FSU FLORIDA STATE

# **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 STEM fields:
  - Physical Sciences: 34%
  - Engineering: 23%
  - Mathematics: 29%
- Motherhood and family planning pose significan barriers to retention.
  - Stigma surrounding family planning identifie 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., 20)
- Extensive demographic data for graduate student but limited/missing-data for tenure-track and tenured faculty.
- Hypothesis:
  - Comprehensiveness of a university's parental/family leave policy directly attribute the retention and recruitment of tenure-tracl female faculty.

# Methods:

- Literature Review: Analyzed existing research on ter 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 tenu faculty demographics.
- Rubric Development: Created rubric to score univers family leave policies.
- Analysis: Compared rubric scores with university rankings.
- Survey Design: Developed survey to assess faculty an grad student experiences with family leave.

Restrictions on Leave Policy       numerous restrictions; very high accrual rate       several restrictions; high accrual rate       some restrictions; moderate accrual rate       minimal restrictions; low accrual       motors accrual         Policy Score = Rubric Score (1-5) + No. Months Paid Leave Supported Ove + No. Births Supported Over 4 Years       Results:       Image: Comparison of the second rate       Results:         Rubric Scores vs US News & World Report Ranking       Results:       Results:       Results:         Original of the second s		Score 1	Score 2	Score 3	Score 4	Scor
Policy Score = Rubric Score (1-5) + No. Months Paid Leave Supported Ove + No. Births Supported Over 4 Years Results: Rubric Scores vs US News & World Report Ranking 140 100 100 100 100 100 100 100	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 restrict accrua
Results:         Rubric Scores vs US News & World Report Ranking         000       120       0       0       R <sup>2</sup> = 0.5         120       0       0       0       0       R <sup>2</sup> = 0.5         100       0       0       0       0       0       R <sup>2</sup> = 0.5         100       0 <td>Policy Score</td> <td>= Rubric Score + No</td> <td>e (1-5) + No. M o. Births Supp</td> <td>Ionths Paid Lo orted Over 4</td> <td>eave Supporteo Years</td> <td>d Over 4</td>	Policy Score	= Rubric Score + No	e (1-5) + No. M o. Births Supp	Ionths Paid Lo orted Over 4	eave Supporteo Years	d Over 4
Rubric Scores vs US News & World Report Ranking Rubric Scores vs US News & World Report Ranking R <sup>2</sup> = 0.5 R <sup>3</sup> = 0 R <sup>3</sup> =			Res	sults:		
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Research to us Ne	Ru	bric Scores	vs US New	s & World I	Report Rank	ting
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Re 5-20 To use the state of the scores of the score of	<sup>8</sup> 140 μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ μ	• F/	AU		R2	= 0.572
Stevens Institute Stevens Insti		•••	UA FSU-	FAMU Cincinn	ati	
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Re <b>5</b> -20 <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	80 Kebo			Stevens Institute		
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Ra 5-20 CMU	orld Vorld		Oregon State	Clemson		
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Rest Current range of rubric scores • Next Steps: • Anglurge correlation between rubric scores and tonurg/tenung transition for the statement of the statemen	≶ ∛ 40 —		lowa State	anderbilt	re Dame ASU (Fulton)	(Tandon)
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Re <b>5-20 14 14 current range of rubric scores 14 14 15 15 15 15 15 15 15 15</b>	N 20			Virginia Tech No	Duke UN	
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Re          5-20       14         current range of rubric scores       mean rubric score         • Next Steps:       • Analyza correlation between rubric scores and tonuro (tonuro trade)	р Бор		10	15	UC Berkeley	
Figure 1: Scores on parental leave rubric compared to US News & World Report "Best Engineering Schools" Ra <b>5-20 14</b> current range of rubric scores nean rubric score Next Steps:		Э	Ru	bric Scores	20	
<b>5-20 14</b> current range of rubric scores mean rubric score • Next Steps:	Figure 1: Scores on	parental leave rubric	c compared to US Ne	ws & World Report '	'Best Engineering Sch	ools" Ranki
• Next Steps:		5_2	20		11	
• Next Steps:		UT2	Tubric scores	moon	LT rubric score	
• Next Steps:						
Applyze correlation between rubric coerce and tenuro/tenuro trad	• Next Step	<b>S:</b>				
• Distribute feculty survey ecross FSU STEM departments	$\circ$ Analy:	ze correlation	between rub	ric scores and	tenure/tenure	e-track r





- funding.
- scores.
- STEM.

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

### **Conclusion:**

• Other factors that contribute to university rankings and female faculty representation: historical context, institution size, research

• Early data shows a significant correlation observed between university rankings and quality of parental leave policy based on rubric

• Preliminary results support the hypothesis that strong family leave policies are essential for attracting and retaining female faculty in



### **References:**

### **Acknowledgements:**