TEXAS TECH UNIVERSITY

Initial Results of Faculty Needs Survey for External Funding Proposals

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March 8, 2016

Survey Characteristics

- Goal: Identify barriers to submitting more external funding proposals

- Faculty focus groups held, which helped to identify 18 key factors associated with grant proposal submissions

- Survey approved by IRB

- Survey sent to 1249 people

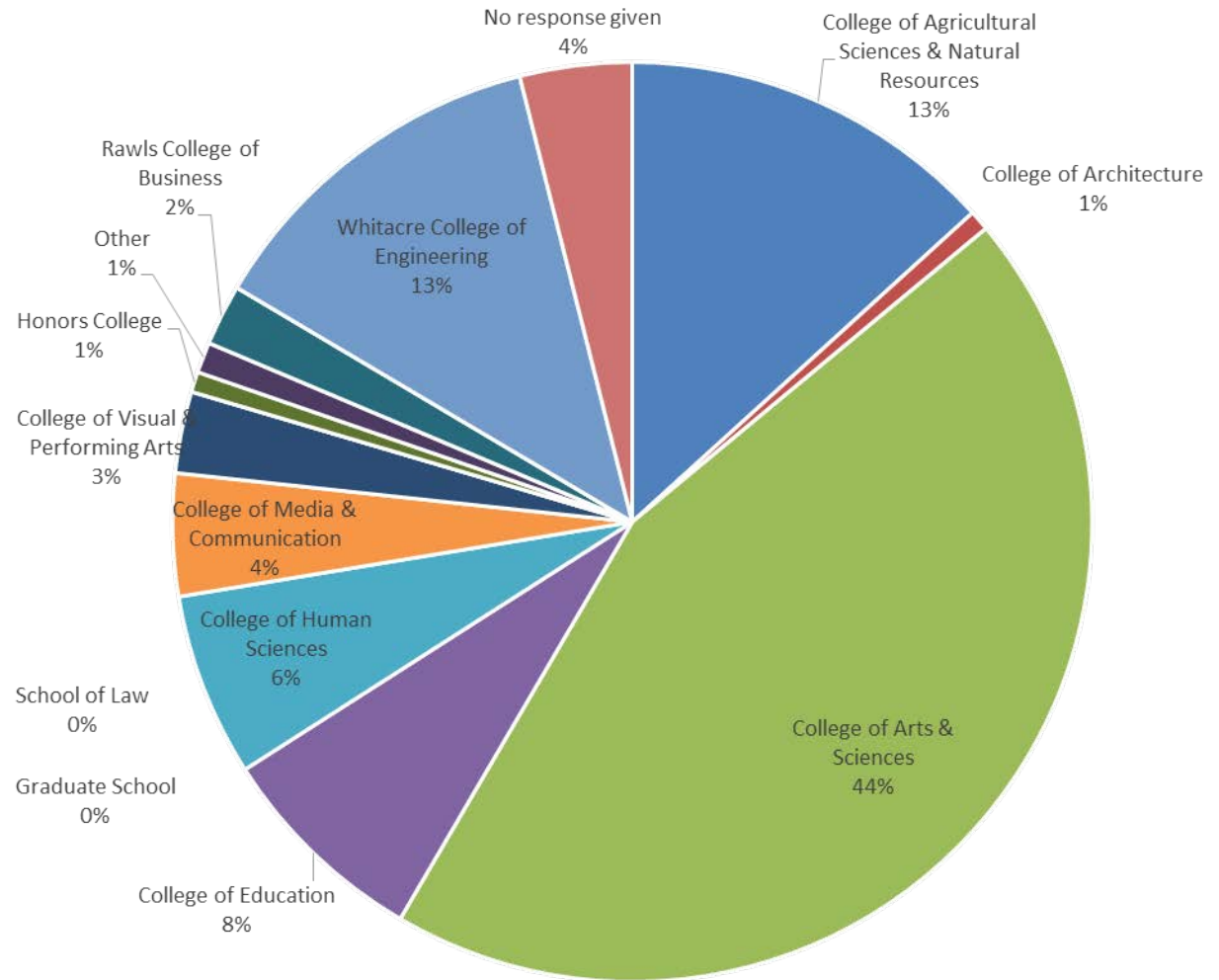- Total of 279 surveys complete enough to use in data analyses

Demographics

College

College Affiliation (n = 279)

	n	% of total
College of Agricultural Sciences & Natural Resources	37	13.3%
College of Architecture	2	0.7%
College of Arts & Sciences	124	44.4%
College of Education	21	7.5%
College of Human Sciences	18	6.5%
College of Media & Communication	12	4.3%
College of Visual & Performing Arts	8	2.9%
Graduate School	0	0.0%
Honors College	2	0.7%
Other	3	1.1%
Rawls College of Business	6	2.2%
School of Law	0	0.0%
Whitacre College of Engineering	35	12.5%
No response given	11	3.9%
Total	279	100%

Pie chart — College Affiliation (n = 279): No response given 4%; College of Agricultural Sciences & Natural Resources 13%; College of Architecture 1%; College of Arts & Sciences 44%; College of Education 8%; Graduate School 0%; College of Human Sciences 6%; College of Media & Communication 4%; College of Visual & Performing Arts 3%; School of Law 0%; Honors College 1%; Other 1%; Rawls College of Business 2%; Whitacre College of Engineering 13%.

Funding Experience at TTU

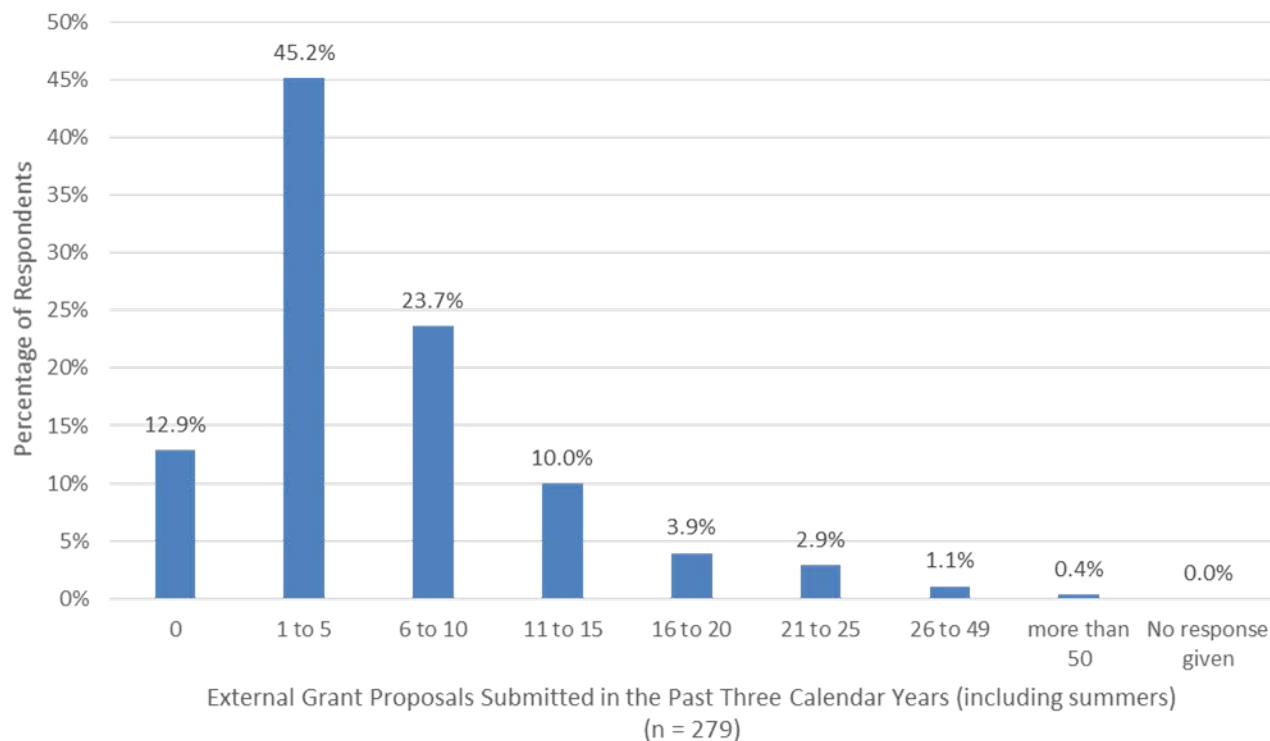|	n	% of total
Have applied and never received funding	47	16.8%
Have never applied for funding	14	5.0%
Have applied and received funding	218	78.1%
No response given	0	0.0%
Total	279	100%

Funding Experience at TTU (n = 279)
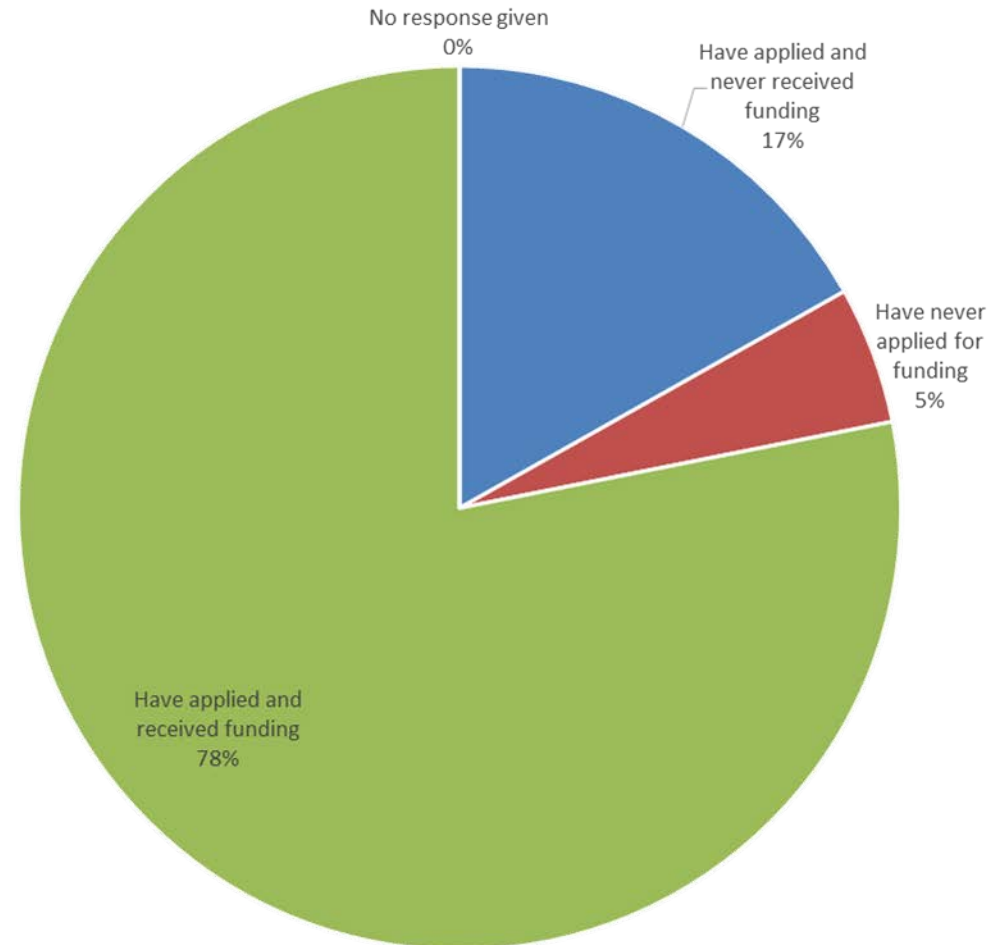
External Grant Proposals Submitted in the Past Three Calendar Years (Including Summers)

	n	% of total
0	36	12.9%
1 to 5	126	45.2%
6 to 10	66	23.7%
11 to 15	28	10.0%
16 to 20	11	3.9%
21 to 25	8	2.9%
26 to 49	3	1.1%
more than 50	1	0.4%
No response given	0	0.0%
Total	**279**	**100%**

External Grant Proposals Submitted in the Past Three Calendar Years (including summers) (n = 279)

Professorial Rank

	n	% of total
Assistant Professor	87	31.2%
Associate Professor	94	33.7%
Full Professor	86	30.8%
Not applicable	9	3.2%
No response given	3	1.1%
Total	279	100%

Professorial Rank (n = 279)

Not applicable
3%

No response given
1%

Assistant Professor
31%

Full Professor
31%

Associate Professor
34%
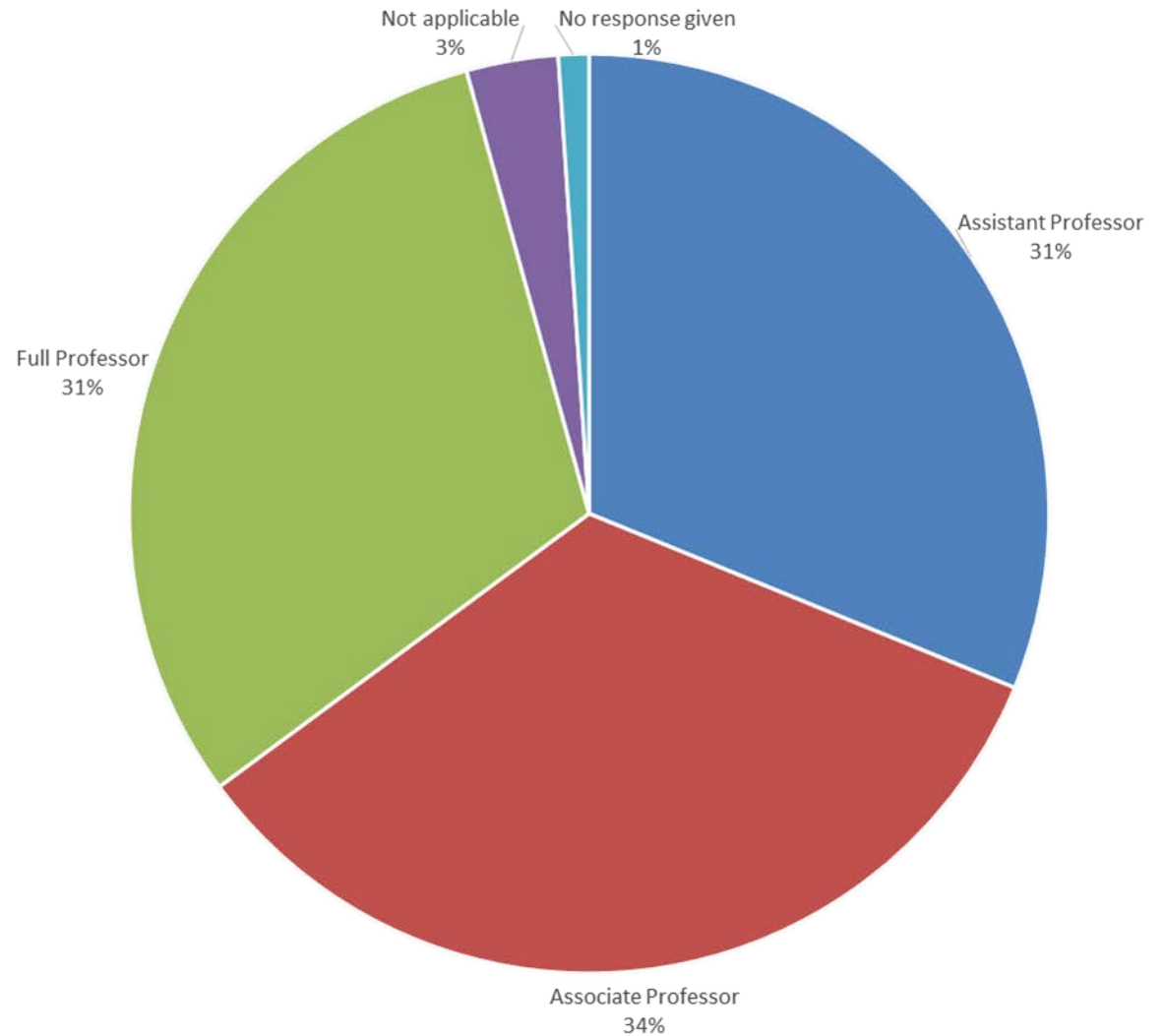
Total Award of Largest Single Grant in Past Five Years

	n	% of total
0- $5,000	70	25.1%
$5,000 - $10,000	11	3.9%
$10,000 - $50,000	40	14.3%
$50,000 - $100,000	23	8.2%
$100,000 - $250,000	26	9.3%
$250,000 - $500,000	42	15.1%
$500,000 - $1,000,000	29	10.4%
$1,000,000+	30	10.8%
No response given	8	2.9%
Total	279	100%

Total Award of Largest Single Grant in Past Five Years (n = 279)
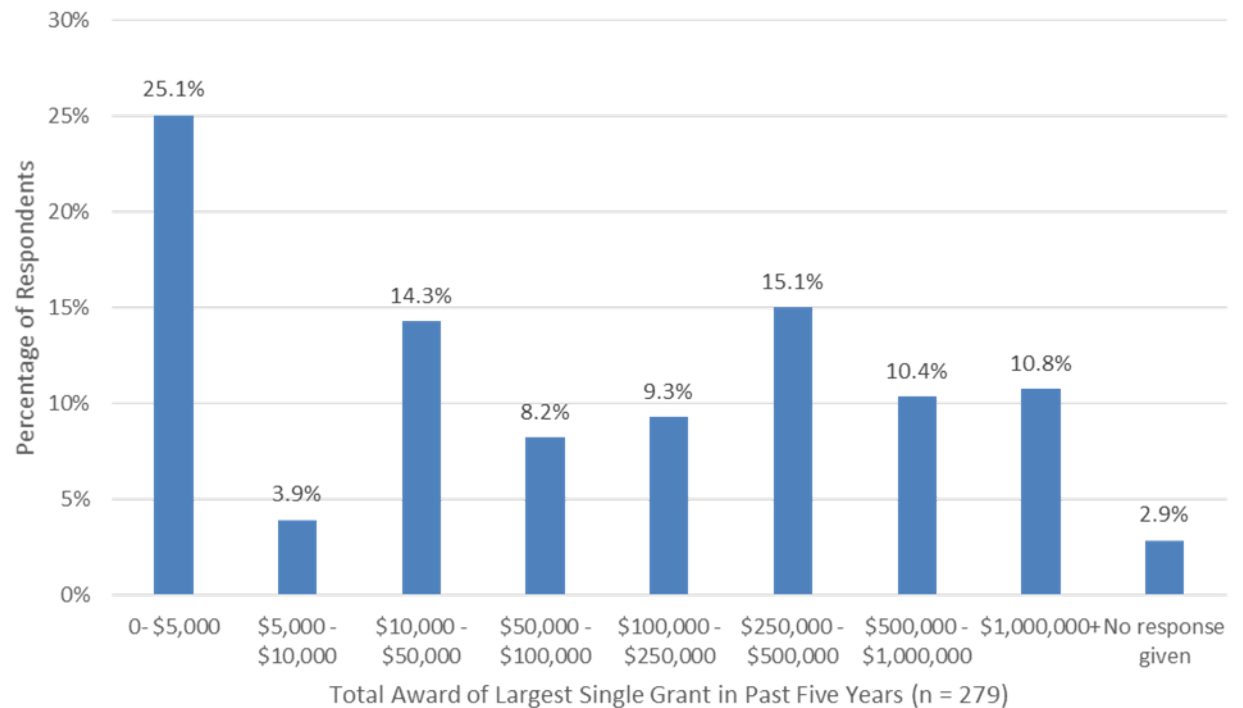
External Grant Proposals Submitted since Arrival at TTU

	n	% of total
0	14	5.0%
1 to 5	85	30.5%
6 to 10	51	18.3%
11 to 15	29	10.4%
16 to 20	22	7.9%
21 to 25	15	5.4%
26 to 30	7	2.5%
31 to 35	7	2.5%
36 to 40	6	2.2%
41 to 45	7	2.5%
46 to 50	5	1.8%
more than 50	30	10.8%
No response given	1	0.4%
Total	279	100%

External Grant Proposals Submitted since Arrival at TTU (n = 279)
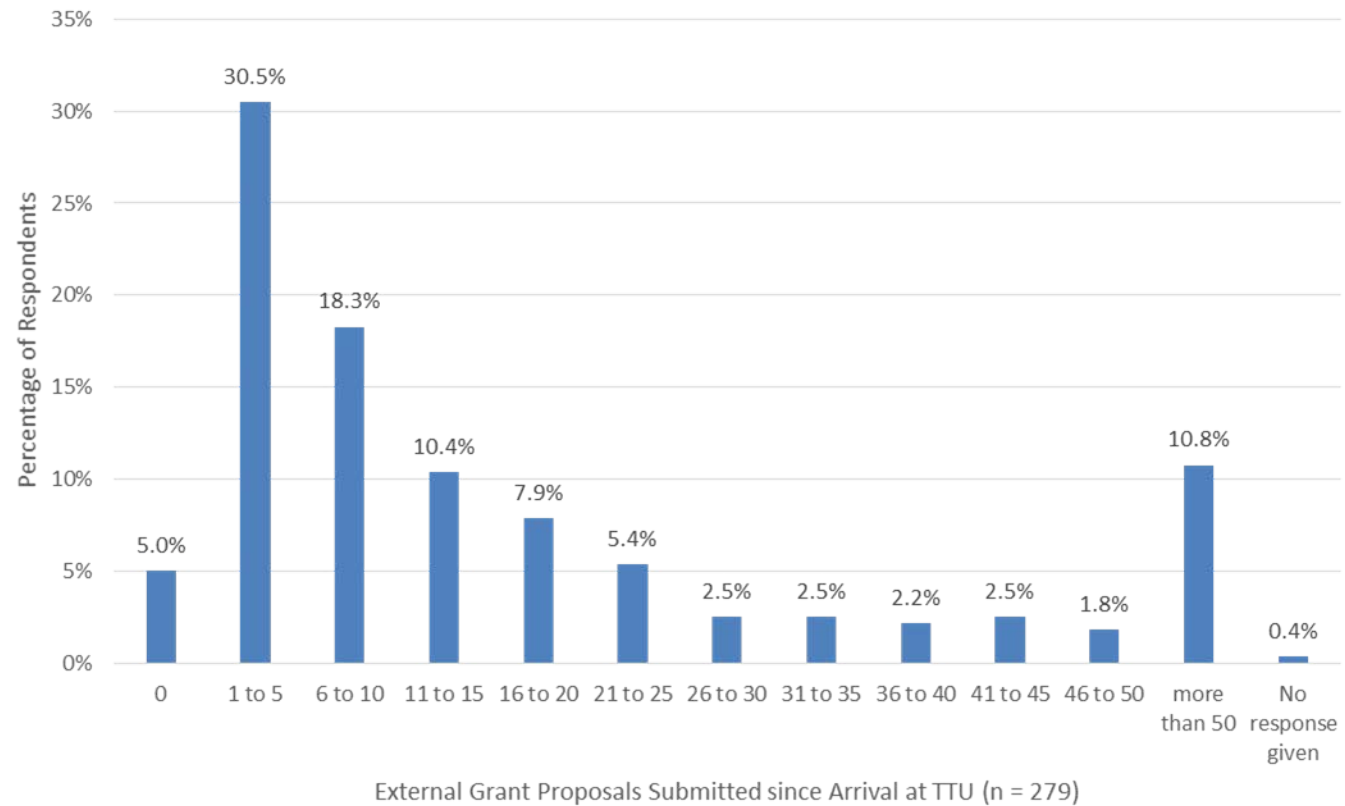
Years as a Faculty Member at TTU

	n	% of total
Less than 1 year	18	6.5%
1 to 5	89	31.9%
6 to 10	59	21.1%
11 to 15	43	15.4%
16 to 20	23	8.2%
21 to 25	20	7.2%
26 to 30	17	6.1%
31 to 35	7	2.5%
36 to 40	0	0.0%
More than 40 years	2	0.7%
No response given	1	0.4%
Total	279	100%

Years as a Faculty Member at TTU (n = 279)
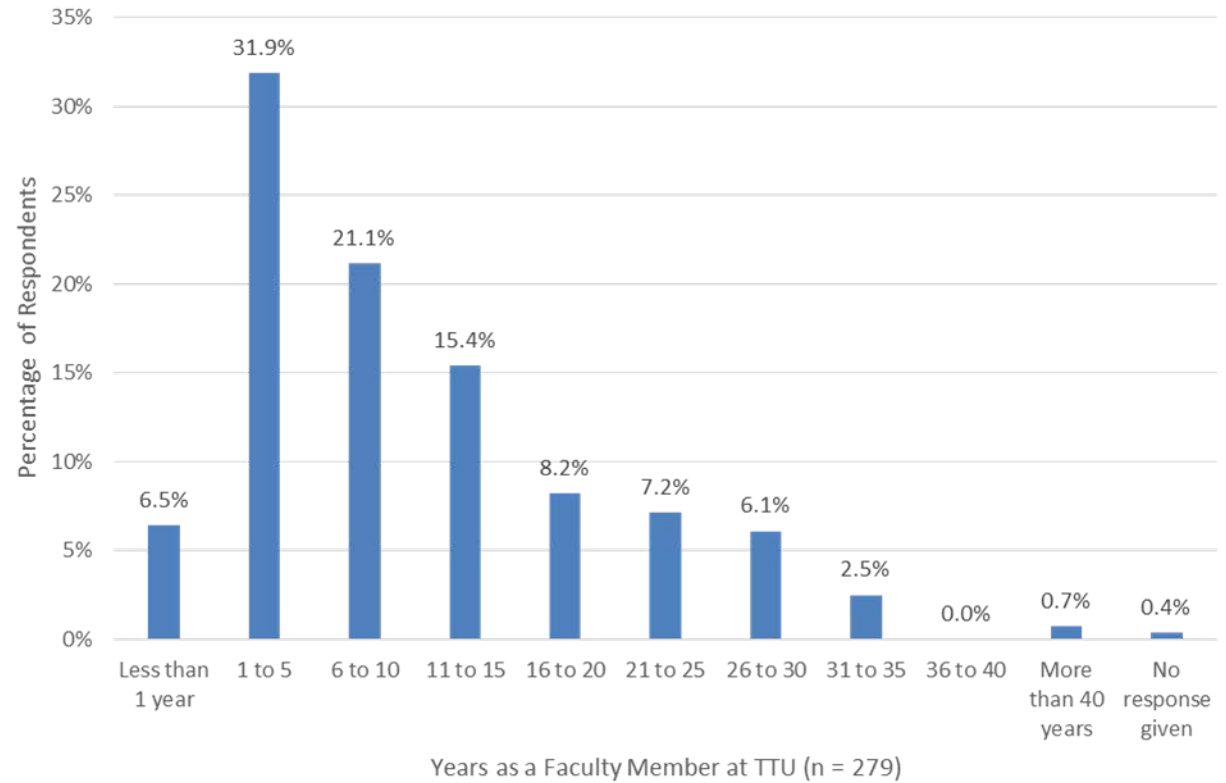
Field

	n	% of total
Arts	7	2.5%
Business	6	2.2%
Engineering	37	13.3%
Humanities	28	10.0%
Law	0	0.0%
Natural and Formal Sciences	93	33.3%
Social Sciences	80	28.7%
Other	25	9.0%
No response given	3	1.1%
Total	279	100%

Field (n = 279)

Pie chart with segments:
- No response given 1%
- Arts 3%
- Business 2%
- Engineering 13%
- Humanities 10%
- Law 0%
- Natural and Formal Sciences 33%
- Social Sciences 29%
- Other 9%
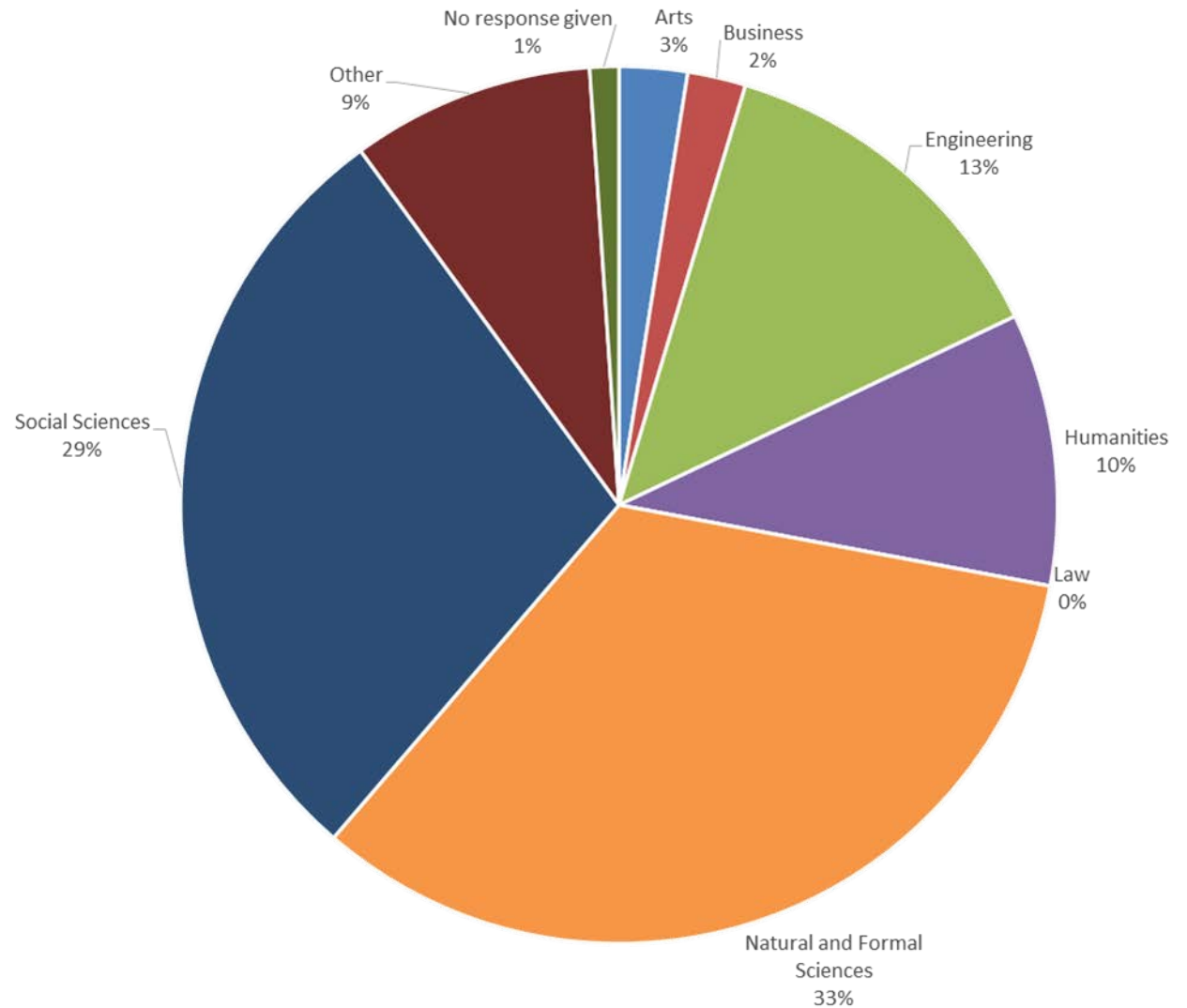
Tenure Status

	n	% of total
Tenured	171	61.3%
Tenure-track	87	31.2%
Not on tenure-track	19	6.8%
No response given	2	0.7%
Total	279	100%

Tenure Status (n = 279)

No response given 1%

Not on tenure-track 7%

Tenure-track 31%

Tenured 61%
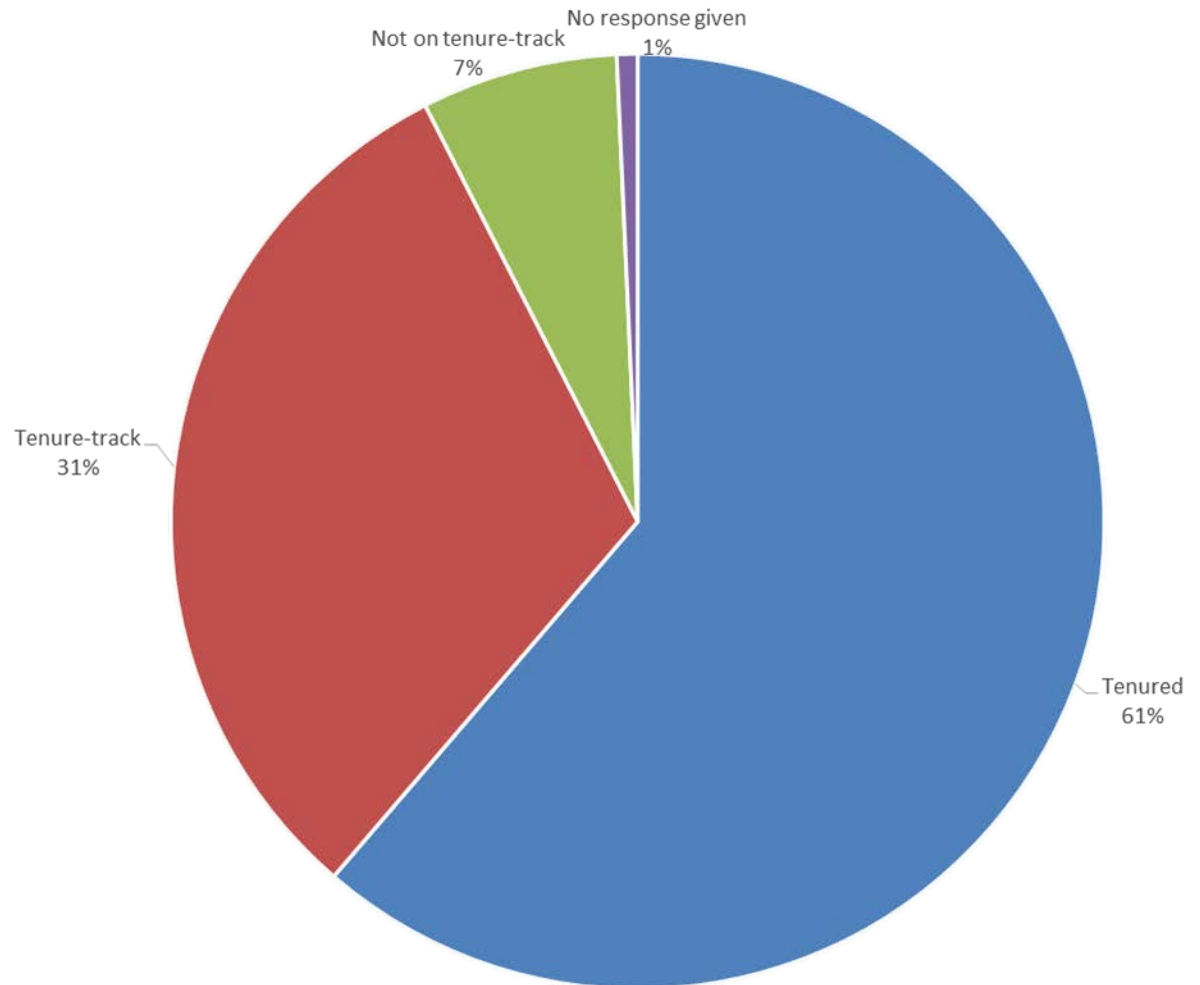
Gender

	n	% of total
Female	81	29.0%
Male	147	52.7%
Other	1	0.4%
Would prefer not to specify	24	8.6%
No response given	26	9.3%
Total	279	100%

Gender (n = 279)

No response given 9%

Would prefer not to specify 9%

Female 29%

Other 0%

Male 53%
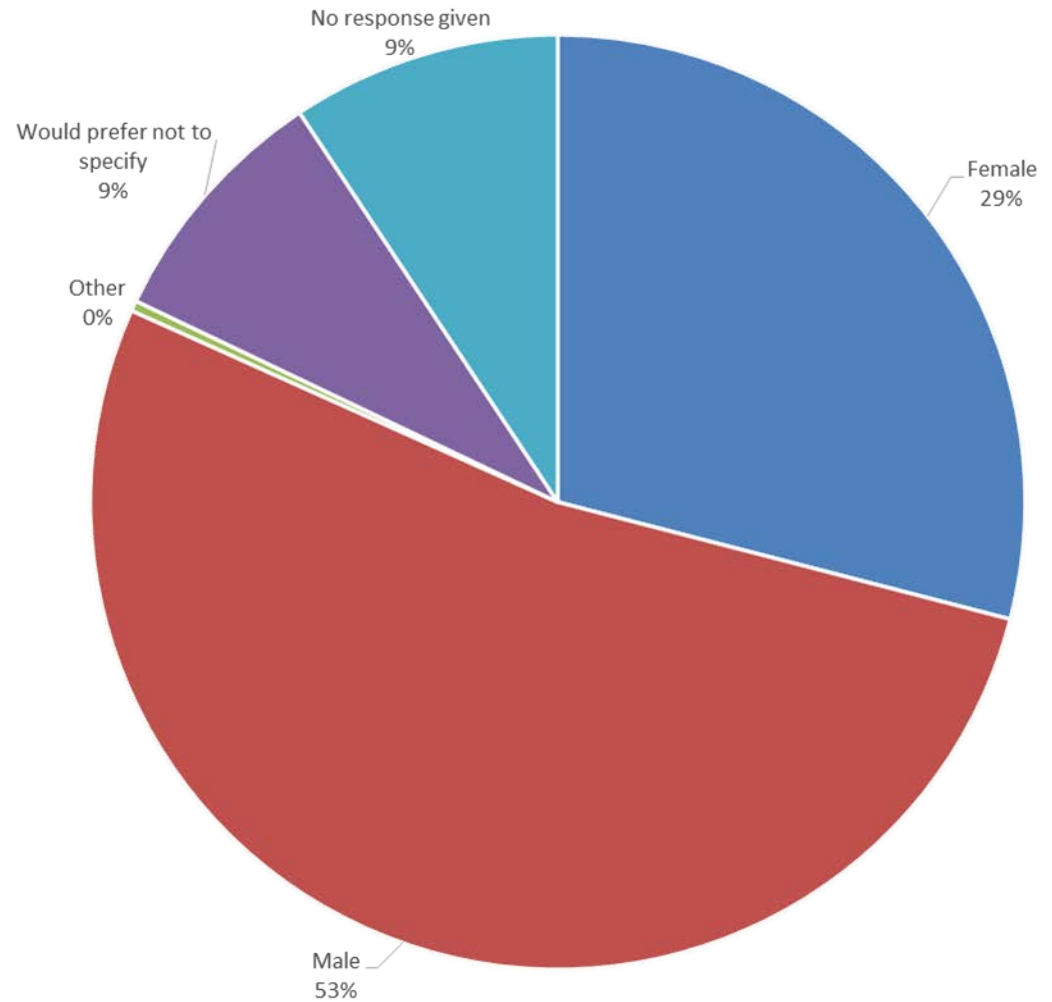
Ethnicity

	n	% of total
African American Multiracial	2	0.7%
American Indian or Alaskan Native	1	0.4%
Asian or Pacific Islander	17	6.1%
Black- Non-Hispanic	0	0.0%
Hispanic	13	4.7%
International	5	1.8%
Native Hawaiian/Pacific Islander	0	0.0%
White- Non-Hispanic	175	62.7%
Other	3	1.1%
Would prefer not to specify	32	11.5%
No response given	31	11.1%
Total	279	100%

Ethnicity (n = 279)

- American Indian or Alaskan Native 0%
- African American Multiracial 1%
- Asian or Pacific Islander 6%
- Black- Non-Hispanic 0%
- Hispanic 5%
- International 2%
- Native Hawaiian/Pacific Islander 0%
- No response given 11%
- Would prefer not to specify 11%
- Other 1%
- White- Non-Hispanic 63%
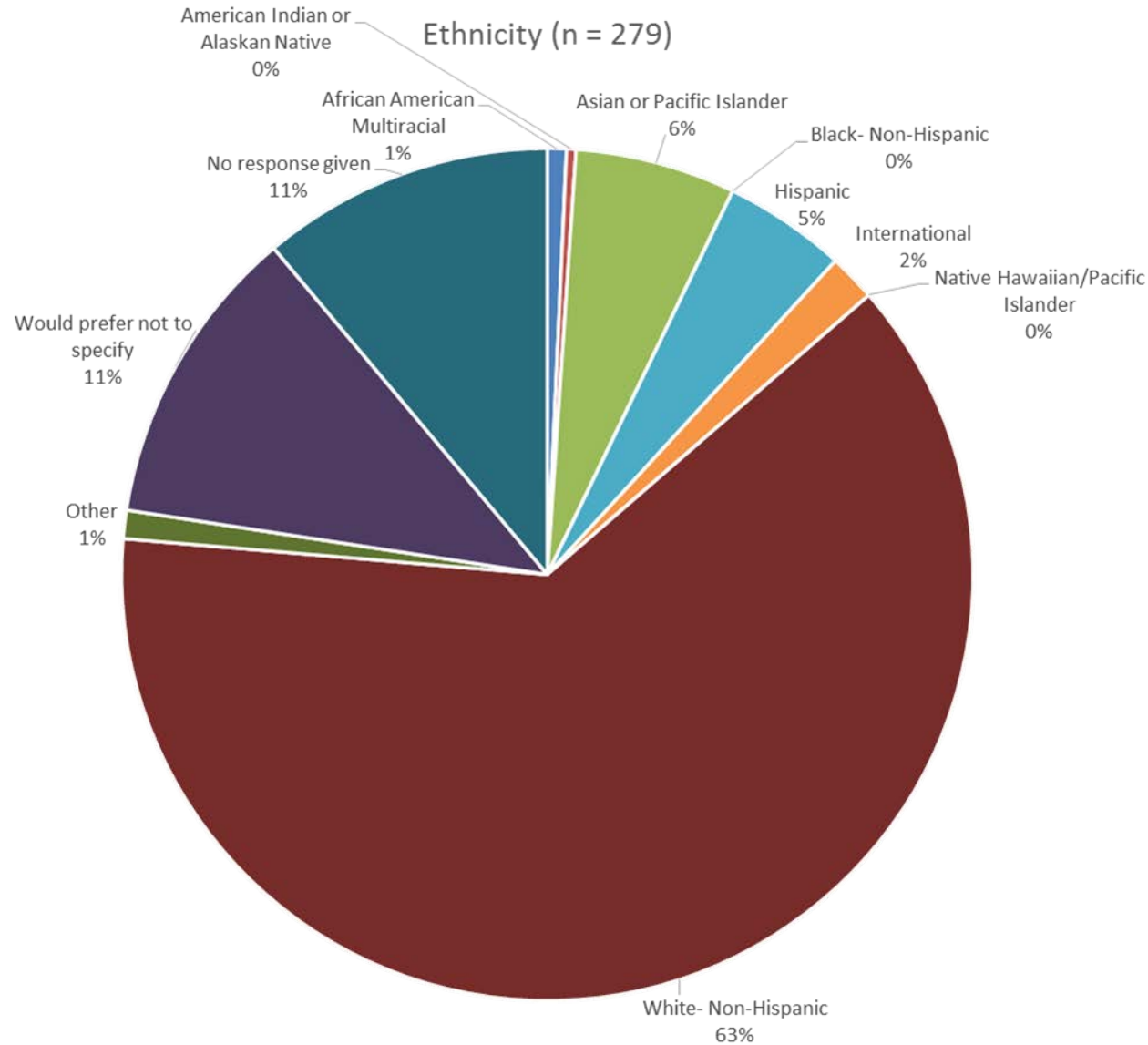
Factor Severity Ratings

Factors and Definitions

Factor	Definition
Balancing the time for teaching, research, and service	**finding time to work on grant proposals**
Building collaborations	*organizing research teams, interdisciplinary research, networking, searchable databases of experts within the TTU System*
Cost sharing	*policy and process for university-provided monetary support used as a match for sponsored projects*
Department-level or college-level grant administration support	*accounting support, grant management, equipment bids, purchasing, financial and award close-out reports, p-card use and reconciliation, etc.*
Different expectations between faculty and any office staff in the fulfillment of grant-associated tasks including finding, submitting, and administrating grants	*working on a common grant-associated task from different perspectives and interpretations of policy and procedure*
Facilities and administrative (F&A) costs	*returns, reductions, waivers, etc.*
Faculty morale	**enthusiasm, perceived value of faculty research activities, confidence, shared vision**
Financial support to start or continue research	**seed funds, pilot data, start-up funding, bridge funding, travel to funding agencies, etc.**
Finding opportunities and responding by the deadline	*learning about relevant requests for proposals, availability of funds in discipline, searchable databases, having enough time to respond to solicitation*
Incentives	**motivation for and benefits of grant submissions and awards**
Infrastructure & student support	**availability and quality of university research facilities and services, space and stipends for graduate students and postdocs, graduate student support services**
Institutional Review Board (IRB)	*policies, procedures, training associated with the protection of human research participants*
Non-financial compliance	*policies, procedures, training, tools for responsible conduct of research, financial disclosures, safety, effort certification, export control, animal care services/IACUC, etc. This excludes Institutional Review Board*
Post-Award grant administration	*Accounting Services (formerly SPAR and ORA), award set up: translation of approved budget into institutional account codes and Banner, research accounts, moving money between budget pools, billing and financial reporting, audit oversight, award closeout, etc.*
Pre-Award grant administration	*Office of Research Services (ORS), developing and preparing budgets and agreements, proposal routing and review through Cayuse, meeting solicitation requirements, proposal approval and submission, award negotiation and acceptance, etc.*
Proposal development support	*assistance with writing and submitting proposals, for example, grant specialists and editors, critiques, understanding requests for proposals, templates, writing ancillary documents, etc.*
Training and mentorship	*development of skills and experience in areas such as idea development, grantsmanship, proposal development and submission process, budgeting and compliance, award administration, etc.*
University-level project administration support	*grant-related tasks not directly related to the research such as paperwork/electronic forms, hiring and training personnel, project and budget management, submitting agency reports, etc.*

Severity Ratings of Factors

- Participants rated the extent to which each of the factors is a barrier to their submission of more external grant proposals.

- 0 = not a barrier, 100 = severe barrier

Severity Ratings of Factors- All Participants

Factor	n	Mean Rating	SD
Balancing the time for teaching, research, and service	274	75.15	24.94
Infrastructure & student support	261	57.92	31.46
Financial support to start or continue research	261	57.44	29.89
Faculty morale	272	54.53	32.69
Incentives	266	53.06	32.35
Post-Award grant administration	231	49.09	29.53
University-level project administration support	254	47.63	29.88
Institutional Review Board (IRB)	201	45.86	33.69
Department-level or college-level grant administration support	265	45.02	30.64
Proposal development support	266	44.88	29.58
Finding opportunities and responding by the deadline	271	44.82	30.66
Training and mentorship	262	44.58	29.56
Building collaborations	255	44.42	28.97
Facilities and administrative (F&A) costs	247	44.36	30.14
Different expectations between faculty and any office staff in the fulfillment of grant-associated tasks including finding, submitting, and administrating grants	246	42.91	27.38
Cost sharing	227	42.53	27.67
Pre-Award grant administration	260	40.27	28.63
Non-financial compliance	246	38.74	28.87

0 = not a barrier
100 = severe barrier

Severity Ratings of Factors-
All Participants

Mean Severity Rating of All Factors
(total N = 279; n for each factor 201 - 274)
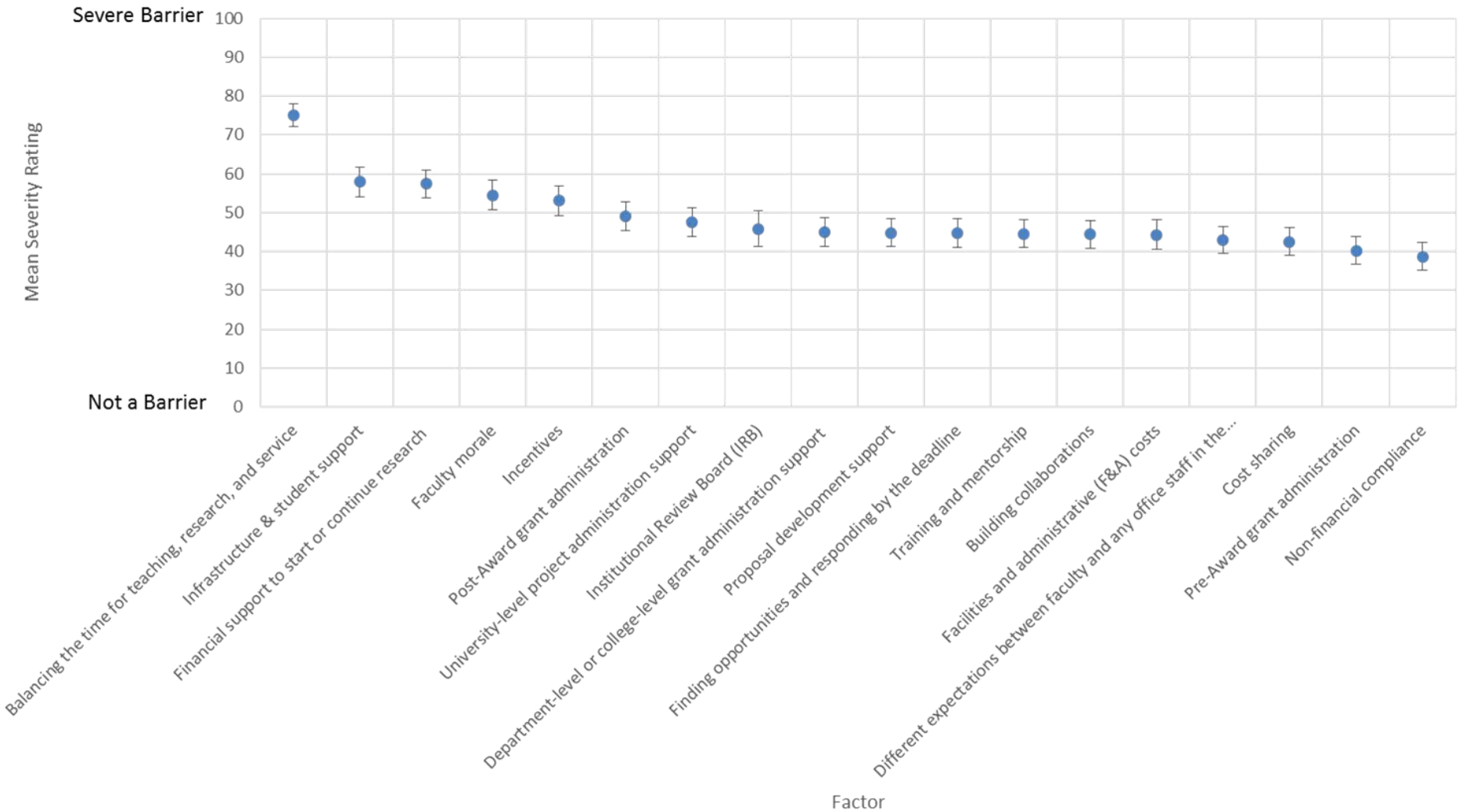
Error bars represent the 95% confidence interval for each factor

Factor Rankings

Rankings of Factors that would Enable More Proposal Submissions

- Participants ranked which factors would make the biggest different in enabling them to submit more external grant proposals.

- 1 = ranked first, 18 = ranked last

# Rankings of Factors that would Enable More Proposal Submissions- All Participants

Factor	n	Mean Ranking	SD
Balancing the time for teaching, research, and service	255	3.54	3.08
Financial support to start or continue research	218	5.20	3.70
Infrastructure & student support	201	6.24	4.18
Incentives	209	6.48	4.67
Proposal development support	208	6.83	4.12
Faculty morale	201	7.23	4.71
Department-level or college-level grant administration support	199	7.60	4.15
Finding opportunities and responding by the deadline	208	7.82	5.12
University-level project administration support	187	7.88	3.92
Building collaborations	192	8.09	4.69
Training and mentorship	180	8.41	5.06
Facilities and administrative (F&A) costs	168	8.75	4.60
Pre-Award grant administration	166	8.92	4.39
Post-Award grant administration	156	9.06	4.86
Different expectations between faculty and any office staff in the fulfillment of grant-associated tasks including finding, submitting, and administrating grants	146	9.45	4.42
Institutional Review Board (IRB)	131	9.69	5.04
Cost sharing	132	9.95	4.96
Non-financial compliance	104	11.47	4.89

1 = ranked first
18 = ranked last

Rankings of Factors that would Enable More Proposal Submissions- All Participants

Mean Ranking of Factors that Would Enable More Proposal Submissions
(total N = 279; n for each factor 104 - 255)
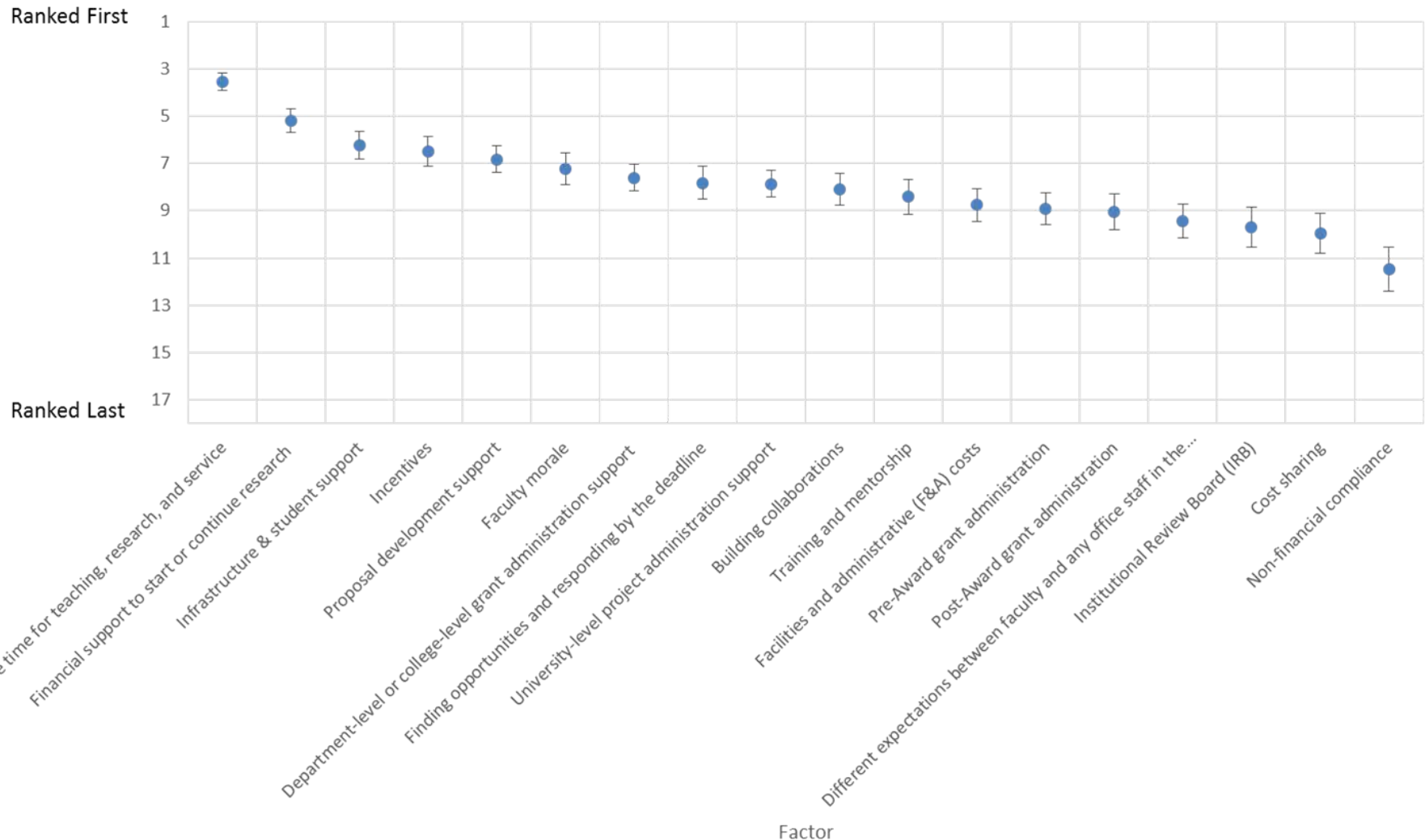
Error bars represent the 95% confidence interval for each factor

Initial Steps to Address Barriers

Internal Seed Programs

- **President's Collaborative Research Initiative**
  - Supports collaboration and expands funded interdisciplinary federal research across TTU, TTUHSC and TTUHSC El Paso

- **Seed Grant Solicitation for Interdisciplinary Research**
  - Supports interdisciplinary research and scholarly activities in addition to attracting federal funding that would support collaborations that include the arts, education, humanities and/or social sciences

- **Scholarship Catalyst Program**
  - Supports faculty research, scholarship and creative output in the arts, humanities and social sciences

- **Transdisciplinary Research Academy**
  - Supports faculty with diverse interests to generate new research with potential for external funding

- **International Research/Development Seed Grants**
  - Intended to enhance international research and development activities at Texas Tech University and the Health Sciences Center.

Proposal Development & Support Programs

- ## Research Development Team
  - Large-scale, center-like proposal development; new faculty assistance; swift critique and appraisal of declined grant proposals; grant editors

- ## Proposal Support Program
  - Provides funds to support collection of pilot data, travel to a funding agency and required agency matching funds (with department/college matching)

- ## Proposal Review Program
  - Provides feedback on grant proposals to improve quality before submission to agency

- ## Proposal Development Workshop Series
  - Provides tailored instruction on writing grant proposals

- ## Grant Facilitaters Program
  - Grant proposal writers for colleges that would work with faculty on budget development and proposal writing to facilitate greater proposal submissions (with college matching funds)

Faculty Support & Recognition

- Support for 31 non-tenure track research professors

- Increased support for graduate students ($2 million of temporary funds made permanent; $2 million in new funds)

- Open Access Publication Initiative

  - OVPR provides funds to defray costs of author publication fees

- Targeted External Faculty Awards Program

  - Increases recognition of distinguished faculty, and national and international visibility of TTU

- Faculty Research Club

  - Provides a social setting to stimulate interdisciplinary research collaborations

Improve Research and Creative Infrastructure

- Experimental Science Buildings I, II

- Innovation Hub at the Research Park

- East Loop Research Building

- Reese Technology Center

- Renovations for designated research space along the Engineering Key

- Renovation of existing creative research space

- Shared core facilities

Next Steps

- Statistical analysis of data

- Focus groups with faculty and staff

- Develop interventions to address barriers

Questions?

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