Diversity Statements in STEM Faculty Job Applications

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Dr. Torrie Cropps, University of Texas at Dallas

Dr. Torrie Cropps is a Postdoctoral Research Associate in the Office of Diversity, Equity, & Inclusion at University of Texas at Dallas. Her research there focuses broadly on strategies to promote equity for marginalized populations in engineering. Torrie earned her PhD in Agricultural Education from Purdue University. Her research interests include critical qualitative research, Black women in graduate education, equity and inclusion in agriculture + STEM, and mentoring and advising in graduate education.

Samara Rose Boyle

Samara is an undergraduate studying neuroscience at Rice University in Houston, TX. She works as a research assistant for Dr. Yvette E. Pearson in the George R. Brown School of Engineering. Her primary research focus is the advancement of diversity, equity, and inclusion in engineering education.

Dr. Canek Moises Luna Phillips, Rice University

Dr. Canek Phillips is a Research Scientist at in the George R. Brown School of Engineering at Rice University where his research interests touch broadly on efforts to promote greater equity for underrepresented groups in engineering. Canek earned his PhD from the Purdue School of Engineering Education in 2016 and worked as a graduate research assistant in Dr. Alice Pawley’s Feminist Research in Engineering Education Lab. Canek was brought on at Rice originally as a postdoctoral research fellow in 2017 on an NSF-funded study that investigates the efficacy of an audio-based method of learning mathematics where he now serves as Co-PI. In 2019, he began working as Co-PI on another NSF-funded study to reduce barriers in the hiring of underrepresented racial minority faculty in data science and data engineering fields.
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Introduction
Faculty Job Application Materials

- Cover Letter
- Curriculum Vitae
- Research Statements
- Teaching Statements
- References

Diversity Statements
Foci of Diversity Statements

Diverse Backgrounds
Coursework
Research
Community

Best Practices for Diversity Statements

- Rubric
- Sample Prompts
- Bias Training
- Diversity Advocate

Pros and Cons of Diversity Statements

**PROS**
- Signals commitment to diversity
- Recognition of invisible labor
- Forced to consider diversity

**CONS**
- Perceived as institutional lip service
- Risk of demographic information exposure
Research Questions

Research Question 1: How prevalent are diversity statement requirements for STEM faculty jobs?

Research Question 2: How do diversity statement requirements differ by discipline? By institutional characteristics?

Research Question 3: To what extent do universities equip search committees to evaluate diversity statements?
Methodology
Data Collection: Survey Distribution Summary

**Pilot Survey**
- TSU, UH, Rice Only
- N=15
- Response Quality

**Initial Distribution**
- Established Networks
- N=72
- Concern with Lack of Representation

**Follow-up**
- Partnered with AAAS
- N=129
- Larger Representation in Key Areas

151 possible interviews out of 216 survey respondents
## Respondent Demographics*

*Number and percentage of respondents who answered questions regarding diversity statements

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<tr>
<th>Race/Ethnicity</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Asian</td>
<td>7 (4%)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>30 (18%)</td>
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<tr>
<td>Hispanic/Latinx</td>
<td>17 (10%)</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>White</td>
<td>98 (59%)</td>
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<tr>
<td>I Prefer Not to Answer</td>
<td>11 (7%)</td>
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<table>
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<tr>
<th>Gender Identity</th>
<th>n (%)</th>
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<tr>
<td>Woman</td>
<td>78 (51%)</td>
</tr>
<tr>
<td>Man</td>
<td>70 (45%)</td>
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<tr>
<td>Gender Identity Not Listed</td>
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<tr>
<td>Trans</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>I Prefer Not to Answer</td>
<td>5 (3%)</td>
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</tbody>
</table>
Discipline of Primary Appointment

- Computer Sciences: 18
- Discipline-based Education: 8
- Engineering: 55
- Environmental Sciences: 3
- Life Sciences: 24
- Mathematical Sciences: 13
- Other: 10
- Physical Sciences: 26
Findings
Research Question 1: How prevalent are diversity statement requirements for STEM faculty jobs?
Does Your Department Require Diversity Statements? (n=158)

- Yes (n=52) - 53%
- Not Sure (n=22) - 14%
- No (n=84) - 33%
By Carnegie Classification:
Does Your Department Require Diversity Statements? (n=151)
By MSI Status:
Does Your Department Require Diversity Statements? (n=151)
By Combined MSI Status:
Does Your Department Require Diversity Statements? (n=151)

- By MSI Status:
  - All MSIs (n=68):
    - Yes: 21%
    - Not Sure: 21%
    - No: 59%
  - Non-MSIs (n=83):
    - Yes: 36%
    - Not Sure: 13%
    - No: 51%
Research Question 2: How do diversity statement requirements differ by discipline? By institutional characteristics?
By Discipline: Does Your Department Require Diversity Statements?

By Discipline:

- Computer Sciences: Yes 67%, Not Sure 38%, No 17%
- Discipline-based Education: Yes 38%, Not Sure 38%, No 17%
- Engineering: Yes 33%, Not Sure 0%, No 16%
- Environmental Sciences: Yes 51%, Not Sure 0%, No 0%
- Life Sciences: Yes 67%, Not Sure 33%, No 0%
- Mathematical Sciences: Yes 77%, Not Sure 0%, No 0%
- Other: Yes 80%, Not Sure 0%, No 0%
- Physical Sciences: Yes 54%, Not Sure 31%, No 15%

Proportion (n=157)
All Disciplines:
Diversity statements should **not** be required for positions where research in a technical field is a primary responsibility for the position.
By Discipline:
Diversity statements should **not** be required for positions where research in a technical field is a primary responsibility for the position.
By Carnegie Classification:
Diversity statements should **not** be required for positions where research in a technical field is a primary responsibility for the position.
By MSI Status:
Diversity statements should **not** be required for positions where research in a technical field is a primary responsibility for the position.
By Combined MSI Status:
Diversity statements should **not** be required for positions where research in a technical field is a primary responsibility for the position.
Research Question 3: To what extent do universities equip search committees to evaluate diversity statements?
All Respondents:
Does your institution provide guidance on evaluating diversity statements?* (n=50)

- Yes (n=14)
- Not Sure (n=6)
- No (n=30)

*Represents all respondents who indicated their departments require diversity statements
By Discipline:
Does your institution provide guidance on evaluating diversity statements? (n=50)

- Computer Sciences (n=3): 100% Yes, 0% Not sure, 0% No
- Discipline-based Education (n=3): 100% Yes, 0% Not sure, 0% No
- Engineering (n=17): 41% Yes, 41% Not sure, 18% No
- Environmental Sciences (n=2): 0% Yes, 0% Not sure, 100% No
- Life Sciences (n=12): 50% Yes, 50% Not sure, 0% No
- Mathematical Sciences (n=3): 50% Yes, 50% Not sure, 0% No
- Other (n=2): 0% Yes, 0% Not sure, 100% No
- Physical Sciences (n=8): 0% Yes, 0% Not sure, 88% No

Legend:
- Blue: Yes
- Gray: Not sure
- Red: No
By Carnegie Classification:
Does your institution provide guidance on evaluating diversity statements? (n=43)
By MSI Status:
Does your institution provide guidance on evaluating diversity statements? (n=43)
By Combined MSI Status:
Does your institution provide guidance on evaluating diversity statements? (n=43)
Summary

Requiring Diversity Statements

• Relatively few programs/departments require diversity statements.

• Most faculty strongly disagreed with the statement that diversity statements should not be required for positions that were primarily research-focused.

• MSI faculty were more than twice as likely than non-MSI faculty to somewhat/strongly agree with the statement that diversity statements should not be required for positions that were primarily research-focused (17% vs 7%).

Evaluating Diversity Statements

• R1 and R2 institutions were nearly 5 times more likely than master’s institutions to provide guidance on evaluating diversity statements.

• For departments that require diversity statements, few are given guidance for evaluation.

• Possible impacts include:
  ✓ Questionable rigor in evaluation
  ✓ Bias that could influence evaluation
Future Work

- Statistical Analyses
- Triangulation
- Interviews
Thank You!

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