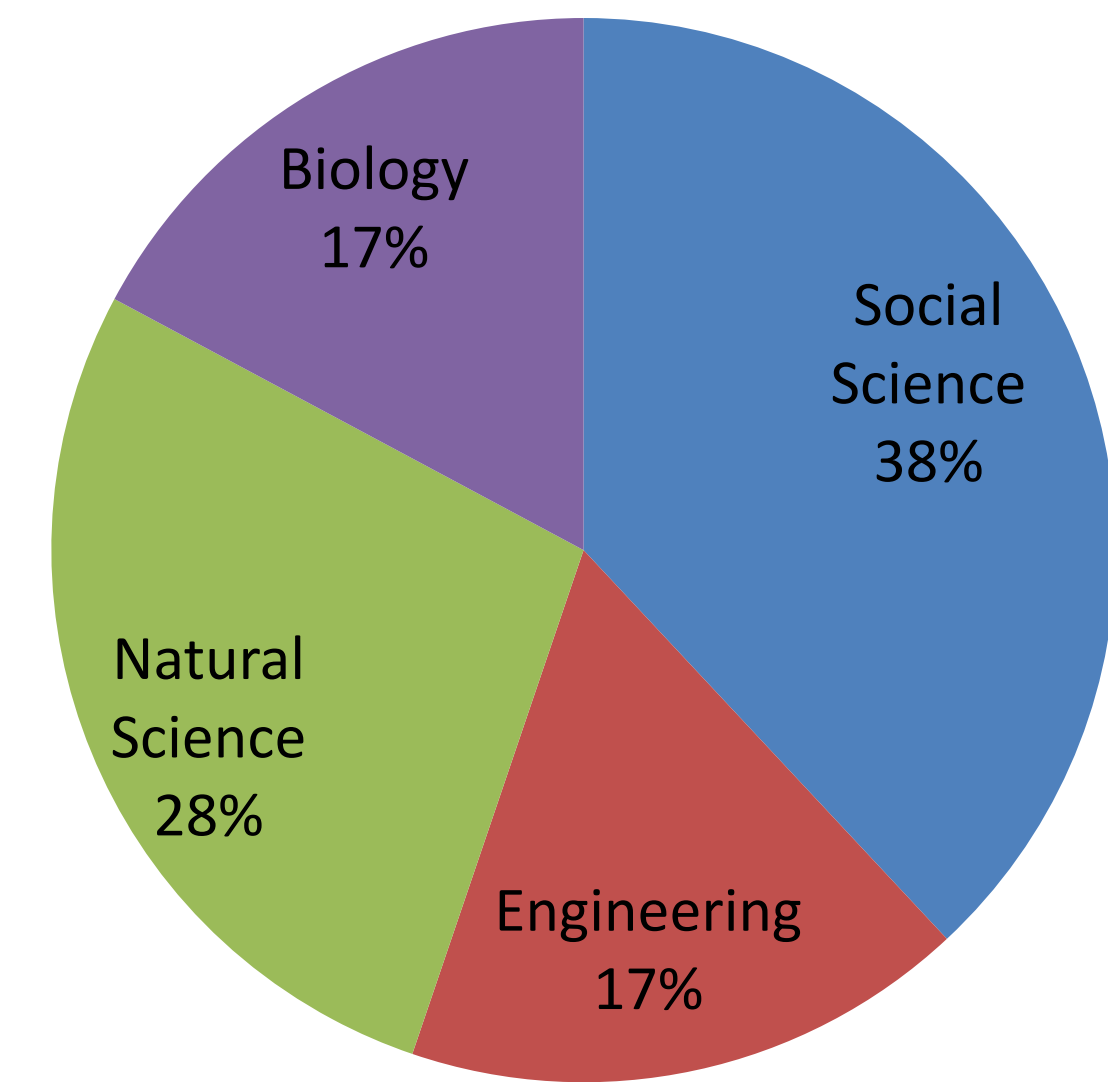


Abstract

- STEM women faculty (N=168) from ten private, mid-sized, research universities completed a survey assessing perceptions of work environment and involvement in interdisciplinary (ID) and collaborative research.
- In order to move beyond gender comparisons and essentializing conceptions of women's preferences, we follow a more contextual approach that focuses on variability among STEM women.
- We examined contextual factors operating at these levels:
 - Individual level
 - Discipline
 - Parental status
 - Departmental level
 - Composition - % of women faculty in home department
 - University level
 - Availability of policies/programs to support work life balance
- Findings indicate that factors such as discipline, the gender composition of the department, and availability of work-life balance policies and programs play a major role in work satisfaction, department climate, and perceptions of the fairness and equity of university procedures. These factors play a minor role in perceptions of and involvement in ID and collaborative research.

Discipline

% Respondents in Each Category



Social Science includes psychology, sociology, anthropology, and economics

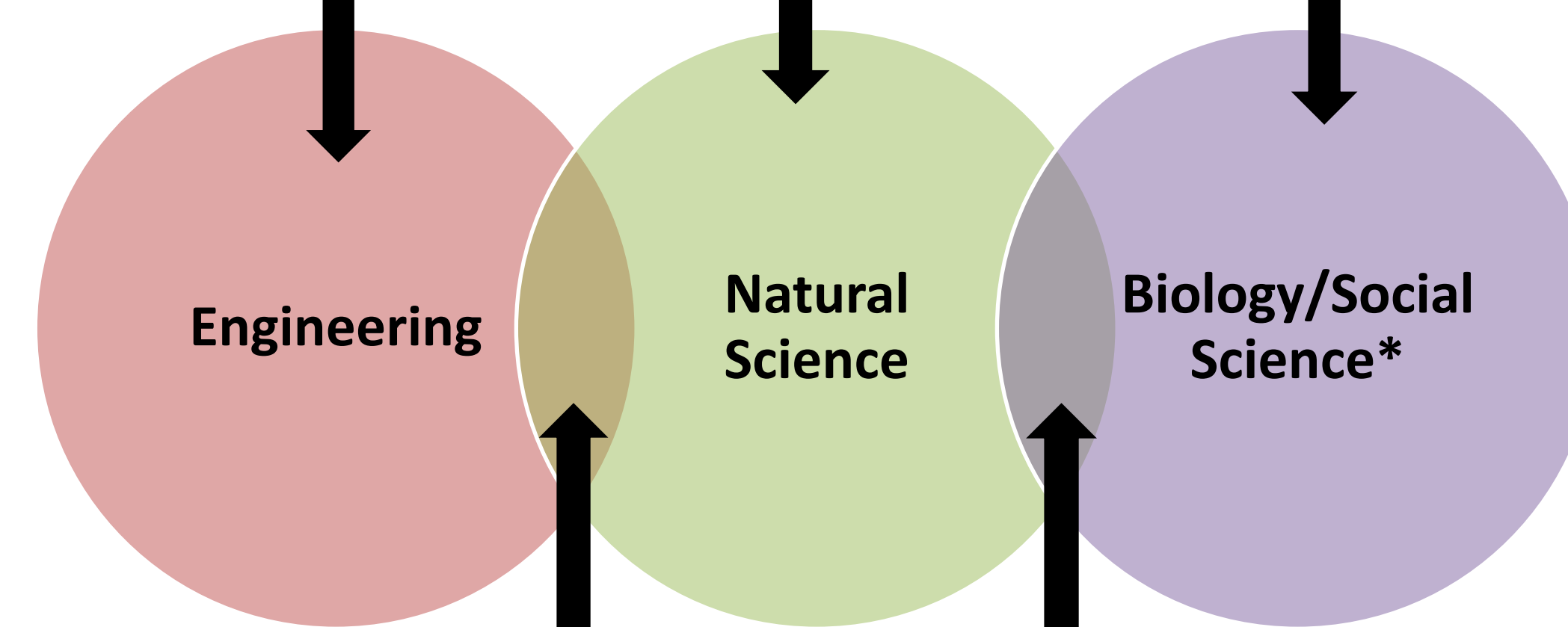
Natural Science includes mathematics and all science departments except biology

Significant Differences and Similarities

- Most likely to feel isolated in department
- Lowest job satisfaction
- Lowest satisfaction with workload
- Least positive perception of department culture
- Least likely to feel department is fair
- Perceive the most impediments to ID research
- Highest frequency of ID activities

- Moderate isolation in department
- Highest # of collaborators
- Fewest concerns about collaboration

- Least likely to feel isolated in department
- Highest feeling of fit in department
- Highest % of collaborators who are women
- Lowest % of publications that are coauthored



*There were no significant differences between Biology and Social Science so they are combined in this graphic.

- Equal feeling of fit in department
- Equal feelings as department member
- Equal frequency of ID activities
- Equal % of collaborators who are women

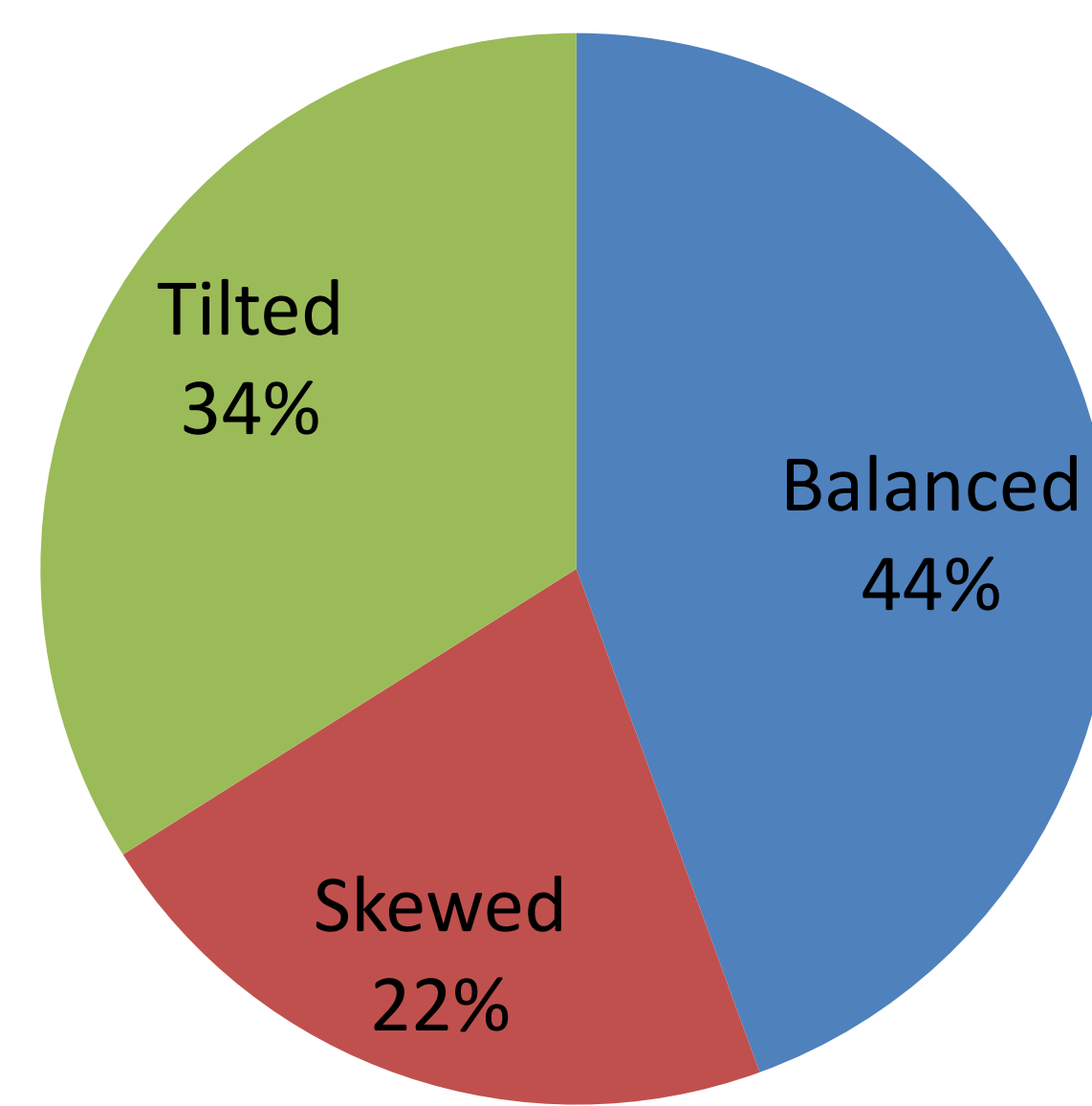
- Equal job satisfaction
- Equal satisfaction with workload
- Equal perceptions of department culture
- Equal feeling that department is fair
- Perceive equal impediments to ID research
- Equal frequency of ID activities

Association of Discipline & Gender Composition of Department

	Engineering	Natural Science	Biology	Social Science
Skewed	64%	29%	0%	7%
Tilted	18%	56%	64%	11%
Balanced	18%	15%	36%	82%

Gender Composition of Department

% Respondents in Each Category



Skewed = Respondent's department has <16% women

Tilted = Respondent's department has 16% - 35% women

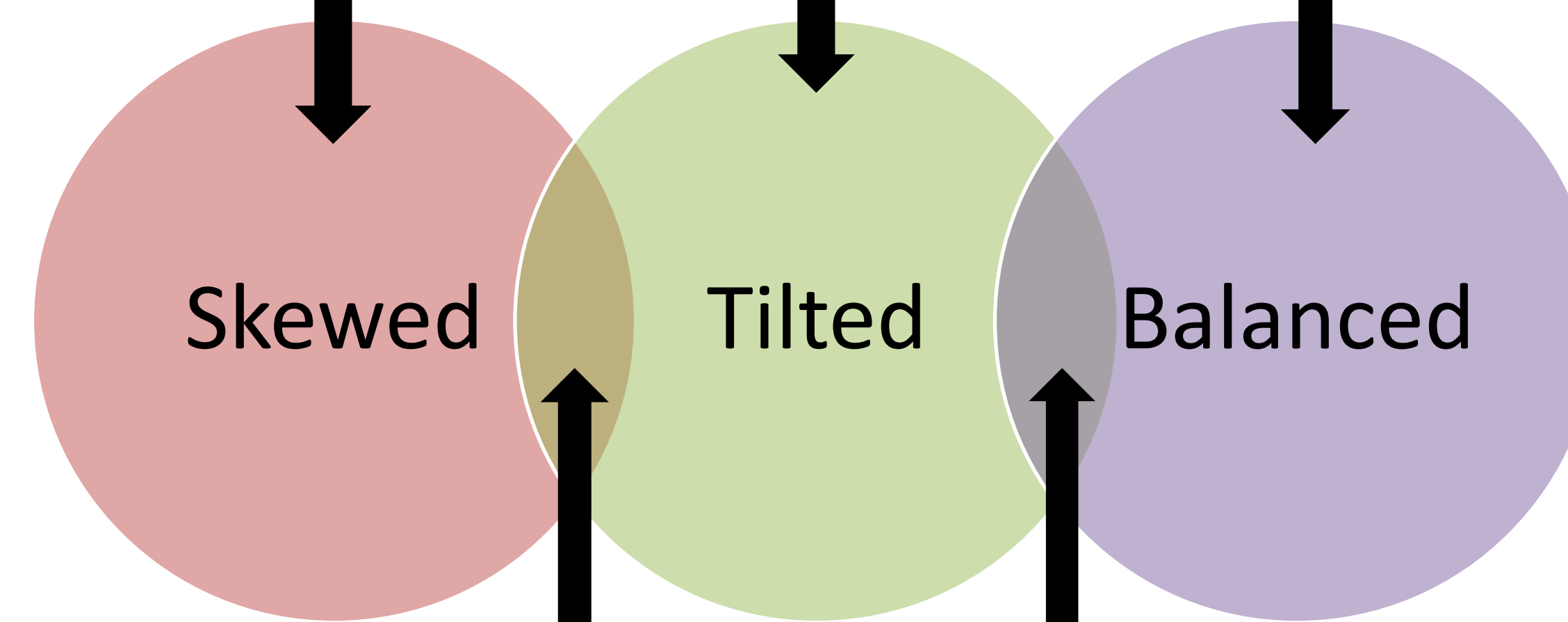
Balanced = Respondent's department has >35% women

Significant Differences and Similarities

- Moderate belief that university procedures are fair
- Moderate feeling of isolation in department

- Least likely to believe university procedures are fair
- Most likely to feel isolated in department
- Least likely to feel department is fair
- Least likely to feel that department has positive culture
- Least likely to feel that institution values ID research

- Most likely to believe university procedures are fair
- Least likely to feel isolated in department
- Highest feeling of fit in department
- Most positive feelings as department member
- Lowest frequency of ID activities
- Highest % of collaborators who are women

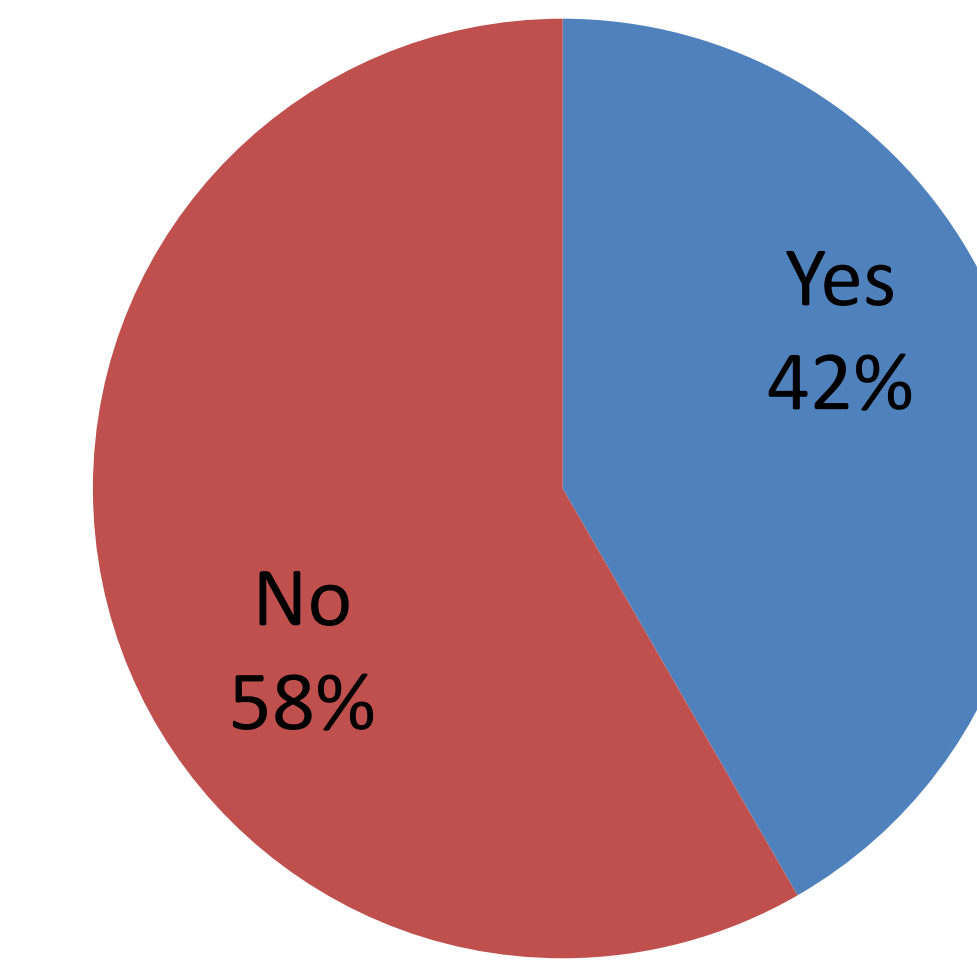


- Equal feeling of fit in department
- Equal feelings as department member
- Equal frequency of ID activities
- Equal % of collaborators who are women

- Equal feeling that department is fair
- Equal feeling that department has positive culture
- Equal agreement that institution values ID research

Parental Status

% Respondents in Each Category



Yes = Does have at least one child under 18 residing with her

No = Does not have a child under 18 residing with her

Significant Effects

- Women who have children were significantly **less satisfied with workload** than women without children.
- Satisfaction with workload was measured by a 4-item scale which included satisfaction with workload, time available for keeping current in their field, work/life balance, and balancing of teaching, research, and service responsibilities.

Work-Life Balance Policies/Programs

Method

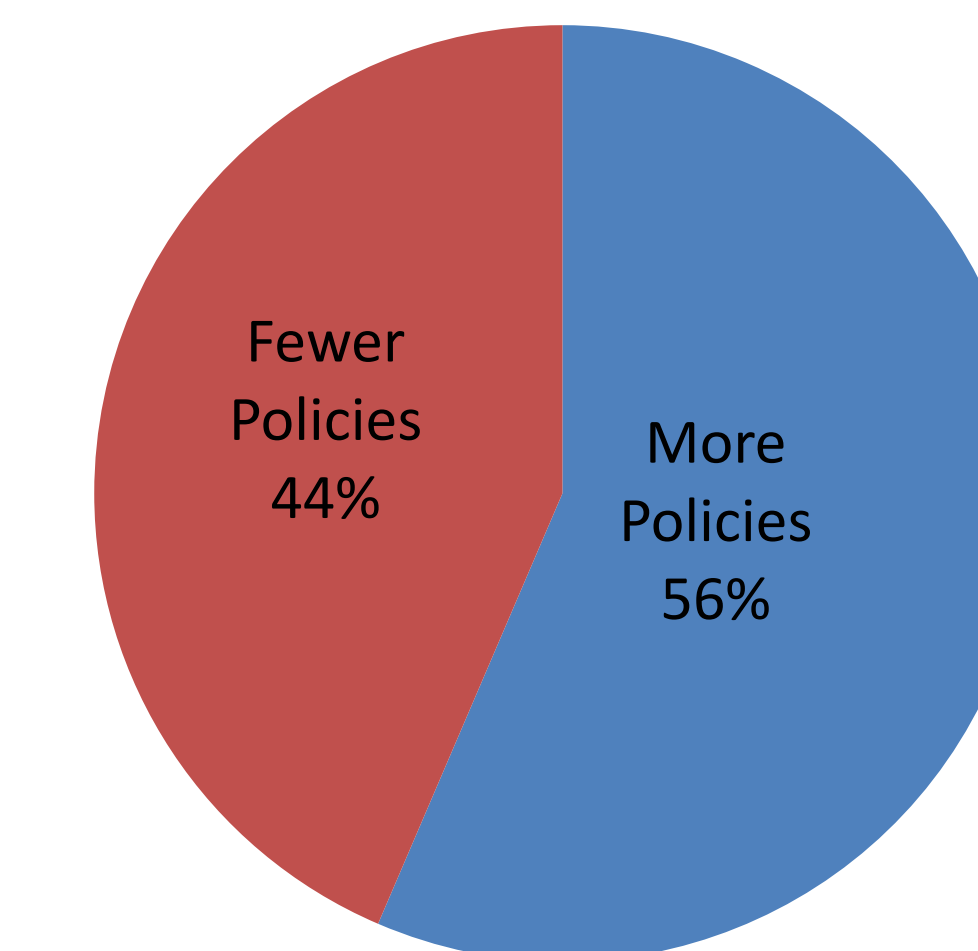
We examined web pages to determine availability these policies/programs:

- Dual career hiring program
- Part-time appointments for tenure track faculty
- Tenure clock extension for parenthood
- Paid parental leave
- On-site child care
- Emergency/back-up child care

Institutions were categorized into two groups:

- More policies/programs
- Fewer policies/programs

% Respondents in Each Category



Significant Effects

- Job satisfaction was higher** for faculty in institutions with more compared to fewer policies/programs.
- Job satisfaction is a 5-item measure of degree of satisfaction with: current faculty position, how career has progressed, teaching environment, resources for research, and opportunities for collaboration.

Conclusions & Implications

- Important to look at differences *among* STEM women.
- Contextual factors were found to play a major role in work climate/satisfaction and a minor role in perceptions of and involvement in ID and collaborative research.
- Parent status does relate to degree of workload stress.
- Work family policies do relate to overall job satisfaction.
- Tokenism in the department appears to be most strongly related to feelings of isolation and perceptions of fairness and equity at the institution level.
- Disciplinary differences appear to be most strongly related to perceptions of department culture and general job satisfaction measures.
- However, with the current data, tokenism and discipline are confounded.
- The Lehigh ADVANCE research team is conducting follow-up ethnographic interviews to understand to what extent experiences of STEM women are shaped by tokenism, disciplinary culture, and institutional practices.