**What are the issues at hand?**

- How hard you think you have to work on the job has real social and economic relevance in academic settings; job effort demands are associated with anxiety, depression, and burnout, physical stress and illness, & reduced job satisfaction.
- Perceptions of having to work hard, can be linked to turnover.
- Higher levels of perceived required work effort can be a source of real but relatively overlooked inequality on the job.
- Differences in perceived required work effort may also be key to understanding sex differences in avoidance of or attrition from academic STEM fields.

**What does this study do?**

- To what extent do tenure-line faculty members’ sex, academic discipline (STEM versus non-STEM), and parenthood status affect their perceived required work effort?
- Gender schemas distort our perception of women’s and men’s competence, resulting in a low evaluation of women.
- Motherhood signals lower performance capacity, effort, and ability; fatherhood signals productivity and dedication to work.
- The assessment of scientific competence is not gender neutral; we rate women as less competent than men at doing hard science.
- In response to gender schemas, assumptions that parenthood lowers their competence, and beliefs that science is not women’s domain, mother STEM scientists may anticipate high effort requirements and strict performance standards at work.

**Data and measurement**

2011 Faculty Caregiving and Workplace Culture survey (313 tenure-line faculty members at a large, U.S. multi-campus public university, 37% response rate)

**Perceived required work effort. A respondent’s level of agreement with the statement “My job requires me to work very hard” (1= strongly disagree, 2=disagree, 3=agree, 4=strongly agree).

**Independent Variable.** We classify respondents as: STEM mother, (STEM father, STEM childless woman, STEM childless man, non-STEM mother, non-STEM father, non-STEM childless woman, or non-STEM childless man. We label the following as STEM fields: animal science, architecture, astronomy, biology, chemistry, crop and social science, entomology, engineering (all branches), food science, mathematics, natural resource science, pharmacy, plant pathology, physics, statistics, and veterinary science.

**Controls**. years of experience at university, academic rank, number of weekly hours in a typical semester that the respondent spends doing research, teach, service, and mentor/advise; level of agreement with statements: “Too many demands are made of me on my job” and “I feel appreciated and valued by departmental colleagues for my research work.” (1=strongly disagree to 4=strongly agree), marital status, number of hours in a typical semester the respondent spends doing caregiving for children/elderly relatives and household chores per week, age of children (if parent), frequency in past year with which “personal and family responsibilities reduced the job effort.” & “personal or family life problems distracted work” (both coded: 1=never to 5=daily).

**What did we find?**

**Major Finding 1:** STEM mothers think they have to work harder than fathers in STEM and non-STEM disciplines, even when they have similar skills, similar perceptions of their work climate, and devote similar time to job and home tasks.

**Major Finding 2:** STEM mothers think they have to work harder than similarly situated mothers in non-STEM disciplines.

**Policy Recommendations**

**Recommendation 1: Clarify guidelines.** Develop clear guidelines for research, service, mentoring, and teaching performance expectations for untenured and tenured faculty members. Spelling out performance standards will give STEM mothers a sense of what they need to do to satisfy departmental requirements.

**Recommendation 2: Publicly display faculty performance evaluations.** Will give STEM mothers a sense of how their performance compares to others, knowledge that might alleviate the sense they are not performing adequately.

**Recommendation 3: Anti Face-time policies.** De-emphasize a 5-day a week, 8-hour a day presence in the office. The inflexibility of “face-time” policies pose difficulties for individuals with any outside work obligations—child-related or not.

**Recommendation 4: Promote talk of parenthood.** Encourage departments to make parenthood an acceptable topic of conversation in the workplace. Doing so might remove the effort some mothers may take to hide or minimize their family commitments in order to be taken seriously.

**Recommendation 5: Policy audits.** Perform anonymous surveys allowing faculty mothers to evaluate the extent to which their needs are being met by university and departmental policies.

**Key References**


