

ADVANCE PROJECT CREST

Changing Research Experiences Structures
and (in)Tolerance through the Adaptation
of Promising Equity Practices

ABSTRACT

In April 2023, the Project CREST Team held a second interactive poster event where the campus community was invited to learn about and offer feedback on the activities and outcomes during the second year of the grant. The activities were summarized in six poster presentations as well as an overview poster.

Principal Investigator: Dr. Jessi L. Smith

Co-PI: Dr. Elizabeth Daniels

Co-PI: Dr. Emily Skop

Co-PI: Dr. Heather Song

Co-PI: Dr. Sylvia Mendez

Faculty Fellow: Dr. Jeffery Montez de Oca

Research Development Coordinator: Dr. Kelly McNear

Project Coordinator: Jennifer Poe



This material is based upon work supported by the National Science Foundation (NSF) under Grant No. 2117351. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

Project CREST Year 2 Posters

In July 2021, a team of UCCS faculty received an NSF ADVANCE Adaptation-track grant. Over the next three years, the project team will work to adapt evidence-based practices from previously funded ADVANCE grants at other universities to our unique UCCS context. Though higher education is presumed to be the “great equalizer” (Chetty et al., 2017), diversity and equity within academic faculty ranks remains elusive (Stewart & Valian, 2018). Indeed, higher education remains a gendered and racialized organization (Britton, 2000, 2010; Miller & Roksa, 2019). This is why the ADVANCE Adaptation Program is so unique and imperative; the goal is not to just see what sticks in the kitchen sink of programs, but to purposefully adapt previously proven strategies.

Project CREST aims to transform UCCS through two primary initiatives by adapting practices from previous ADVANCE projects to:

1. Positively impact women’s research experiences and productivity
2. Change the research policies and evaluation structures within the institution to more fully support women’s research participation, and
3. Vigilantly mitigate biases within UCCS research spaces and research processes. Project CREST focuses on systemic reform efforts that will change the landscape of UCCS today and for the next generation of scholars.

In April of 2023, we held a second annual interactive poster session where the project leadership team created presentations to share the major activities and accomplishments in our first grant year. Over 55 campus community members attended this event. We encouraged attendees to offer feedback and questions for the project team. Each of the seven posters shared with the campus at this event are included in this document.

For questions, comments, or if you’d like to see any materials referenced in the posters, please email advance@uccs.edu.

Sincerely,

The Project CREST Team

Dr. Jessi L. Smith, Dr. Elizabeth Daniels, Dr. Emily Skop, Dr. Heather Song, Dr. Sylvia Mendez, Dr. Jeffery Montez de Oca, Dr. Kelly McNear, Jennifer Poe

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Project CREST Overview: Changing Research Experiences, Structures, and (in)Tolerance through the Adaptation of Promising Equity Practices

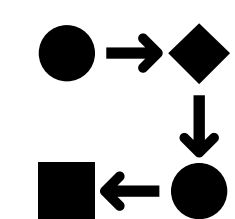
ADVANCE Adaptation

The National Science Foundation's ADVANCE Program is dedicated to increasing the representation of women in Science, Technology, Engineering, and Mathematics (STEM) and Social and Behavioral Sciences (SBS) fields by funding teams across the US to research and implement promising equity practices. Project CREST received an ADVANCE grant in the Adaptation track in July 2021. The adaptation track supports the adaptation of evidence-based practices to a specific university context to improve equity in STEM/SBS fields. Project CREST seeks to improve the research landscape of UCCS today and for the next generation of scholars by adapting evidence-based practices from previously funded NSF ADVANCE projects from **Montana State University, Seattle University, West Virginia University, and Georgia Institute of Technology.**



Impact

Positively impact the research experiences and productivity of women- and minoritized faculty



Change

Change the research policies and evaluation structures within the institution to more fully support equity

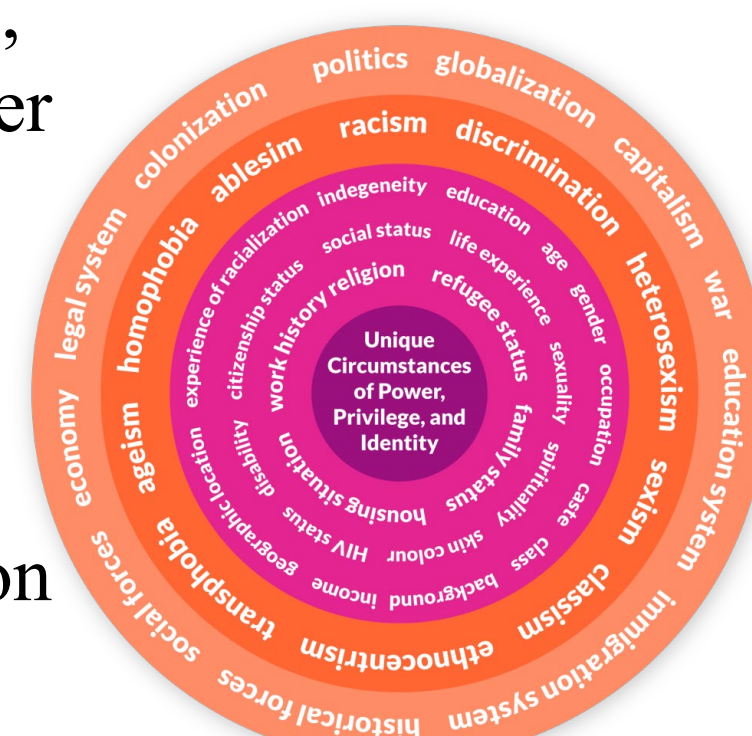


Mitigate

Vigilantly mitigate biases within UCCS research spaces and research processes

Intersectionality and an Ethos of Care

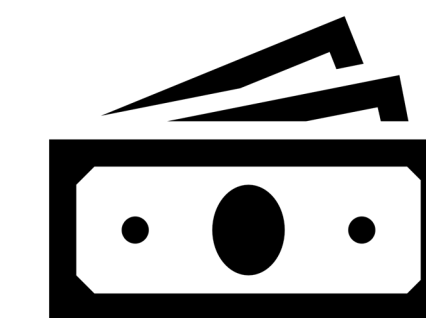
Intersectionality provides a lens to consider identity and the unique structural barriers people face. For example, though often discussed as a binary, we know that gender is fluid and just one of many social markers that intersect in one's identity including an individual's foreign-born status, their ethnic/racial minority status, their sexual orientation, and/or their caregiver roles. With this Adaptation grant, we are laying the foundation to improve the culture for future generations of UCCS faculty by engaging in systemic change in the spirit of an ethos of care (Skop et al., 2021).



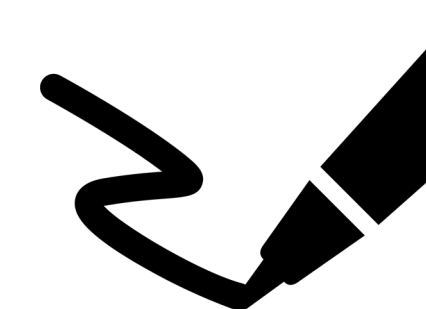
Initiative 1: Build a responsive and inclusive research infrastructure based on MSU's ADVANCE Project TRACS



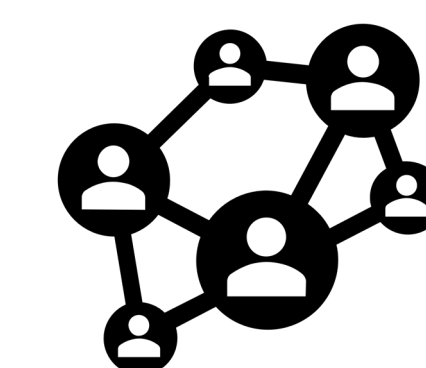
Hire a Research Development Coordinator to help establish an inclusive research infrastructure



Offer "mini grants" for women faculty and those from other underrepresented backgrounds in STEM and SBS



Host grant-writing bootcamps to provide dedicated time and instruction for creating successful grant submissions



Create and implement a targeted Research Network to provide ongoing support and mentoring for campus researchers

Initiative 2: Reshape research policy, practices, and evaluation structures



Use the WVU Dialogues dual-agenda technique to develop cohesion and inclusion among departments and co-create new annual review processes with each unit



Reimagine promotion and tenure documents in line with Seattle University's ADVANCE Project



Revisit all research policies with an intersectional lens to ensure that they benefit everyone – also from SU's ADVANCE Project



Establish enduring sense-making opportunities using Georgia Tech's ADEPT format to catalyze new habits, texts, and interactions that can help sustain and cultivate gender and racial equity

Meet the Team



Project Leadership:

Principal Investigator: Dr. Jessi L. Smith
Co-PI: Dr. Sylvia Mendez
Co-PI: Dr. Heather Song
Co-PI: Dr. Emily Skop
Co-PI: Dr. Elizabeth Daniels
Research Development Coordinator: Dr. Kelly McNear
Faculty Fellow: Dr. Jeffery Montez de Oca
Project Coordinator: Jennifer Poe

We want to hear from YOU!

Adapting these evidence-based practices to the unique culture at UCCS and building sustained support for our initiatives needs input from our campus community – YOU! We invite you to be part of our strategies by helping us reflect on our activities and accomplishments. We hope you will join us on this climb!



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Daniels, E. A., Poe, J., Smith, J. L., Mendez, S., Skop, E., & Song, H.

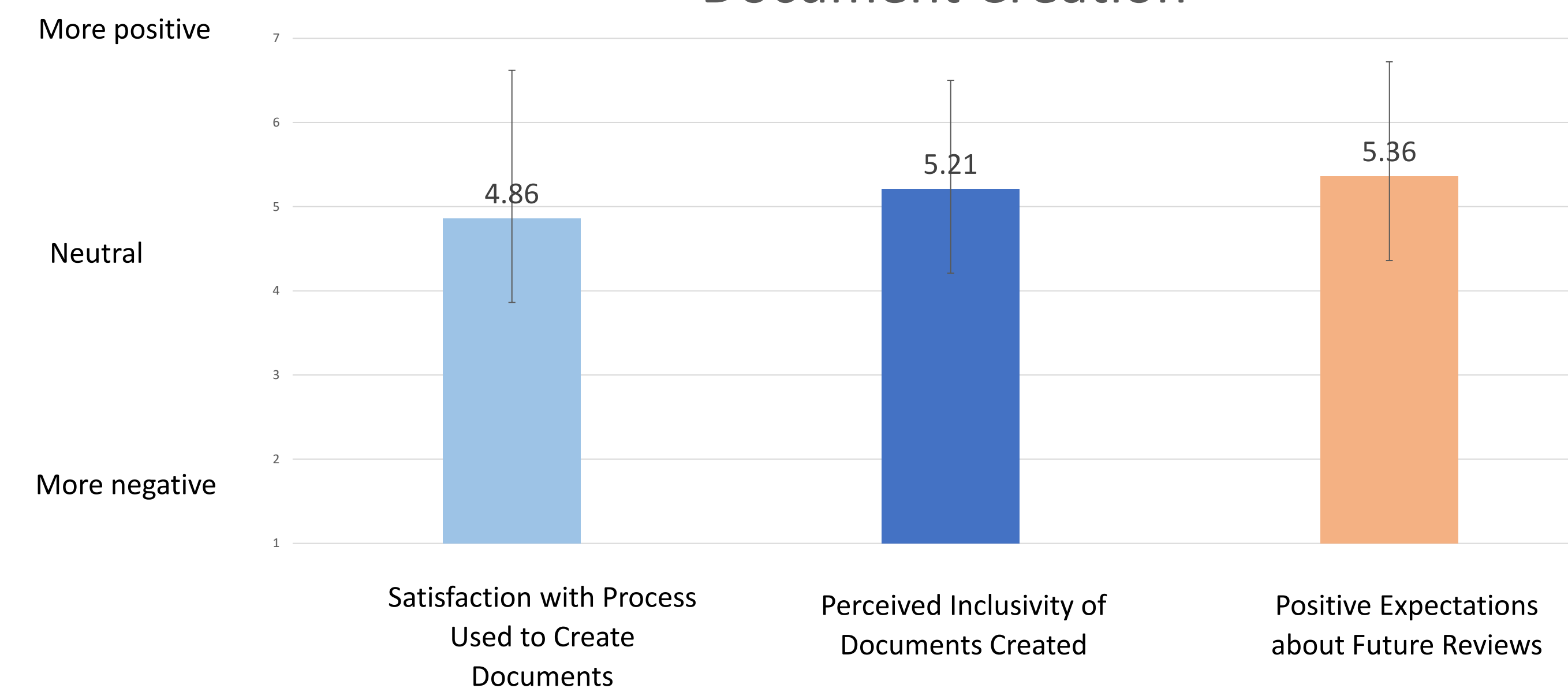
Background: In In 2021-22, the Project CREST team surveyed tenure-track faculty and department chairs (51.4% response rate) about their perceptions of creating annual review criteria.

Method: We invited 255 tenure-track faculty and 35 department chairs and directors (n = 290) to complete an online survey. A total of 149 (n = 134 faculty and n = 15 department chairs/directors) responded to the survey (overall response rate = 51.4%).

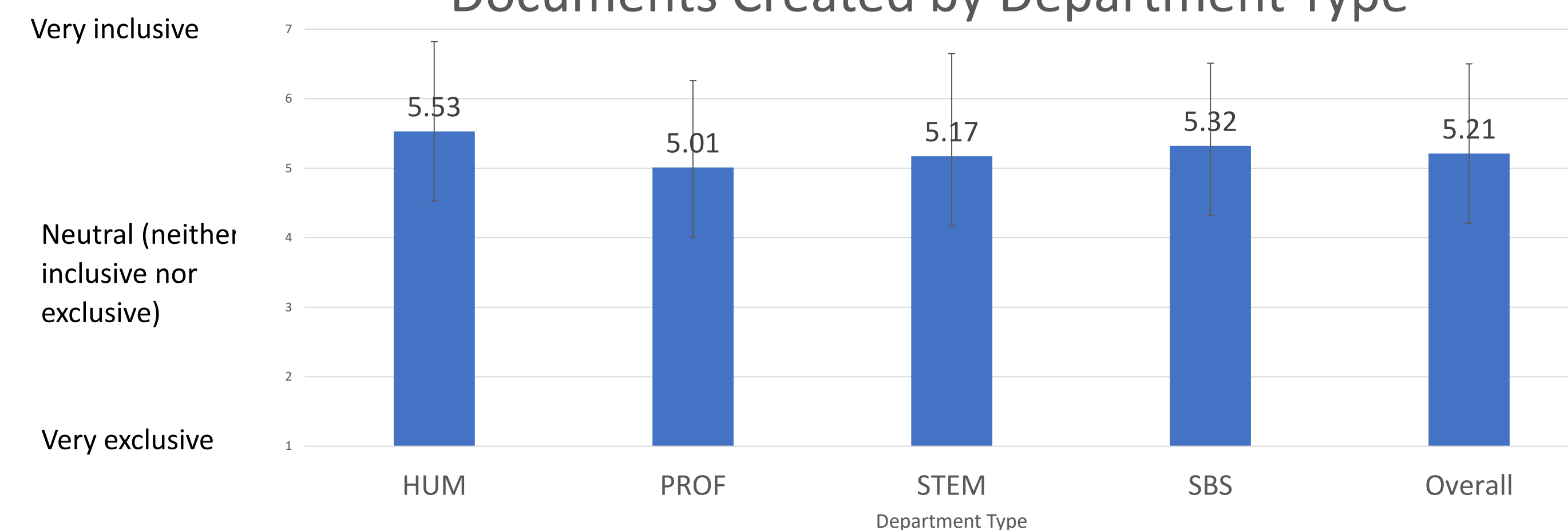
We asked participants about their perceptions of creating their department's annual review documents including: satisfaction with the process, inclusiveness of the documents, and positive expectation for future reviews. We also asked participants how often they think their department should revisit annual review criteria.

Main findings: Results suggest that the faculty experience was generally favorable during the annual review criteria document creation process. In addition, faculty largely feel that criteria should be revisited fairly frequently.

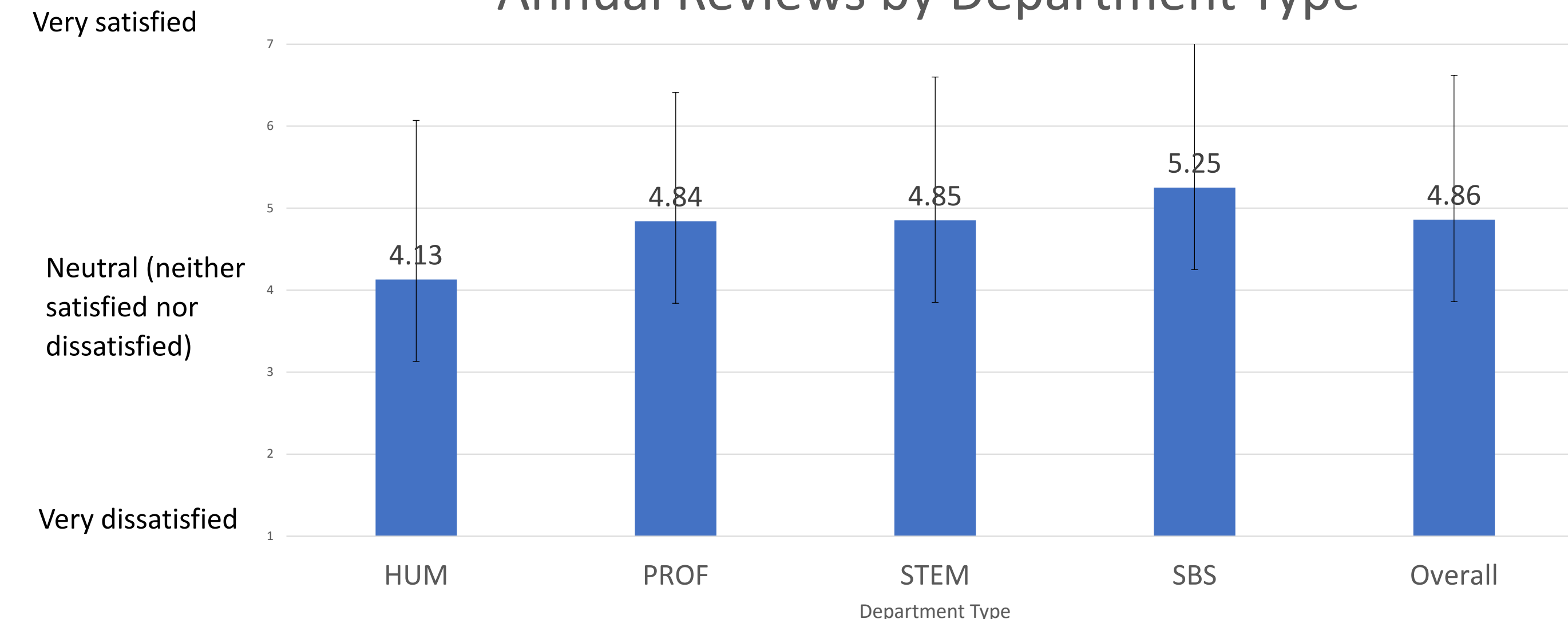
Perceptions of Annual Review Criteria Document Creation



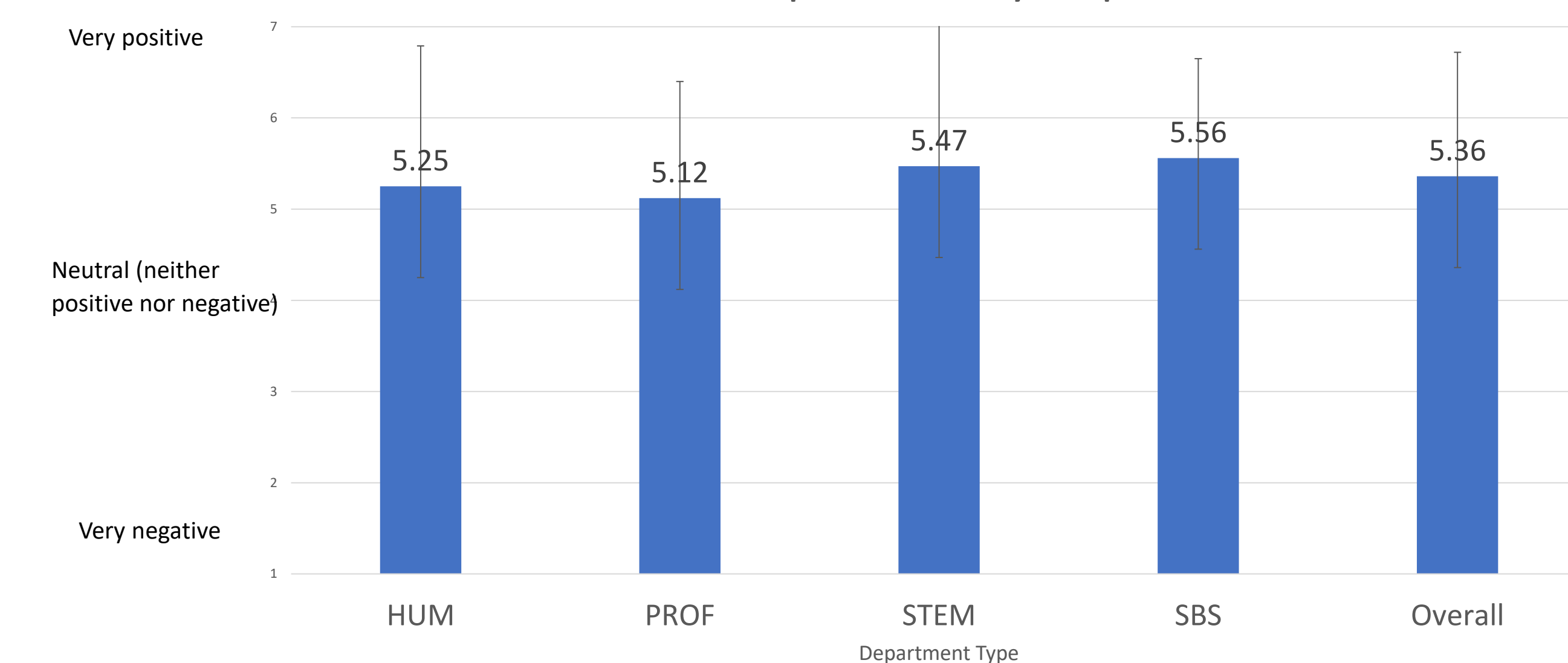
Perception of Inclusiveness of Annual Review Documents Created by Department Type



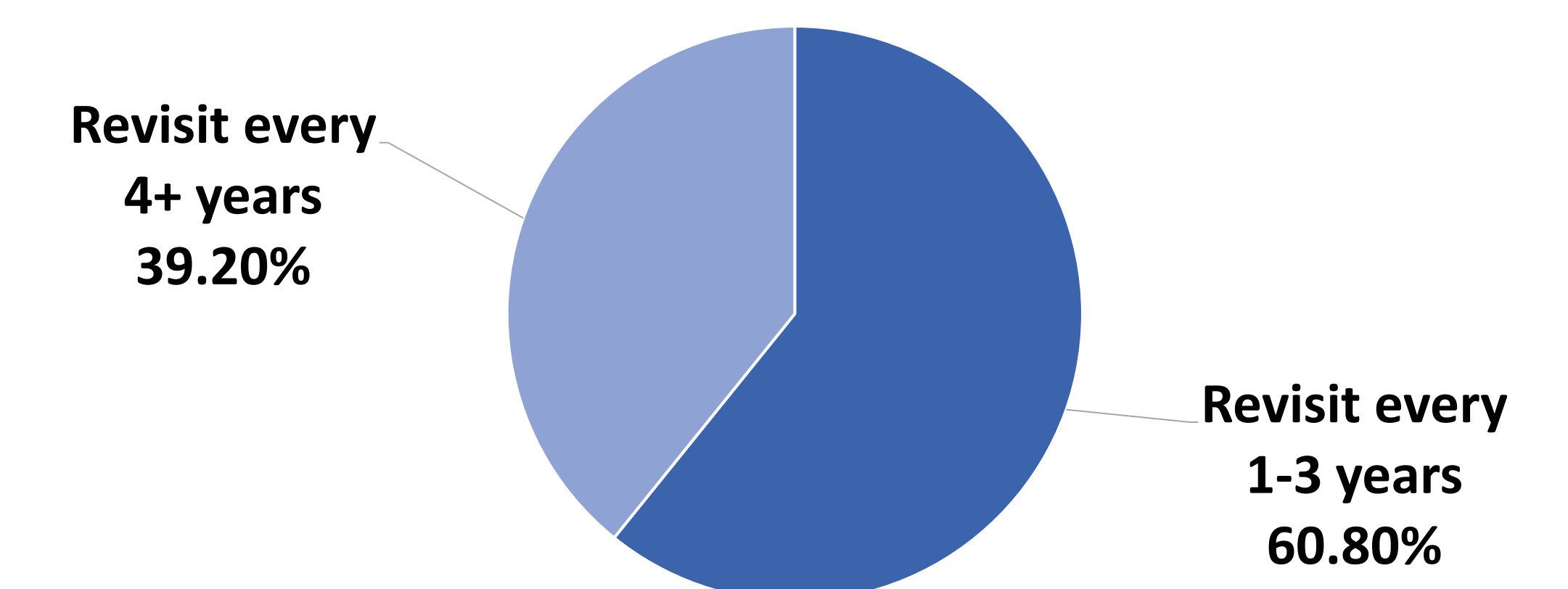
Satisfaction with the Process of Creating Annual Reviews by Department Type



Expectations of Future Annual Reviews Being a Positive Experience by Department



How frequently should departments revisit annual review documents?



Overall, faculty who participated in this survey:

- Reported satisfaction with the process of creating annual review documents.
- Felt that the annual review documents are inclusive.
- Are holding positive expectations for future annual reviews.
- The majority of faculty reported that criteria should be revisited every 1-3 years.



Faculty Research Support: Role of the Project CREST Research Development Coordinator

Meet the Research Development Coordinator!



Dr. Kelly McNear joined the UCCS community in Fall 2018 as a research associate in the UCCS BioFrontiers Center. Here, Kelly became well-versed in grant writing and has submitted numerous grants to various agencies. She joined the Office of Research in December 2021 to support faculty research efforts. To date, Kelly has assisted over 50 faculty members and has provided support for over 100 help events.

The Research Development Coordinator position is funded 50% by NSF ADVANCE Project CREST grant and 50% by UCCS. This means that while women-identifying and minoritized faculty are the focus of Project CREST, Kelly can help all faculty here at UCCS!

Evidence-based guidance for research support

Women Submit Fewer Proposals

Men in STEM and SBS submitted 76% more proposals than women.

Women in STEM Request Less Funding

Men in STEM request 30% more funding in their proposals than women.

Women's proposals are more successful

Women in STEM and SBS are 45% more successful in securing funding than men.

Data from UCCS shows that while women in STEM/SBS fields submit fewer proposals than men, their proposals are more successful (FY 20). However, women and minoritized faculty often do not get the support that they need and face bias (Holliday, 2015). The goal of this position is to provide research support to increase the number of proposals submitted by women-identified and minoritized/marginalized faculty.

		Calendar Year		
		2012	2016	DIFFERENCE
STEM & SBS	Number of TT Women Faculty	60	100	40
	Number of TT Women Pls	33	65	32
	Total Expenditures	\$6,814,450.71	\$13,855,449.65	\$7,040,998.94
	Expenditures/ TT Women Faculty	\$113,574.18	\$138,554.50	\$24,980.32
STEM	Expenditures/ TT Women Pls	\$206,498.51	\$213,160.76	\$6,662.26
	Number of TT Women Faculty	45	77	32
	Number of TT Women Pls	32	55	23
	Total Expenditures	\$6,848,481.97	\$12,617,179.35	\$5,768,697.38
SBS	Expenditures/ TT Women Faculty	\$151,271.53	\$163,859.47	\$12,587.94
	Expenditures/ TT Women Pls	\$214,4015.06	\$229,403.26	\$15,388.20
	Number of TT Women Faculty	15	23	8
	Number of TT Women Pls	1	10	9
	Total Expenditures	\$7,231.76	\$1,238,270.30	\$1,231,038.54
	Expenditures/ TT Women Faculty	\$482.12	\$53,837.84	\$53,355.72
	Expenditures/ TT Women Pls	\$7,231.76	\$123,827.03	\$116,595.27

Breakdown of women tenure-track faculty hires by STEM/SBS department and the total over the life of the ADVANCE Project CREST grant.

How can the Research Development Coordinator support you?

Full grant consultations

If you're unsure of where to start, want to talk through strategies, or need someone to serve as an accountability partner, Kelly can support every step of the way. Kelly can also proofread and edit all of your documents for proposals, manuscripts, and even budgets.

Assistance with finding funding

Whether you're new to grant writing and need help finding appropriate calls or a seasoned grant writer who is looking for new and unique funding opportunities, Kelly will perform funding searches to help meet your needs.

Research Network—CREST Belayers

Together with the Project CREST team, Kelly has been organizing monthly CREST Belayers events for mid-career women in STEM/SBS. As this position grows, we hope to expand our research networking groups!

Grant Writing Bootcamp

Kelly has successfully run 2 iterations of the UCCS Grant Writing Bootcamp. These are 5 session workshops over 6 weeks that focus on the basics of putting together a grant proposal. The goal is to provide faculty with resources and feedback so that they will have a completed, ready-to-submit proposal by the end of bootcamp.

Since Kelly will be on leave this spring, be sure to join Dr. Jessi Smith's virtual Commit to Submit Bootcamp on June 13!

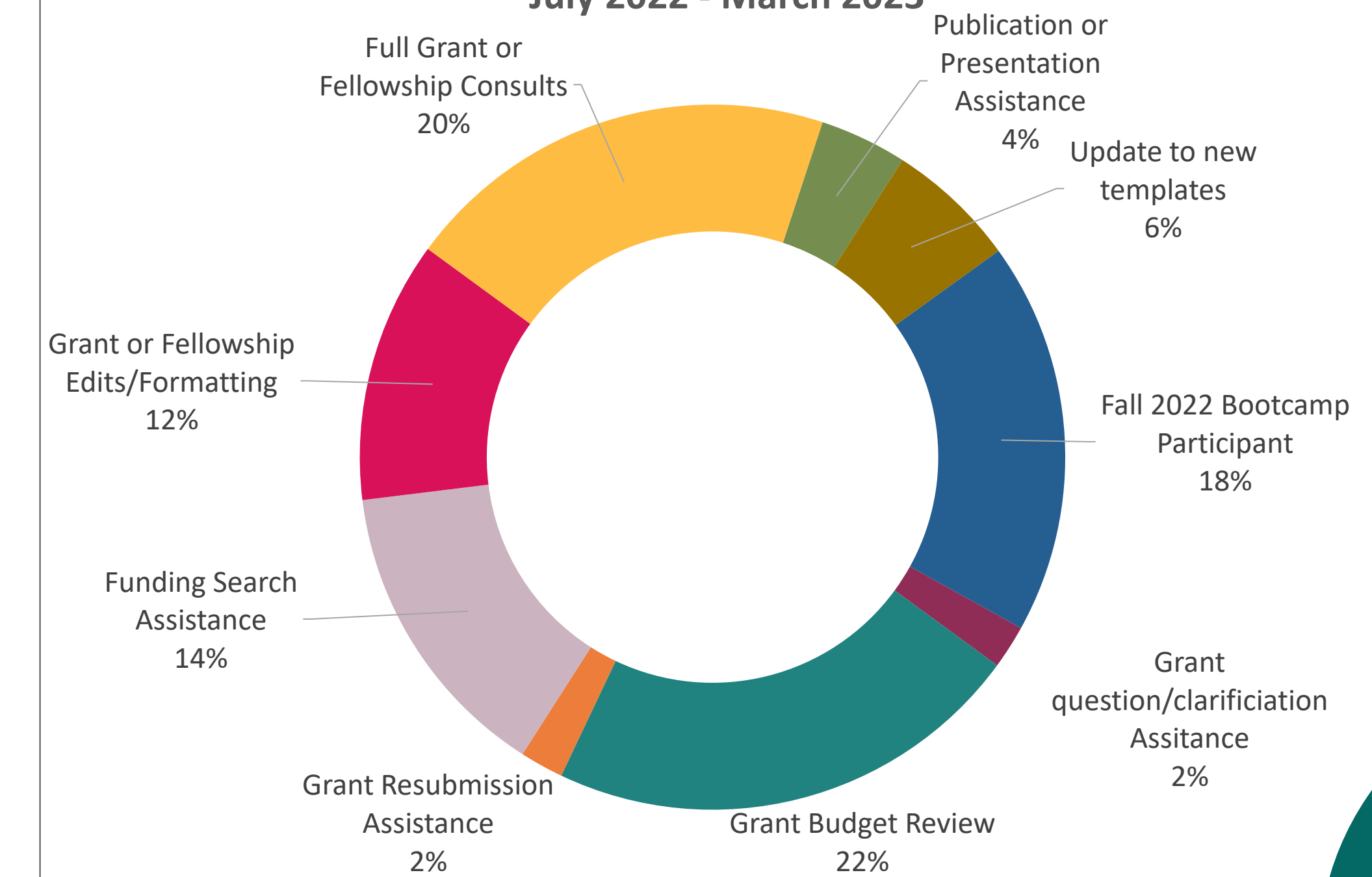
Bootcamp Impacts

Total proposals submitted	Total proposals in progress	Proposals submitted by women-identified/minoritized faculty	Proposals submitted by women-identified/minoritized faculty in STEM or SBS
20	13	17	8

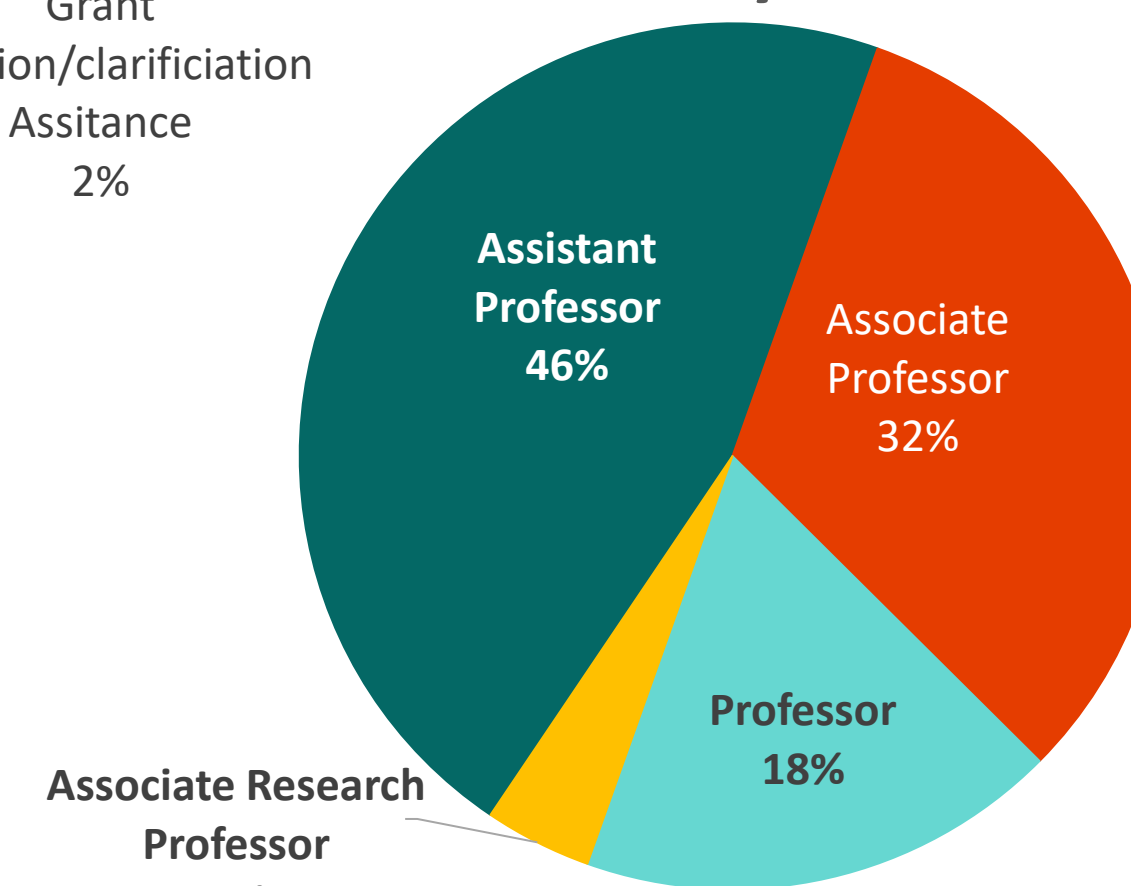
The bootcamp participants were polled several months after the end of bootcamp (end dates of June 16 and October 20 for the spring and fall sessions, respectively). Since then, of the respondents, 20 proposals have been submitted to agencies such as NIH, NSF, DOE, Spencer Foundation, Russell Sage Foundation, and more!

RDC Support Data: Who and how we are helping

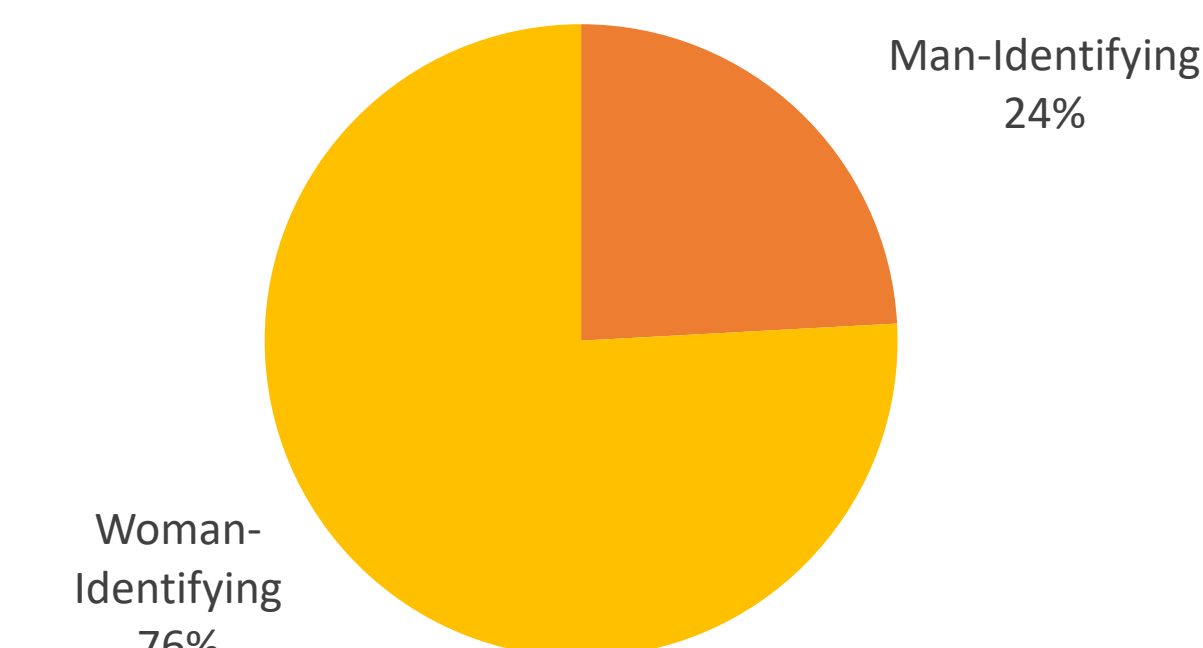
Help Provided by the RDC July 2022 - March 2023



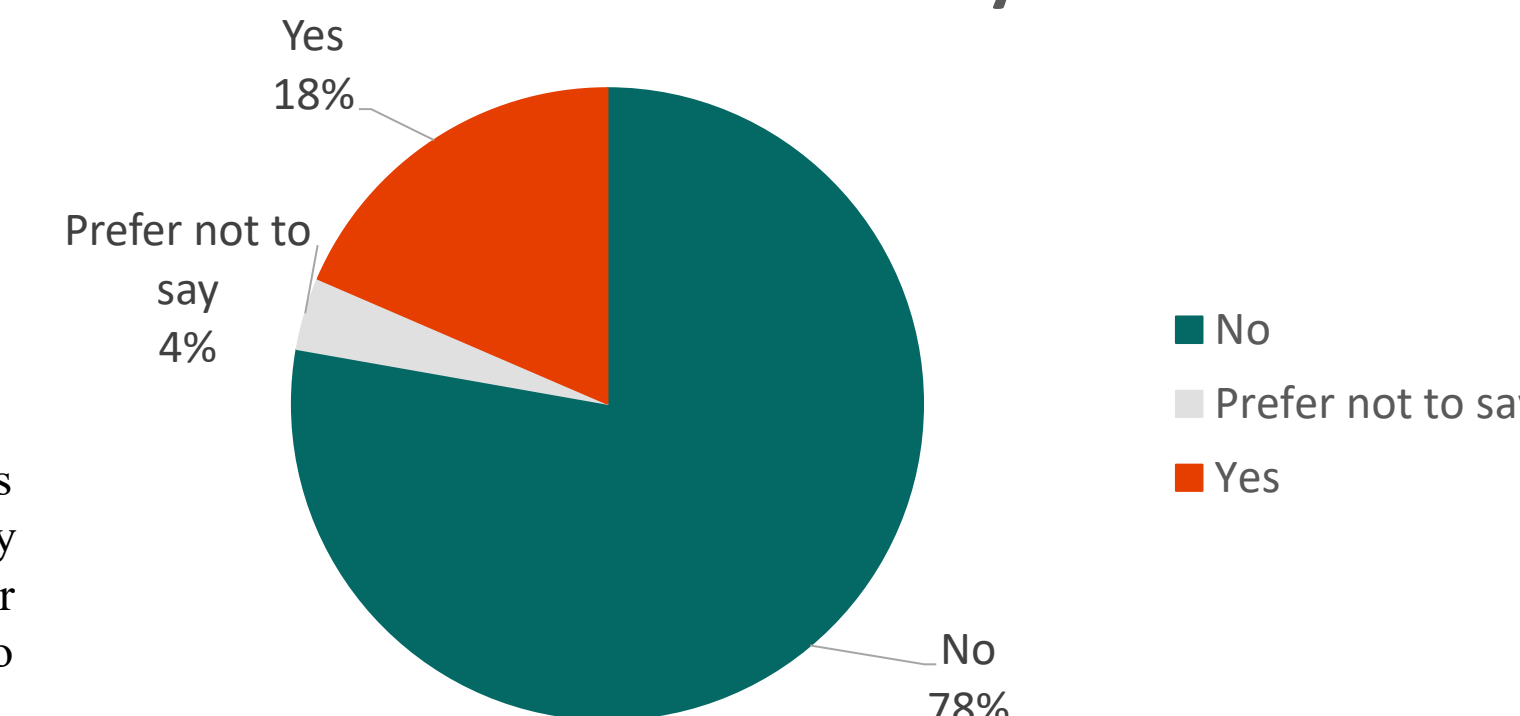
Faculty Rank



Gender Identity



Minoritized Identity



*Not all faculty completed the demographics portion of the survey. Of the 52 faculty members assisted, 49 responded to gender identity questions and 44 responded to race/ethnicity questions.

Your input matters!

Since this position is still developing and has the potential to support so many research efforts on campus, we would love your feedback to make this role as efficient as possible!

Please leave your comments in the envelope next to this poster.



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Faculty Annual Review Criteria at UCCS: Fostering Greater Equity-Minded Practice

[Read the Full Coding Report Here:](#)



Background

Annual faculty evaluations must be completed fairly and equitably to ensure the vital work faculty performs for our university, our students, and our disciplines is given proper credit. To explore the manner in which equity-minded practice is embedded in UCCS annual review documents, a qualitative coding analysis was conducted in Fall 2022 with all available tenured/tenure-track annual review documents using a rubric inspired by the *Equity-Minded Reform of Faculty Evaluation Policies Audit Resource* (ACE, 2022).

The Project CREST Annual Review Coding Rubric for Equity attends to the following areas:

- Transparency
- Accountability
- Context
- Holistic assessment
- Considerations of teaching, research and creative works, grant activity, and service and leadership

Gathered available documents

- 29 unit-level criteria available at the time of coding

Coded individually by three people

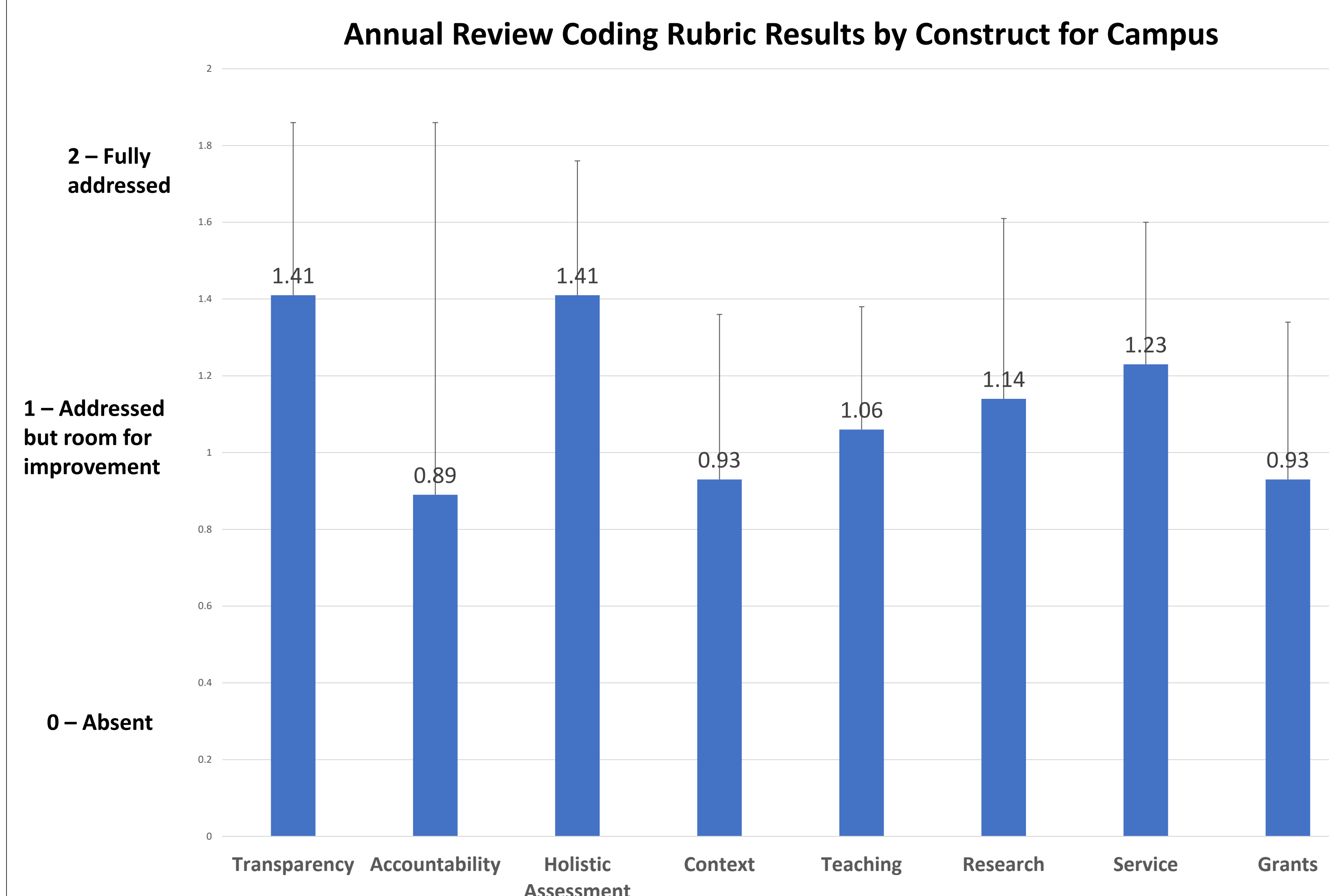
- Coded by an external professor, a graduate student, and a CREST team member

Coded using the equity-minded rubric

- Scored from 0-Absent; 1-Addressed but room for improvement; and 2-Fully addressed

Results

The results below indicate that **Transparency (M = 1.41, SD = 0.45)** and **Holistic Assessment (M = 1.41, SD = 0.35)** were the strongest aspects rated by the coders, while **Grant Activity Considerations (M = 0.93, SD = 0.41)**, **Context (M = 0.93, SD = 0.43)**, and **Accountability (M = 0.89, SD = 0.97)** were rated the lowest.

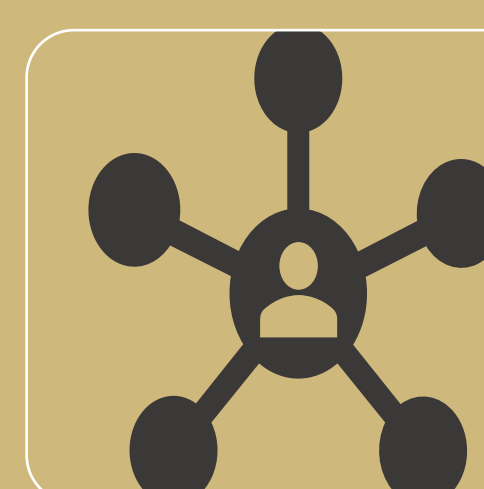


When the coding was analyzed by discipline, important strengths and areas for improvement were revealed. **Social/Behavioral Sciences (SBS) units received a majority of positive ratings, followed by STEM, Humanities, and Professional Programs.**

Top 3 Recommendations



Clearly identify that which constitutes the ranking of meeting expectations, exceeding expectations, and outstanding, along with multiple ways to achieve these rankings, with attention to the faculty life-cycle.



Promote a holistic evaluation of faculty work by recognizing the nature of faculty work can vary widely in a single unit (e.g., interdisciplinary, DEI-focused).



Provide ways to bring relevant life and work contexts into the annual review process.

Next Steps

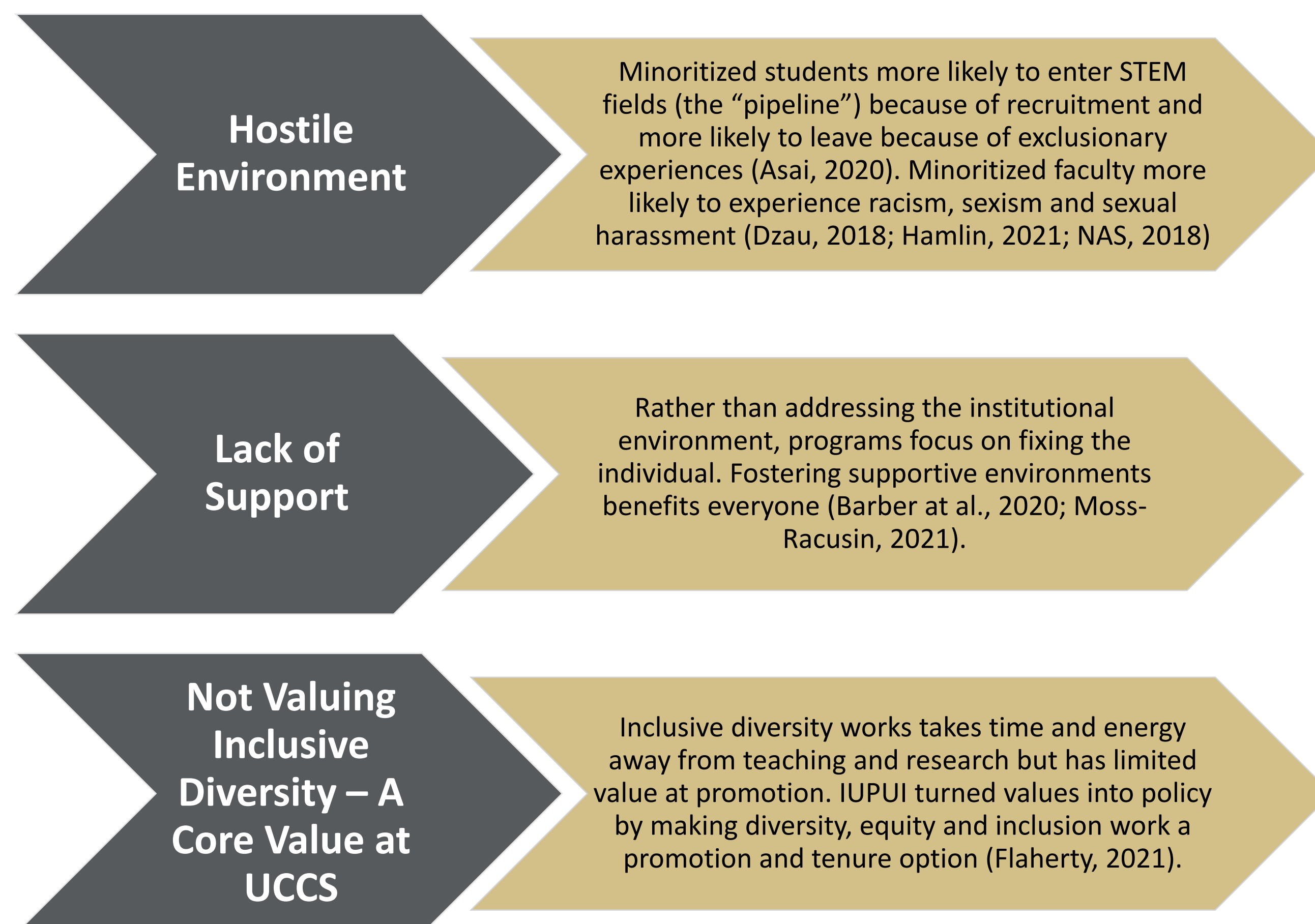
Consider using the unit-level feedback provided by Project CREST to revise annual review criteria documents, use the rubric to evaluate your unit's annual review documents, and connect with the Project CREST team for any assistance as you improve and strengthen your guidelines and criteria.

Study the outcomes of the annual review process, ratings, and any associated merit pay that follows. Historical and contemporary disciplinary biases in the data must be explored, and critical questions must be asked and answered about any inequitable patterns that emerge, particularly along gender and racial/ethnic lines.

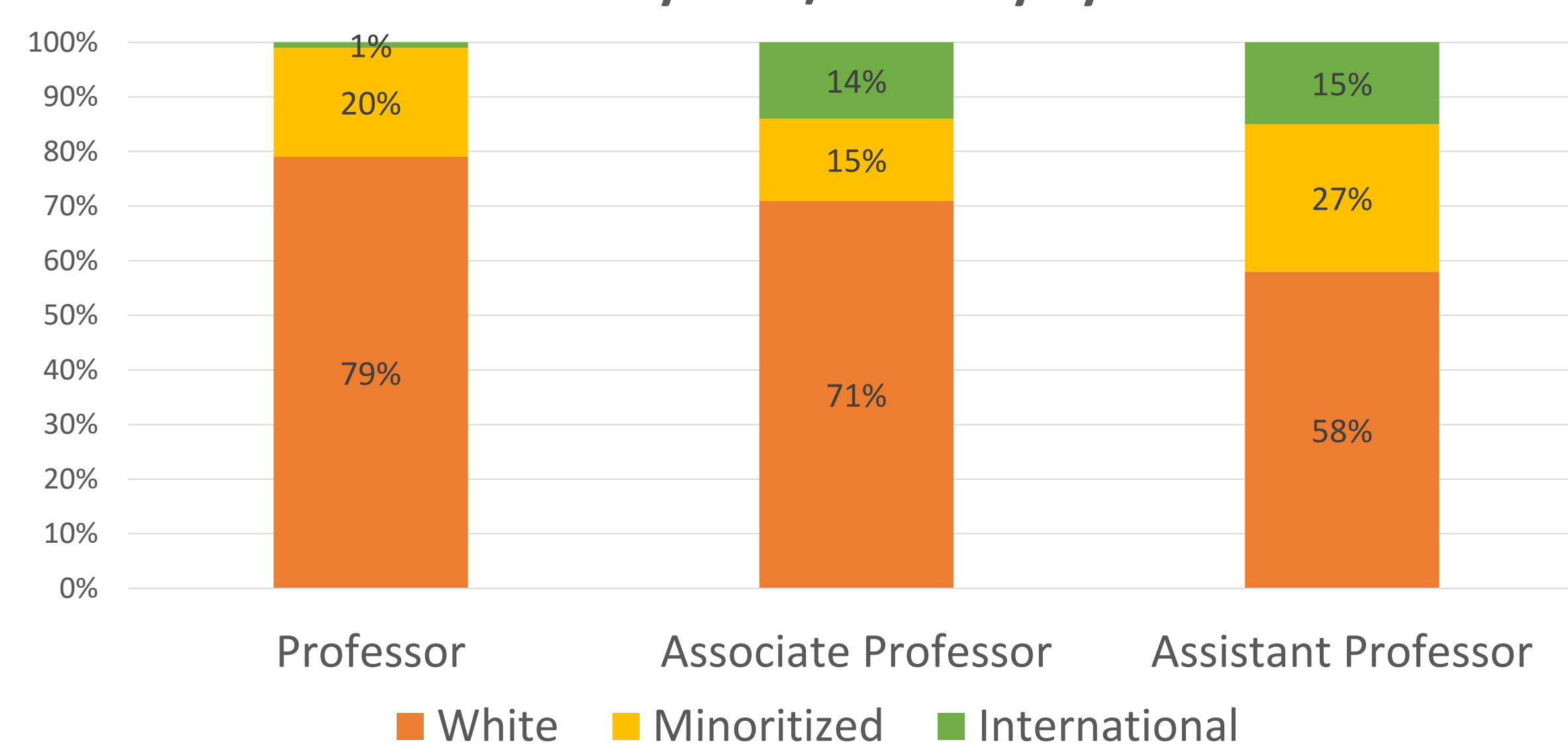
Creating an Inclusive and Equitable Retention, Promotion, and Tenure Review Process

The Problem

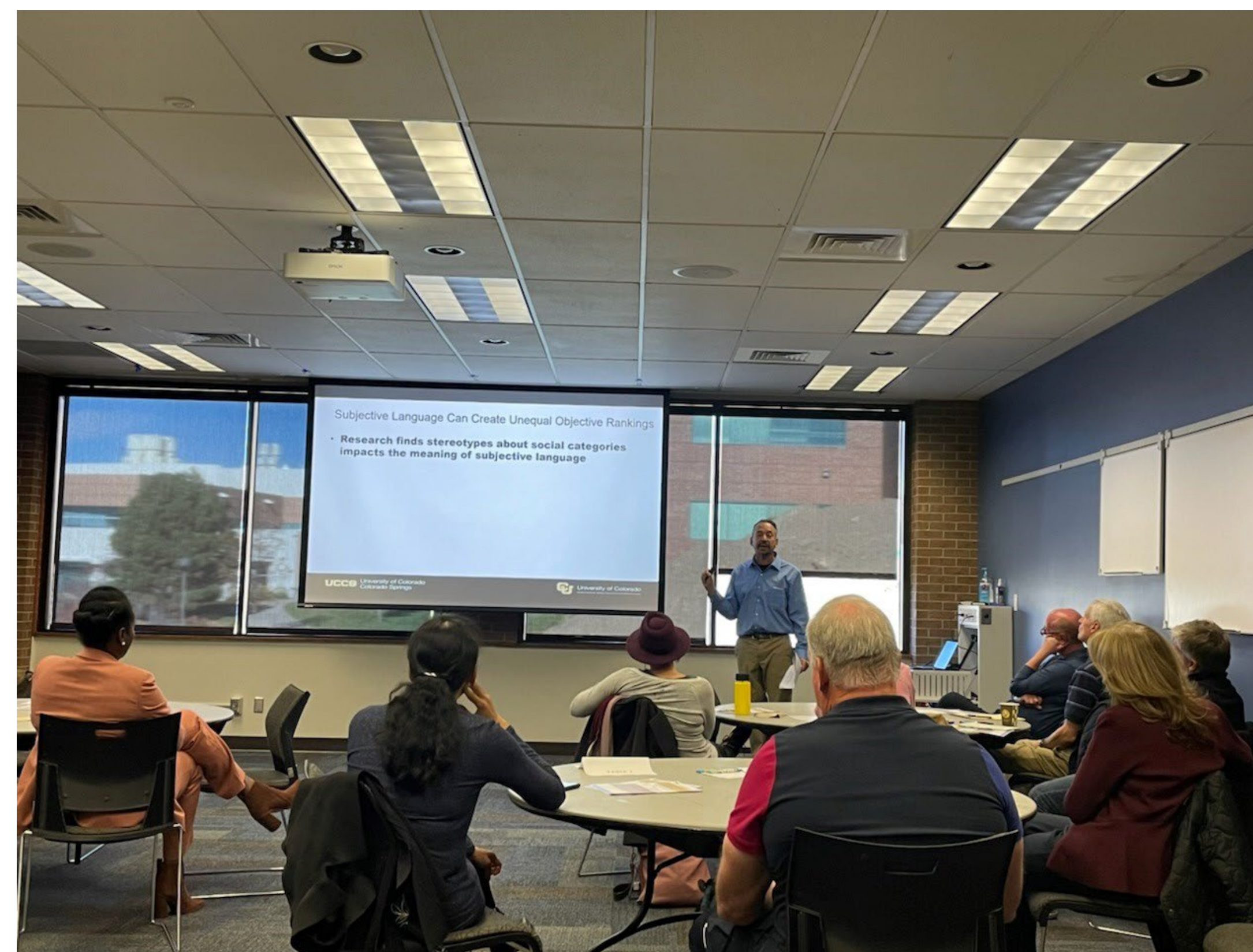
Despite important gains, the academy retains significant barriers to the advancement of minoritized scholars.



2022 Faculty Race/Ethnicity by Rank



The Workshop



Creating an Inclusive and Equitable Retention, Promotion and Tenure Review Process Workshop

This is 2.5 hour, evidence-based workshop adapted from Georgia Tech University. It is designed to minimize bias and discrimination in the review, promotion, and tenure (RPT) process, and to foster an environment that advances women and minoritized scholars through the academic ranks.

What We Do

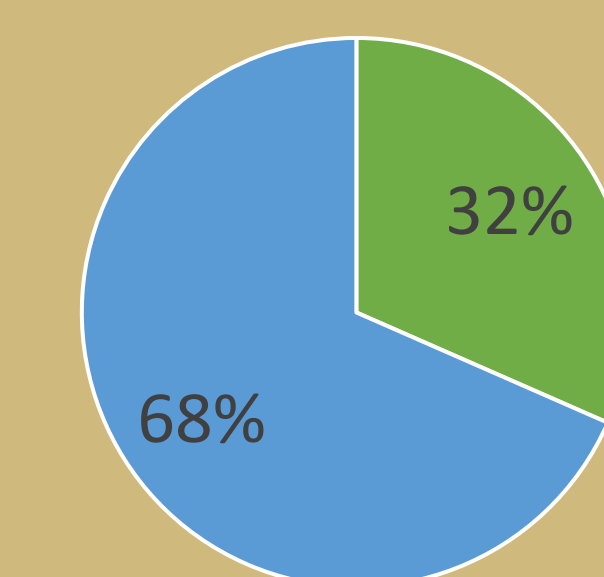
- We first review empirical research on bias in the RPT process.
- Outline how bias affects the RPT process.
- Break down elements of the RPT process.
- Guide strategies to ensure an equitable, inclusive process.
- Then the workshop simulates a RPT review meeting where participants put their research-based knowledge of bias into practice.

Minimizing Bias?

- Unintentional bias is like a habit: Difficult, but not impossible, to break
- Recognize RPT standards are often vague, and ambiguity leads us to rely on stereotypes
- Review the entire dossier not just personal statements
- Go Slow – People rushed, stressed, distracted, or pressured are more likely to apply stereotypes
- Take notes and document decisions with evidence
- **Ask yourself “how has this person been successful?” INSTEAD of “how successful is this person?”**

Fall 2022, the workshop was offered to the Provost’s Review Committee and the Dean Review Committees of every college at UCCS.

Percentage of RPT Bias Literacy Workshop Completion: All Committees



■ Not Completed ■ Completed

Among DRC member, 73% completed the training. including the Provost, deans, faculty, and staff.

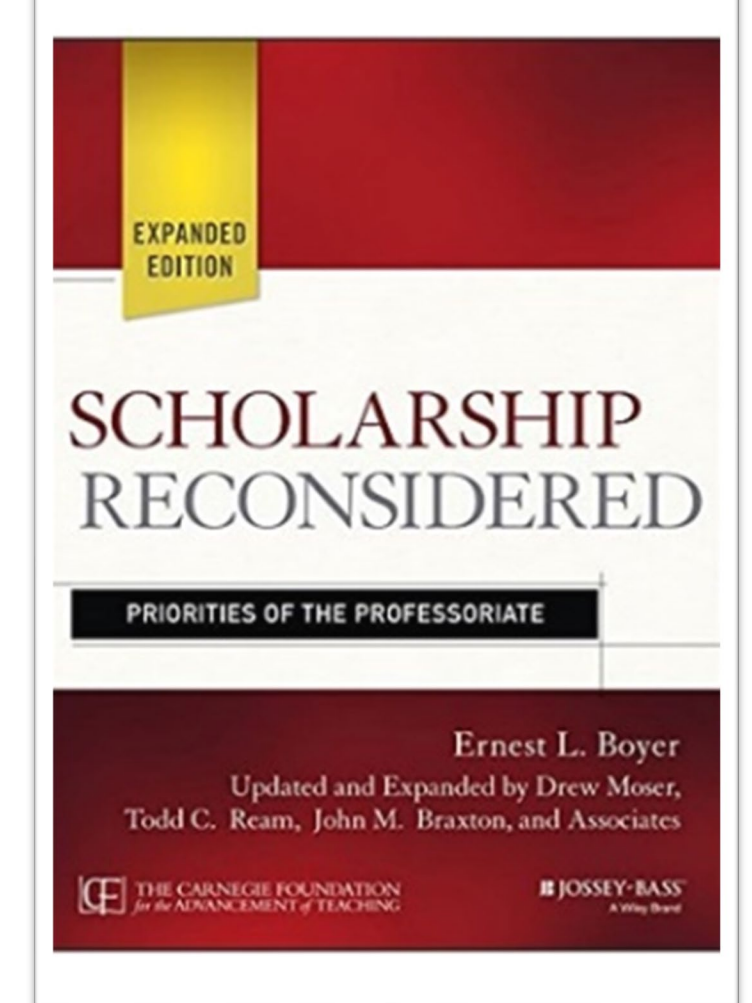
In February 2023, Montez de Oca was asked to run the workshop at the New York Institute of Technology College of Osteopathic Medicine (NYIT-COM). 25 administrators and faculty members on NYIT-COM’s Old Westbury campus in Long Island and Jonesboro campus in Arkansas participated in the workshop.

Fall 2023, the workshop will be offered to primary unit committees at UCCS.

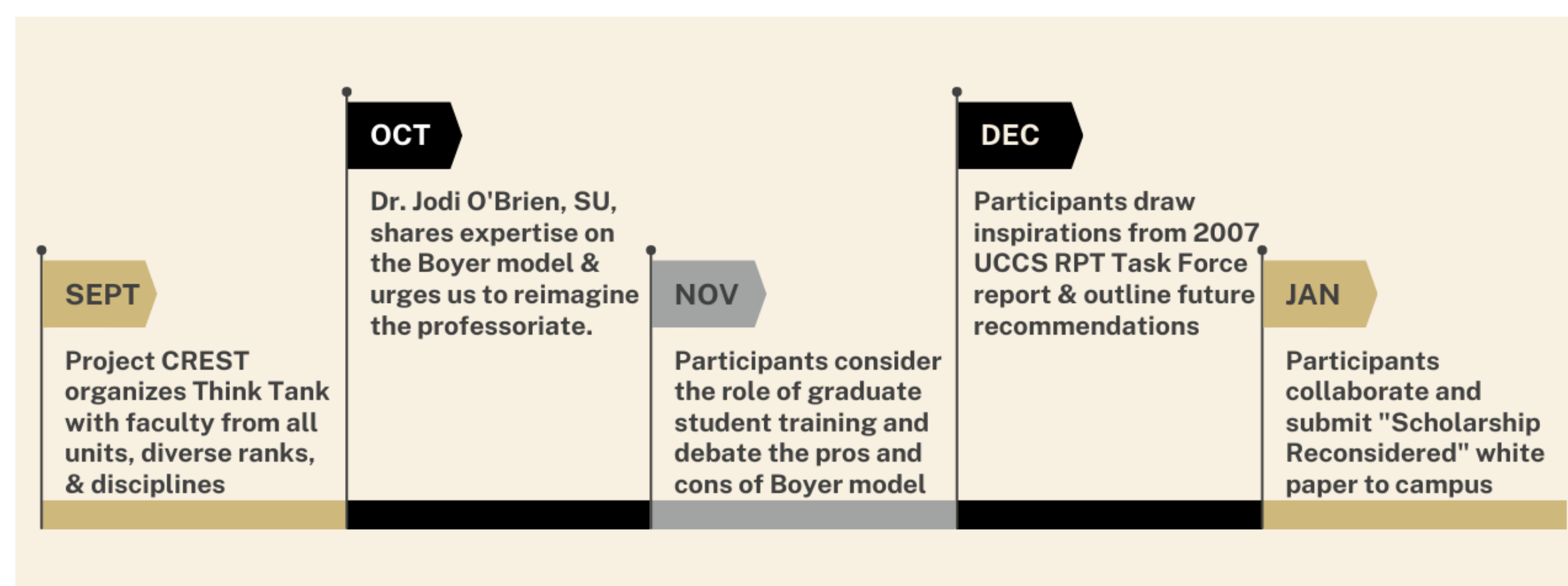


Scholarship Reconsidered: A UCCS Promotion Think Tank

Read the White
Paper Here!



Timeline for the Scholarship Reconsidered Think Tank



Goals of the Scholarship Reconsidered Think Tank

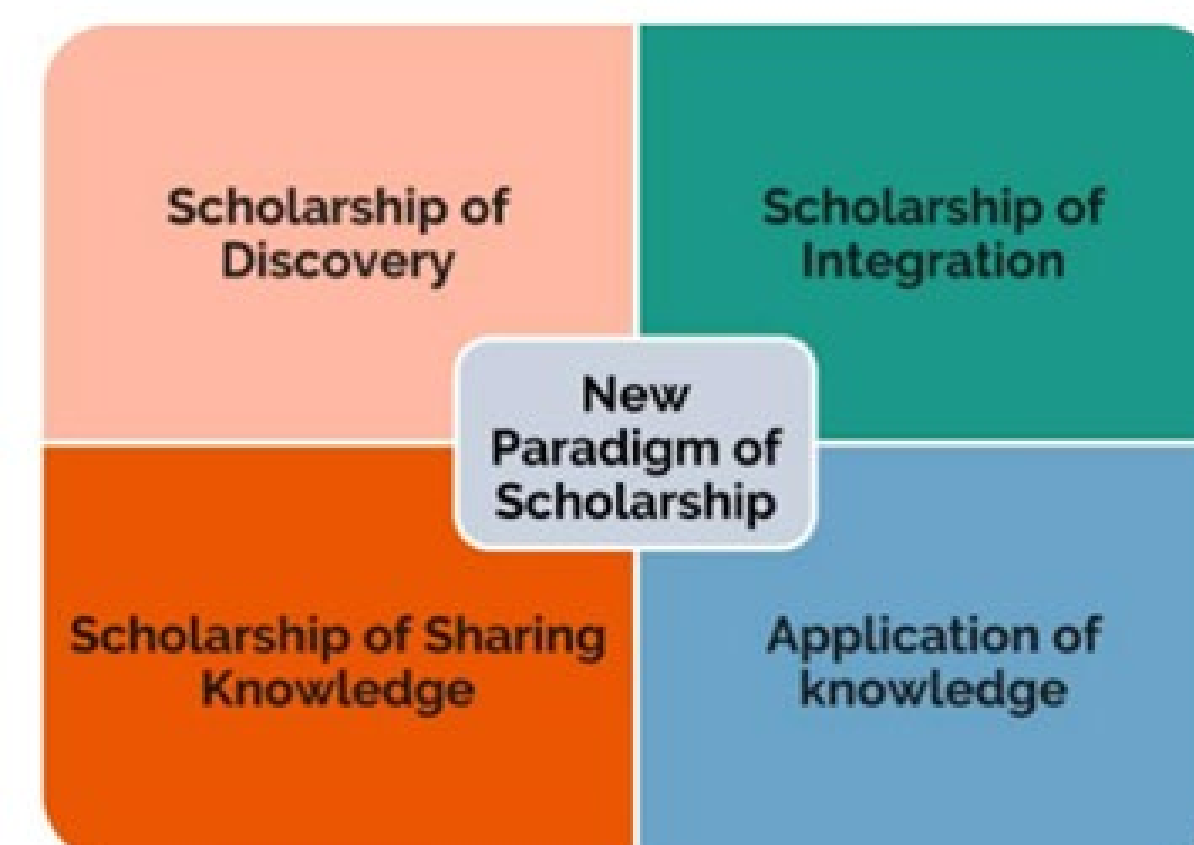
The Think Tank facilitated a collaboration among diverse attendees to learn together, share knowledge, and be inspired to transform the process of promotion to full professor at UCCS. In this work, attendees:

- Challenged each other on assumptions, implications, and future directions,
- Considered bold actions,
- Encouraged unconventional approaches,
- Strategized possible change efforts,
- Drafted a roadmap for possible reform strategies.

Structure of the Scholarship Reconsidered Think Tank

Based on West Virginia University Dialogues © we designed a syllabus and created three face-to-face, interactive sessions, lasting 2.5 hours each. Each session began with ground rules, and included readings, discussions, and design thinking. Attendees committed to attend three sessions, complete "pre-work," and contribute to the White Paper.

What Does it Mean to Reconsider Scholarship?

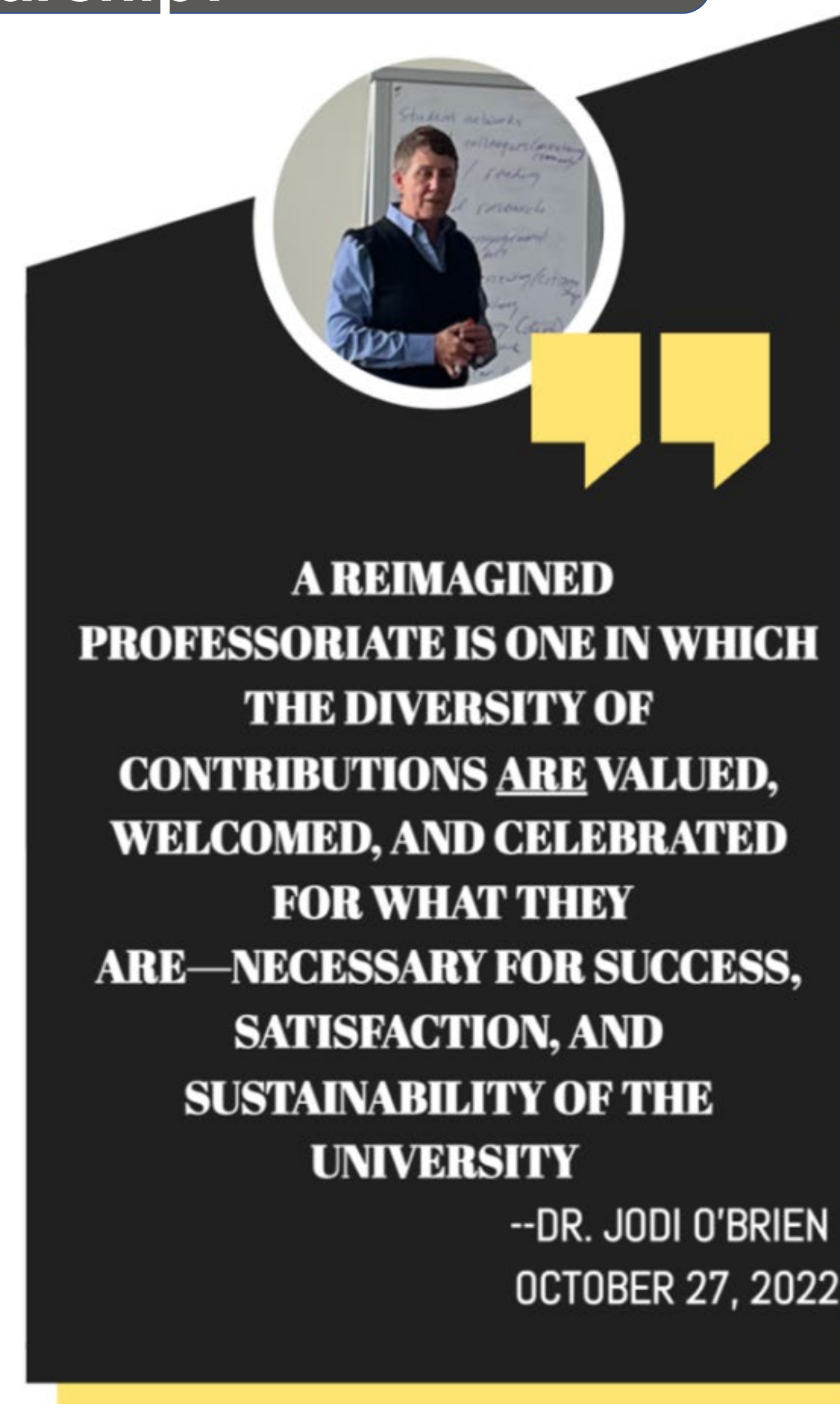


Finding ways to better define, articulate, and regard various kinds of scholarship. Note: this does not diminish the rigor or standards of work for faculty.

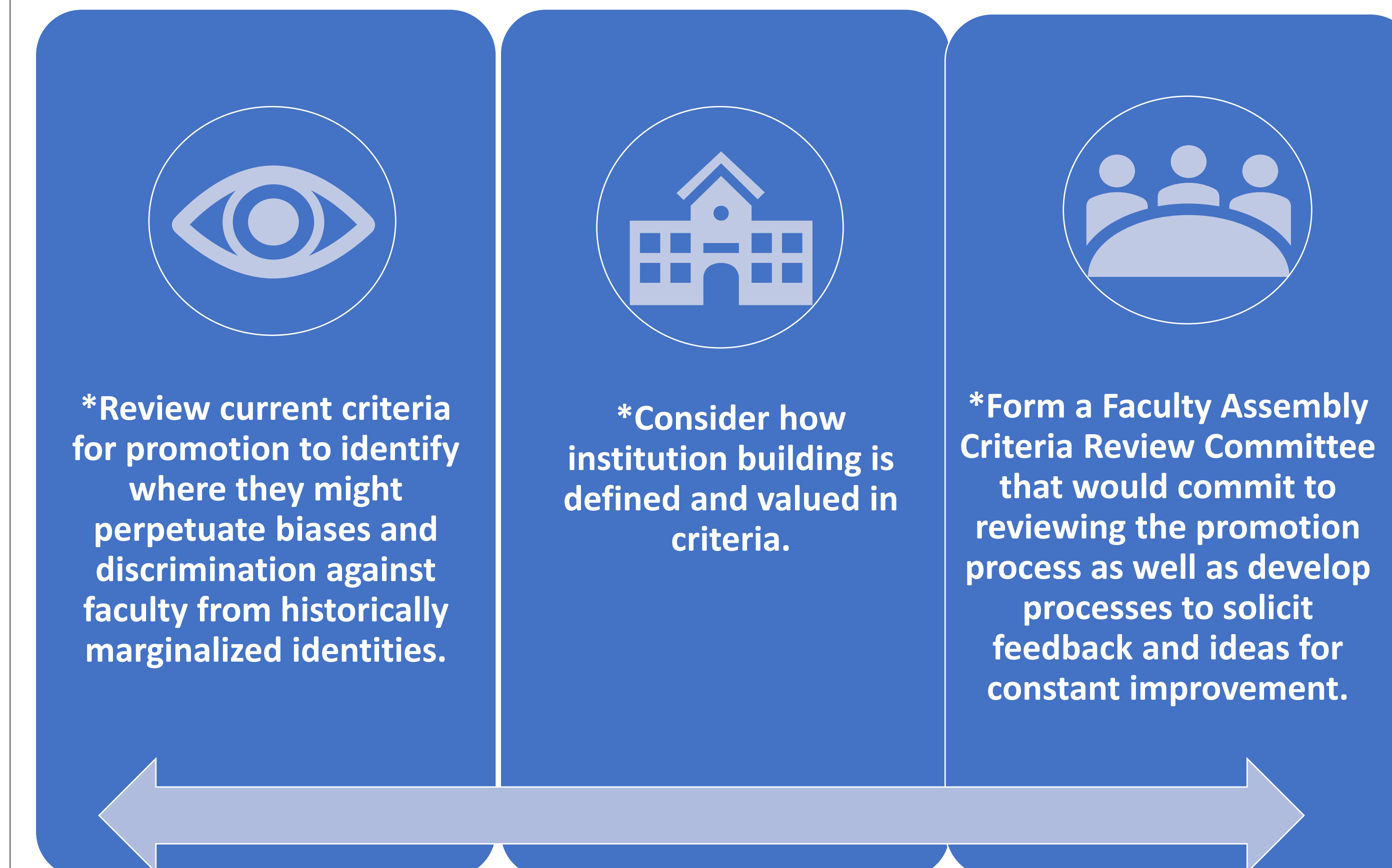
Why Should UCCS Reconsider Scholarship?



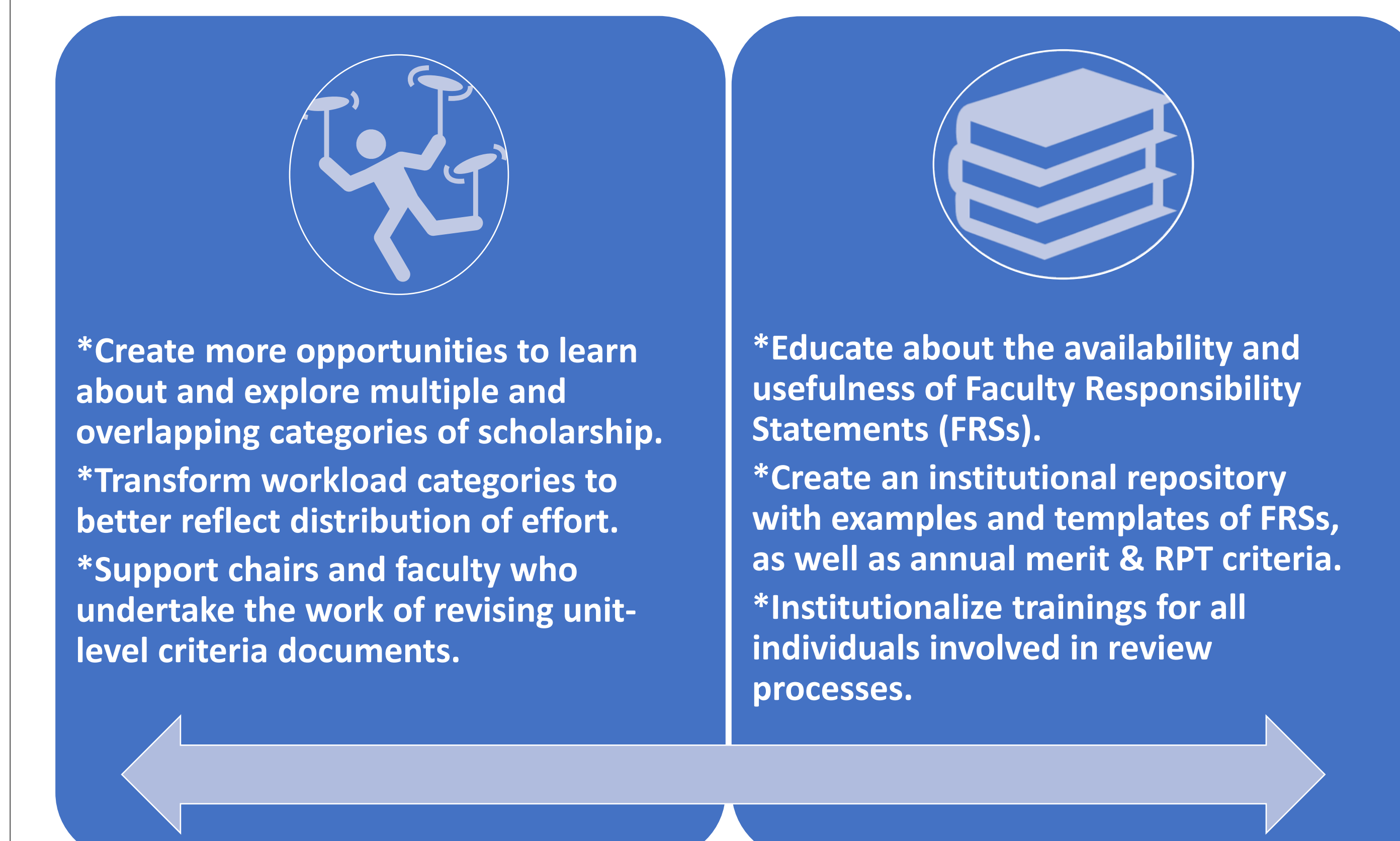
Rewarding What We Do: The time has come to move beyond mutually exclusive concepts of teaching versus research versus service. The result will be a healthier and more balanced workforce that is better aligned with institutional goals and student needs.



Recommendations: Immediate Strategies



Recommendations: Longer-Term Change Strategies



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Faculty Awards: Moving toward more transparency and inclusivity in achievement recognition

Read the Full Coding Report Here:



Background

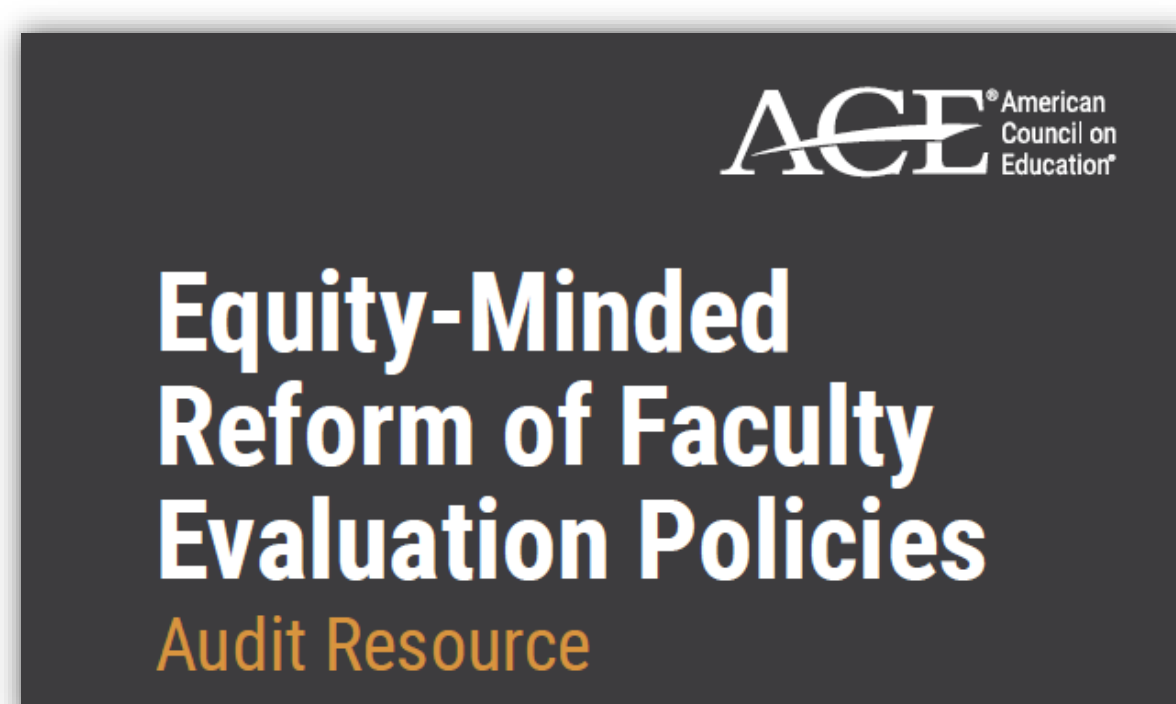
Retention, promotion and tenure practices at UCCS routinely use faculty awards for teaching, research, and service as markers of excellence in these respective areas. However, previous research indicates that women-identified faculty often win fewer awards (Holmes et al., 2011; Meho, 2021) and, when they do win, these awards do not appear to translate to greater prestige or are otherwise undervalued (Butcher & Kersey, 2015; Ma, 2019). When it comes to promotion and tenure decisions, this undervaluing or lack of parity in awards given presents a potential barrier form women-identified faculty as they work towards the Full Professor rank. Our team set out to inventory the faculty awards on campus and conduct a systematic review of all associated documents pertaining to criteria and selection of winners to determine – and offer recommendations for enhancing – the inclusivity of existing criteria.

Methods

The Project CREST team began by gathering a list of UCCS internal awards and seed grants for the past 10 years. We then:

- Obtained statistics of awardees based on rank, gender, and ethnicity which indicated awards had been inequitably distributed.
- Created an award coding rubric adapted from O'Meara's (2022) **Equity-Minded Faculty Evaluation Audit Resource** -
- Two independent coders reviewed each award call and reviewer instructions (if available) and scored the call using the rubric. Scores for each award are below (Figure 1).
- We shared a report of our findings with campus and reached out individually to the key personnel leading campus awards and reviews to offer recommendations for strengthening the equity practices in their award processes.

We based the creation of the Equity-Minded Faculty Award Rubric on the audit resource published in 2022 by Dr. KerryAnn O'Meara. This rubric allowed our team to code for how the award call addresses diversity, equity, and inclusivity in its criteria and evaluation processes. Our adaptation resulted in the coding results for UCCS campus award as below and includes 10 different domains.

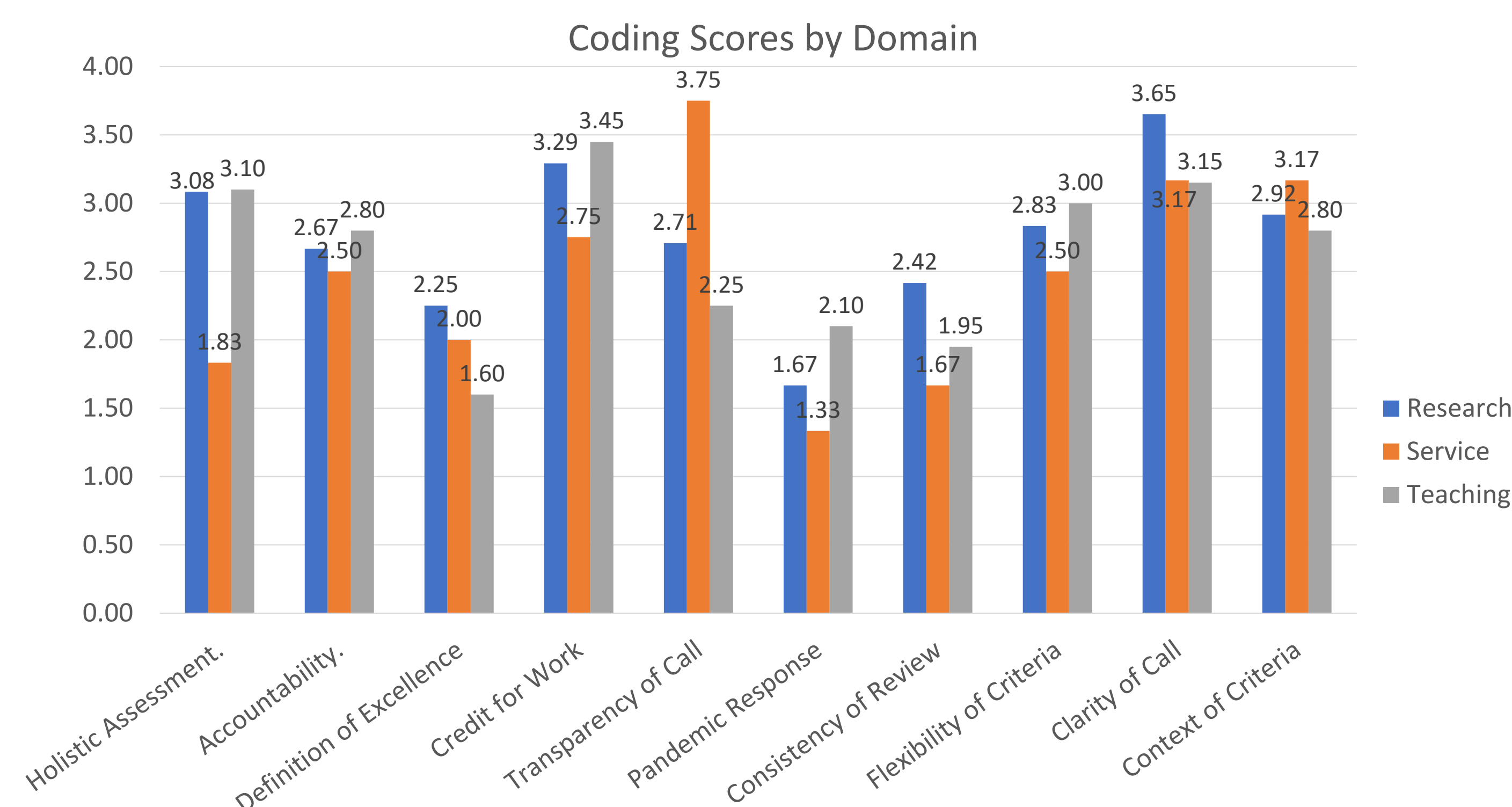
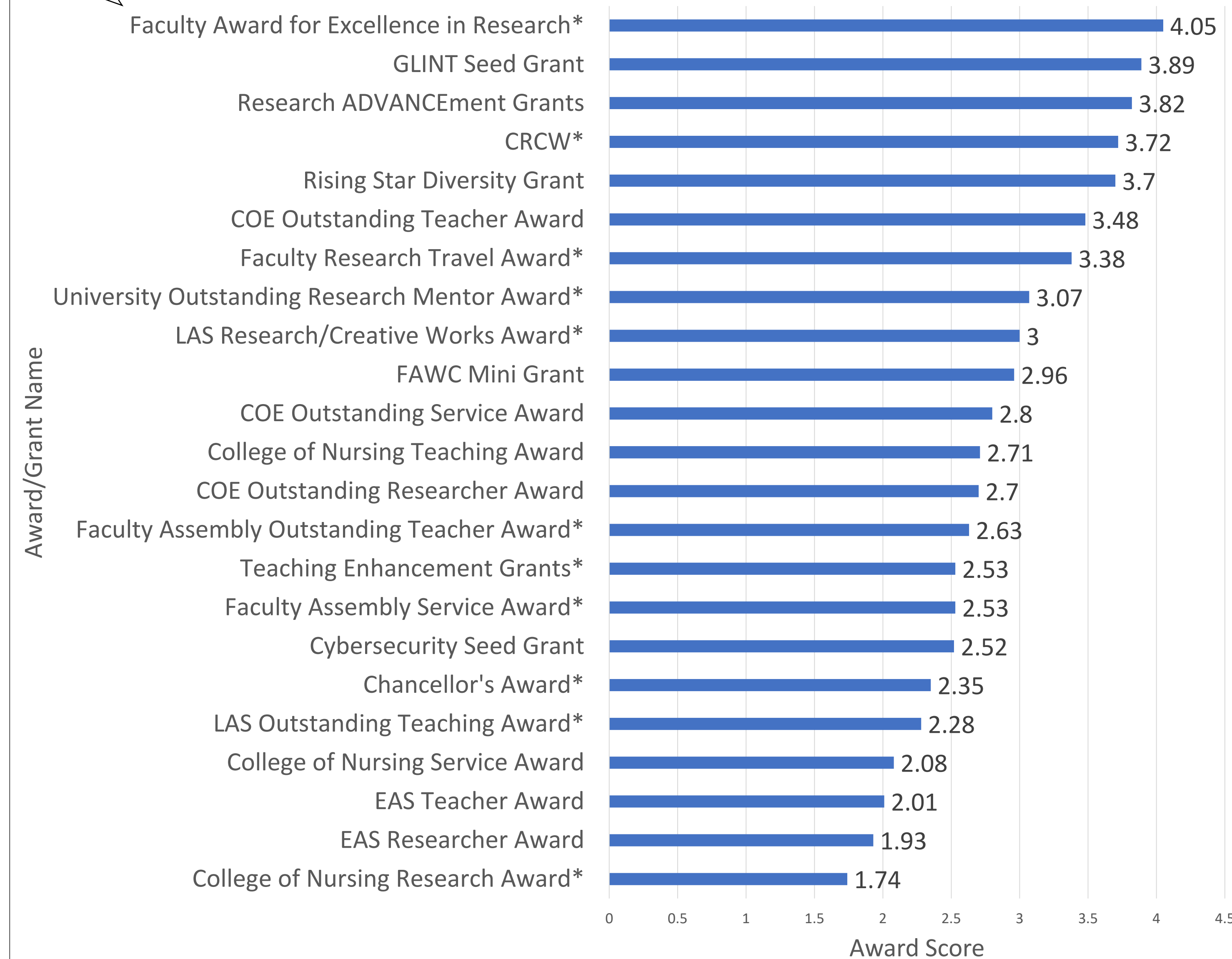


1 Transparency
1.1 Information related to faculty award evaluation is intentionally shared, accessible, and accurate.
1.2 The award review criteria are broad and embrace the interests and talents of faculty from multiple social groups and backgrounds.
2 Clarity
2.1 Information is provided in a way that is easily understood.
2.2 There is ambiguity that could invite bias, guessing, and misinterpretation.
2.3 The award/seed grant evaluation criteria are outdated.
3 Accountability
3.1 The review process is explained in a clear manner and there are responsible actors and steps identified.
4 Consistency
4.1 Essential parts of the award evaluation process are standardized and applied consistently so that when the same kind of activity is evaluated or procedure enacted, faculty can expect similar treatment.
4.2 There are informal processes or practices that reward certain types of activities that may give one group of potential awardees an advantage.
5 Context
5.1 The award criteria take into account new contexts and novel forms of excellence.
6 Credit
6.1 Award criteria specifically recognize mission-critical work (e.g., mentoring, institutional service, DEI).
6.2 Award evaluation policies provide a way to take into account past performance when it is important to do so.
7 Flexibility
7.1 Award evaluation policies are flexible enough to adapt to the new, different, and changing set of contexts shaping faculty careers and work.
8 Pandemic Impacts
8.1 The award evaluation criteria or policies take into account the long-term impacts of the pandemic, and its corresponding restrictions and disruptions on faculty work.
8.2 The award evaluation considers how caregiving demands amplified considerably during the pandemic both personally and professionally in terms of emotional labor and meeting student, staff, and colleague needs.
9 Holistic assessment
9.1 There is a holistic assessment of teaching/research/service (e.g., there is not an overreliance on FQoH indices/committees).
10 Definition of Excellence by Rank
10.1 Policies include what it means to meet and/or exceed teaching/research/service criteria relevant to different appointment types and ranks.

* Indicates award or seed grant that has been or is intended to be revised per Project CREST recommendations

Coding Results

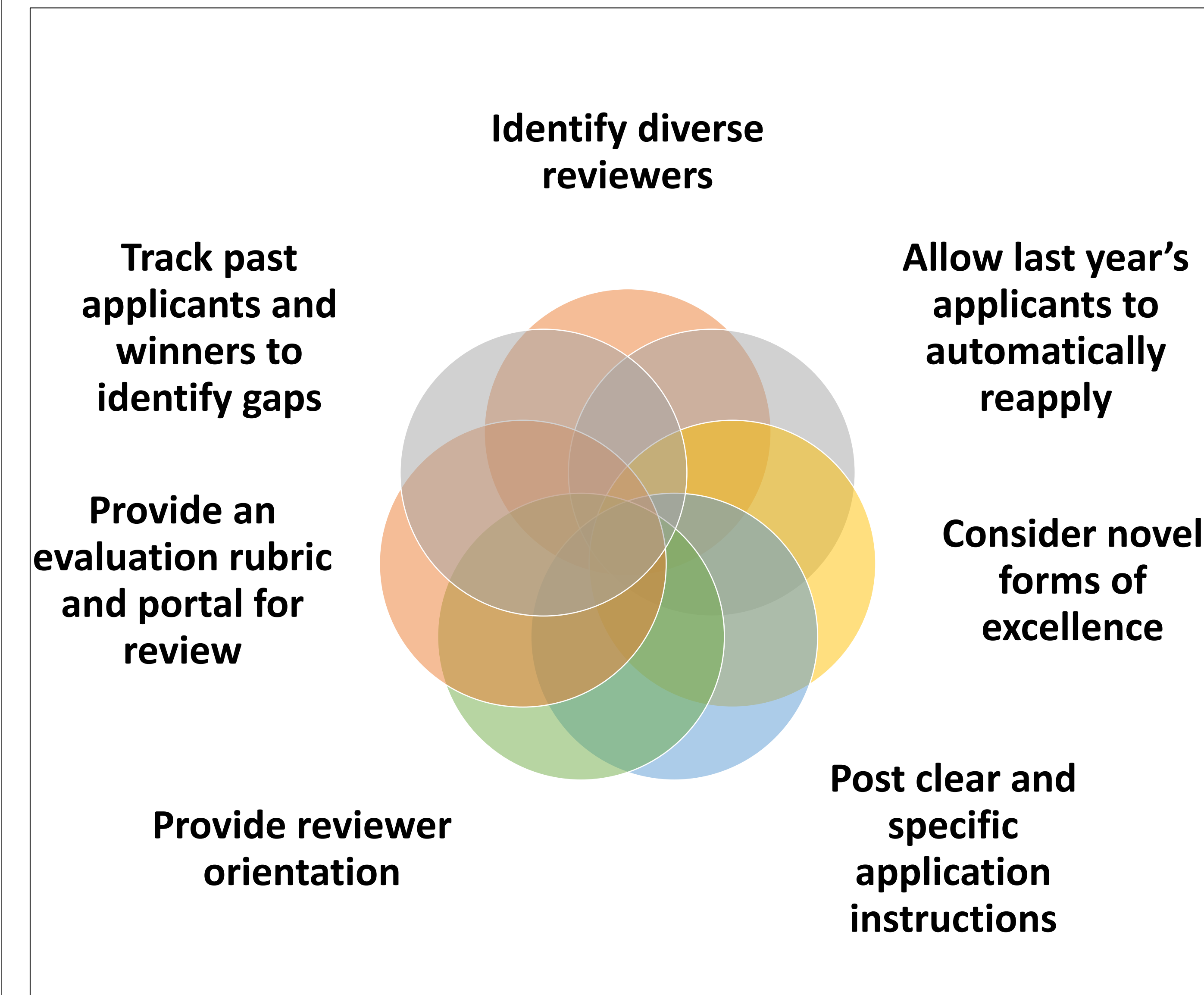
Overall Coding Scores



Impact of Campus Recommendations

As a result of this coding procedure, recommendations were made to award committees in each unit on how to improve the equity, inclusiveness, and fairness of their awards. Below are the awards that have adopted or plan to adopt reviewer rubrics and/or modify their award calls to reflect more equitable review process:

- **67% of research awards have been or are planned to be revised per our recommendations**
- **LAS awards in three categories of research, service, and teaching were revised**
- **Campus awards in research, service, teaching, and Chancellor's award were revised**
- **All the awards in Office of Research were updated**



Next Steps

- Key personnel responsible for award calls and review should consider the coding report and recommendations
- Track winners to understand any equity gaps
- Provide reviewers instructions and a clear rubric by which to evaluate submissions