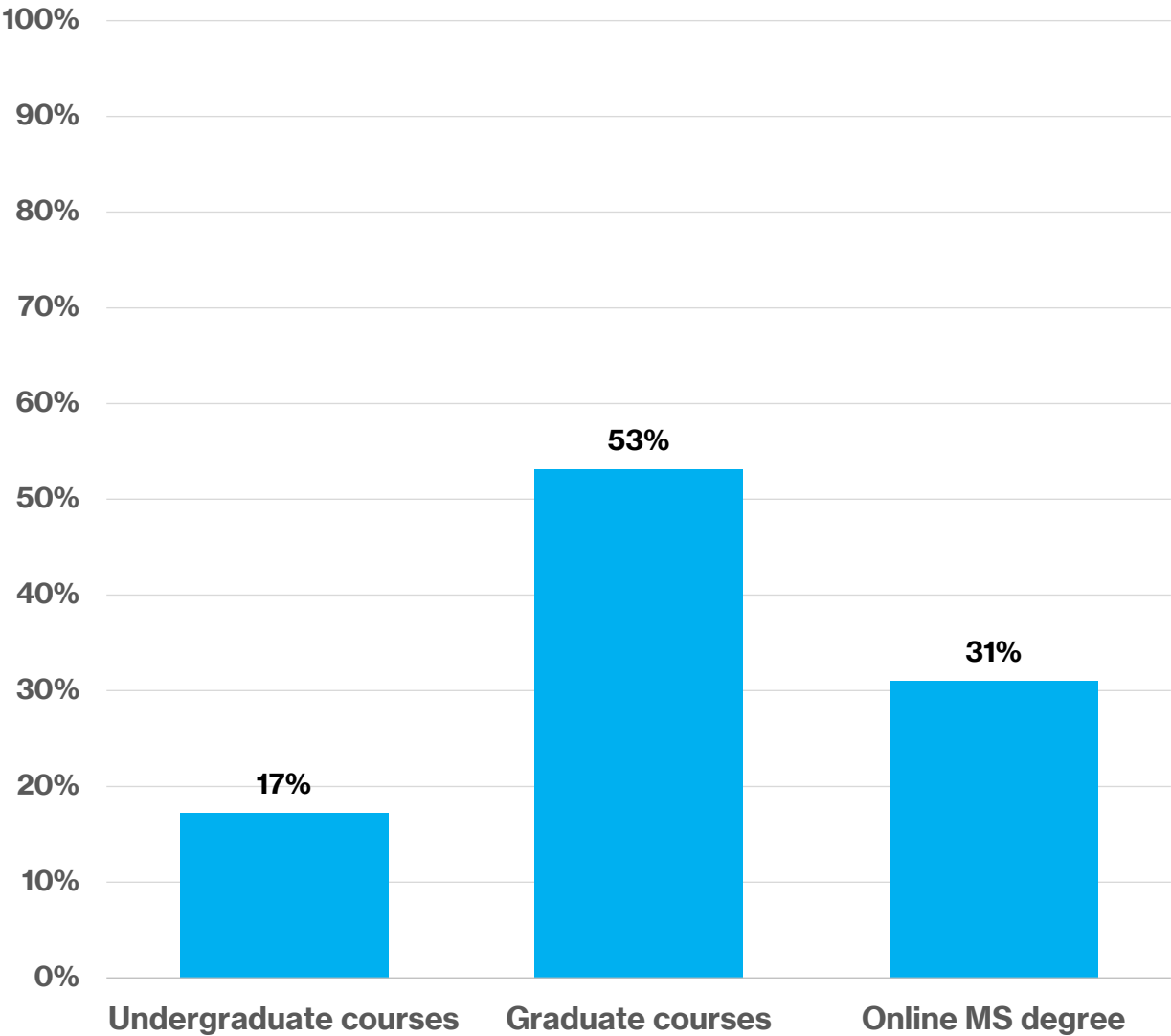
GRADUATE CREDIT REQUIREMENTS AND ONLINE DELIVERY

Degree	n	Min	Median	Max
MS thesis	38	9	30	60
MS non-thesis	37	9	30	51
PhD	37	9	34	96

Graded semester credit hours required.

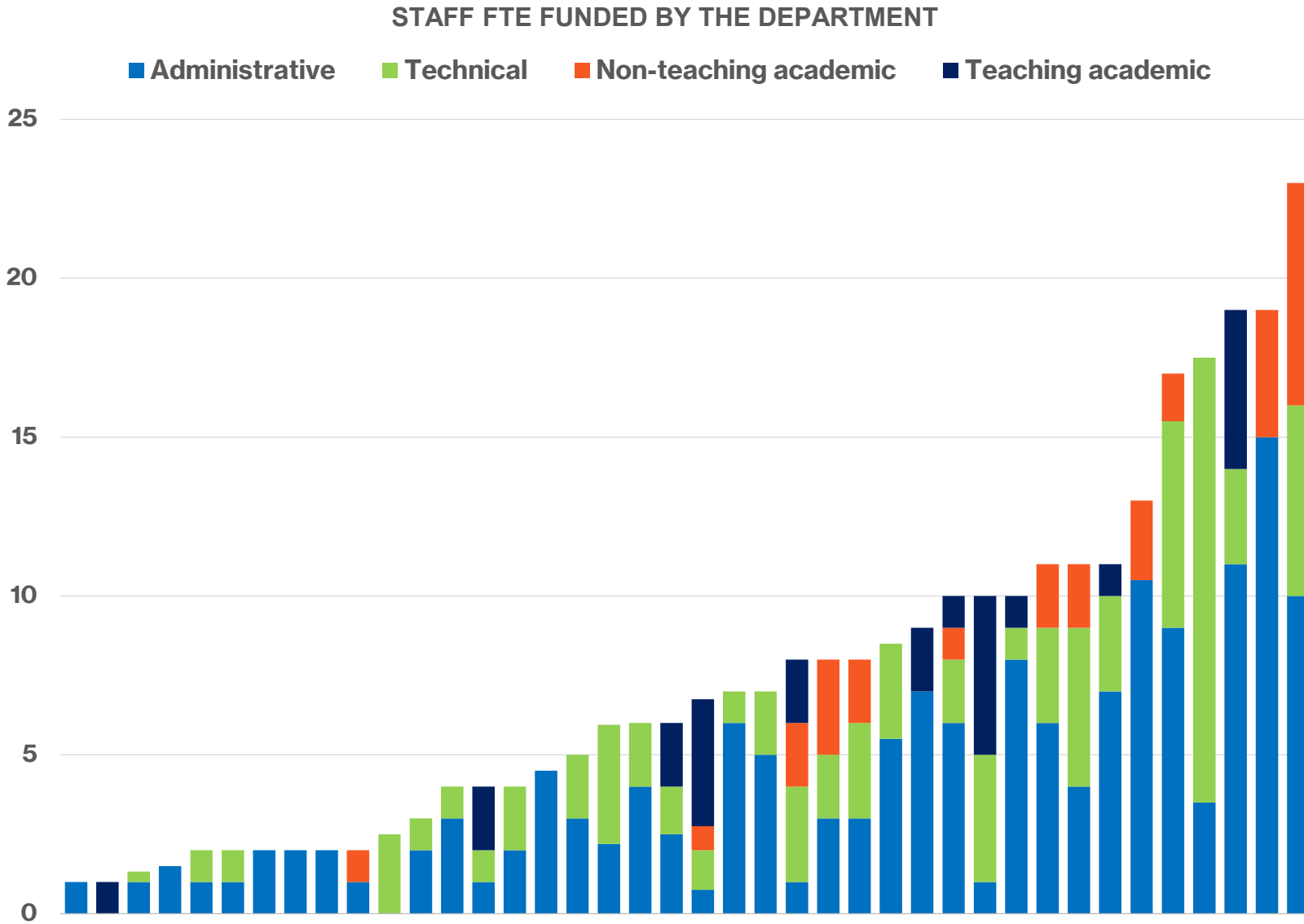
PhD requirements split into two groups: about 30 credits (typically beyond the MS) and 72 or more (typically beyond the BS).

DEPARTMENTS OFFERING DISTANCE EDUCATION

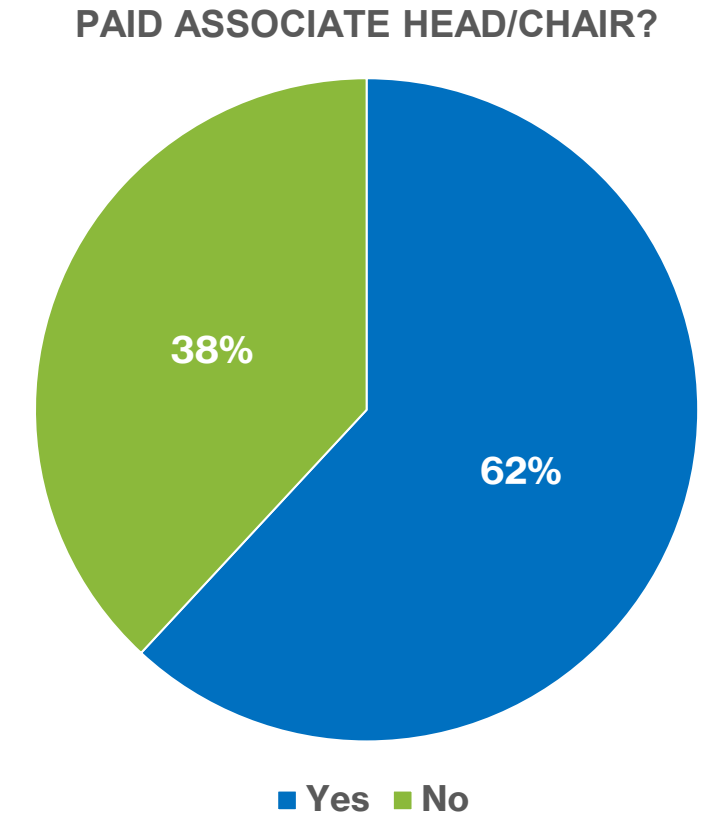


Distance education n = 29, 32, 29. Mixed free-text answers (yes/no/counts) coded as offered if any courses reported.

STAFFING AND LEADERSHIP



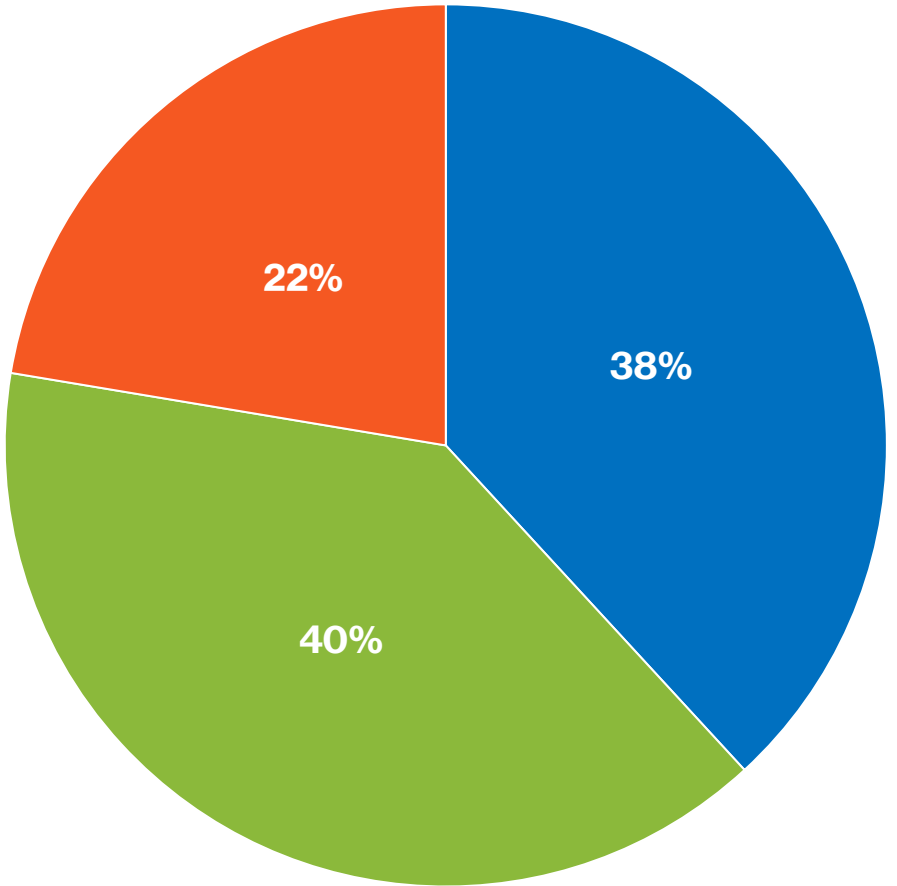
Staff n = 40 (institutions not identified; sorted by total). Associate head n = 42.



Median staff FTE = 6.4
Range: 1-23
Median administrative FTE = 3

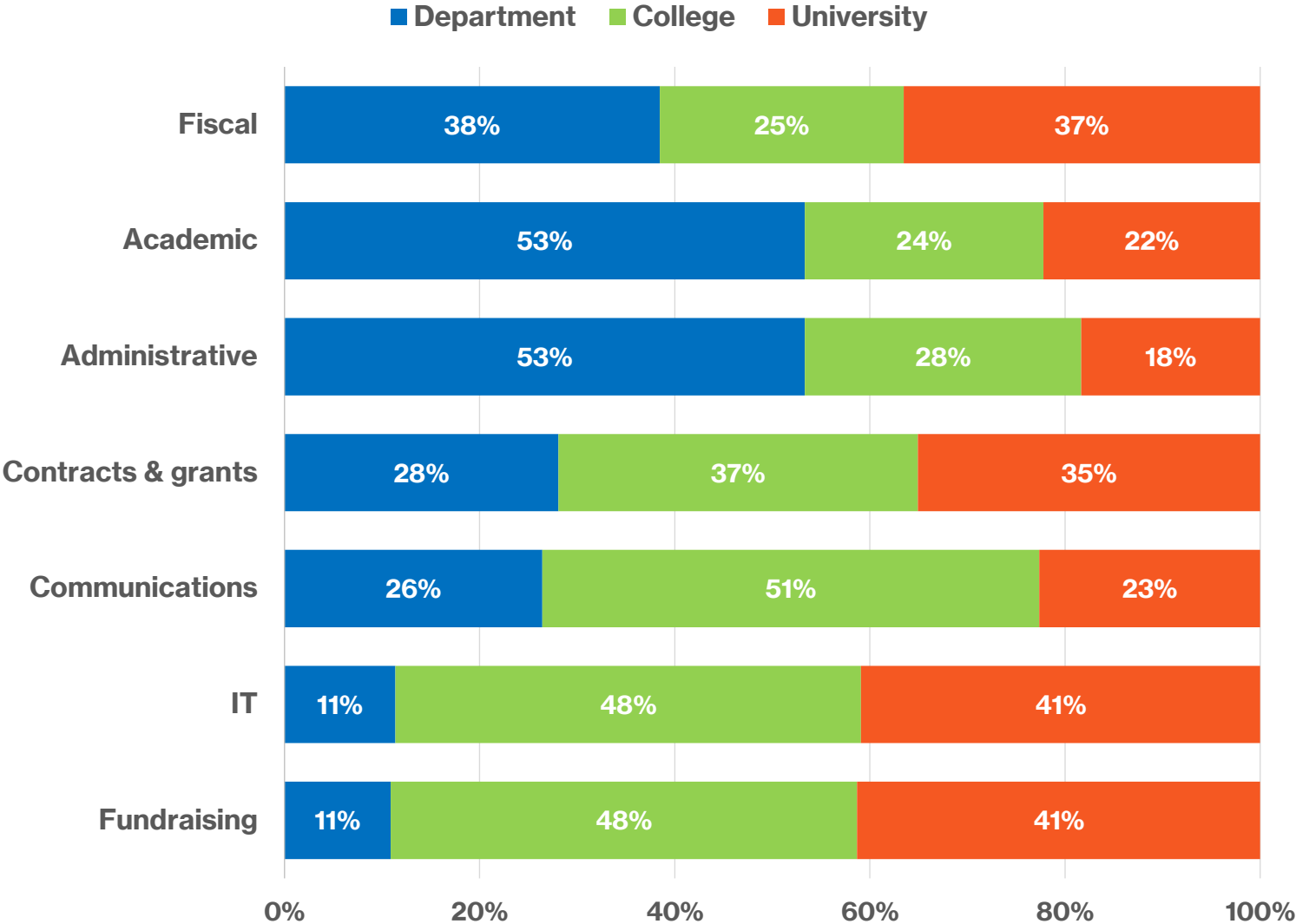
BUDGET MODEL AND WHERE SUPPORT STAFF SIT

UNIVERSITY BUDGET MODEL



■ Legacy / historical ■ Hybrid or other ■ RCM

SOURCE OF SUPPORT STAFF BY FUNCTION (SHARE OF MENTIONS)



Budget model n = 38 (two respondents chose two models; split evenly). Staff source allows multiple selections.