

Evaluating Family Leave Policies in University STEM Departments

Ethan Messier, Abigail Goering, Dr. Taylor Higgins

Introduction:

- There remains a large gender disparity in the percentage of doctoral degrees earned by women in STEM fields:
 - Physical Sciences: 34%
 - Engineering: 23%
 - Mathematics: 29%
- Motherhood and family planning pose significant barriers to retention.
 - Stigma surrounding family planning identified as a major factor (Ceci & Williams, 2022).
 - Poorly structured family leave policies exacerbate the issue (Hsain et al., 2021).
 - Women in academia often sacrifice family to remain in their fields, while men generally do not make the same trade-off (Mason et al., 2013).
- Extensive demographic data for graduate students, but limited/missing-data for tenure-track and tenured faculty.
- **Hypothesis:**
 - Comprehensiveness of a university's parental/family leave policy directly attributes to the retention and recruitment of tenure-track female faculty.

Methods:

- **Literature Review:** Analyzed existing research on tenure-track gender diversity and family-formation policies.
- **Policy Trends:** Identified key patterns in family leave policies across U.S. universities.
- **Gender Disparities:** Examined tenure-track and tenured faculty demographics.
- **Rubric Development:** Created rubric to score university family leave policies.
- **Analysis:** Compared rubric scores with university rankings.
- **Survey Design:** Developed survey to assess faculty and grad student experiences with family leave.

	Score 1	Score 2	Score 3	Score 4	Score 5
Restrictions on Leave Policy	numerous restrictions; very high accrual rate	several restrictions; high accrual rate	some restrictions; moderate accrual rate	minimal restrictions; low accrual	no restrictions; no accrual rate

Policy Score = Rubric Score (1-5) + No. Months Paid Leave Supported Over 4 Years + No. Births Supported Over 4 Years

Results:

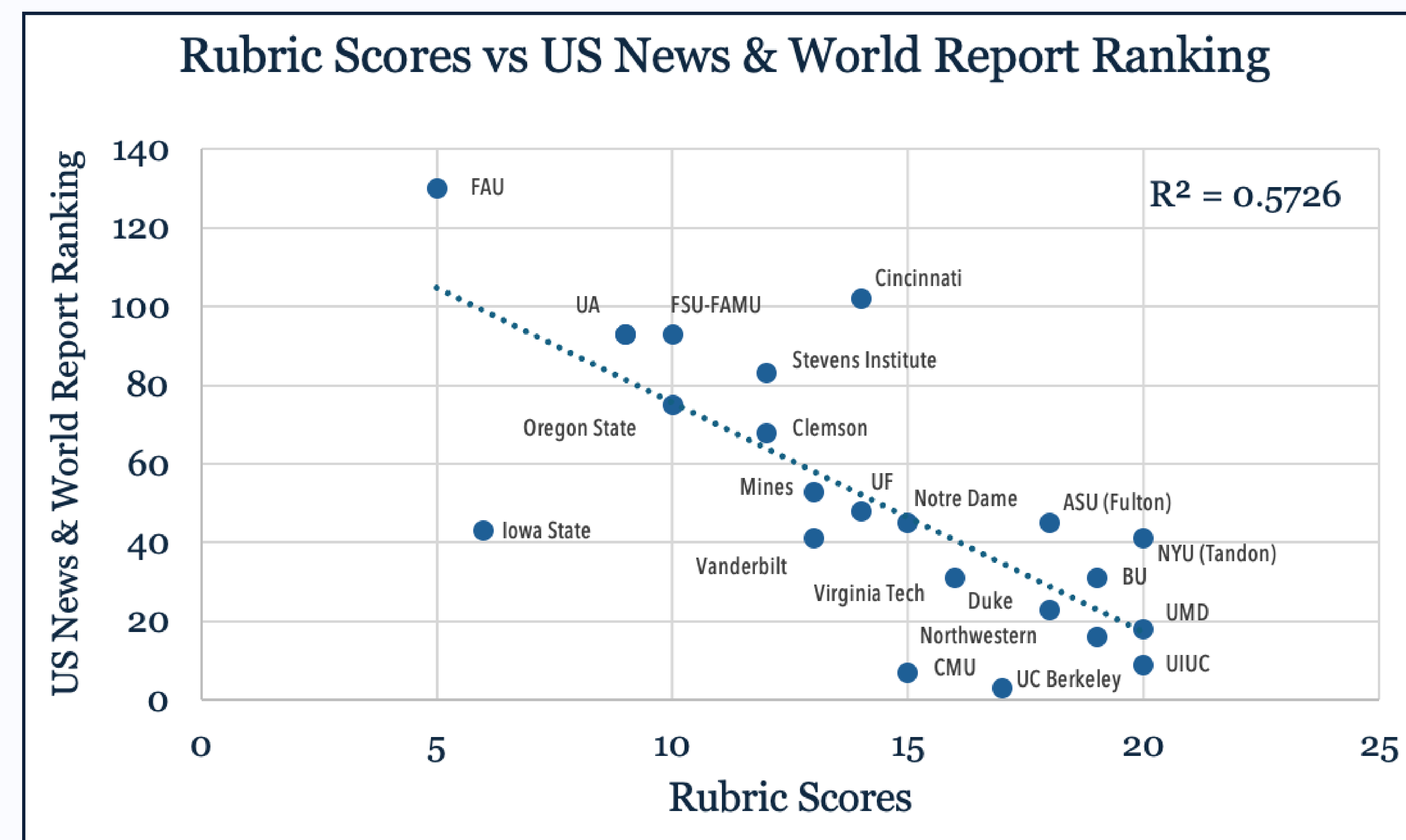


Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Ranking, 2025

5-20	14
current range of rubric scores	mean rubric score

• **Next Steps:**

- Analyze correlation between rubric scores and tenure/tenure-track rates.
- Distribute faculty survey across FSU STEM departments.
- Continue to update rubric scores.
- Develop department-specific data request form.

Conclusion:

- Other factors that contribute to university rankings and female faculty representation: historical context, institution size, research funding.
- Early data shows a significant correlation observed between university rankings and quality of parental leave policy based on rubric scores.
- Preliminary results support the hypothesis that strong family leave policies are essential for attracting and retaining female faculty in STEM.

References:



Acknowledgements:

We would like to extend special thanks to our project advisors, Dr. Taylor Higgins and Dr. Andrea Meltzer for making this research possible.