

2016 SULF data: Descriptive analyses of effort, reward, imbalance, and self-rated health

Anna S. Tanimoto
Academia Project

What is effort-reward imbalance (ERI)?



Stockholm
University

NOWSTARS 

- **ERI** is an occupational health model and scale used to measure individual perceptions of the psychosocial work environment as an indicator of employee health.
- **How does it work?** A perceived mismatch between the level of effort put forth at work and the rewards received as compensation for that effort can trigger negative emotions and sustained autonomic arousal. This *imbalance* can be a risk factor for employee health.
- **How is effort measured?** Questions include experience of time pressure, interruptions, and increasing demands at work.
- **How is reward measured?** Questions include recognition for one's work, development opportunities and job security.



Stockholm
University



About the data set

- Complete cases only, $n = 1719$
- General composition of the sample
 - Women *991*
 - Men *728*
- Contract types
 - Permanent *1308*
 - Fixed-term *411*
- Position in academia ($n = 1521$)
 - Post doc researcher *111*
 - Researcher *253*
 - Senior lecturer *748*
 - Professor *299*
 - Other *110*



Stockholm
University



Comparisons by gender

	Effort	Reward	Imbalance	Self-rated health
	3.92 (0.79)	3.05 (0.81)	1.43 (0.65)	2.19 (0.91)
<i>Gender</i>				
Women (991)	3.99 (0.80)	3.01 (0.80)	1.46 (0.65)	2.26 (0.94)
Men (728)	3.82 (0.77)	3.09 (0.82)	1.37 (0.66)	2.09 (0.86)

n= 1719

Significant findings:

Women reported higher **effort** than men ($\eta^2 = .012$)

Women reported lower **reward** than men ($\eta^2 = .002$)

Women reported higher **imbalance** than men ($\eta^2 = .005$)

Women reported significantly poorer **health*** than men, but both reported average health scores around 2, equivalent to “quite good” on the response scale. *high score = poor health ($\eta^2 = .009$)



Comparisons by contract type

	Effort	Reward	Imbalance	Self-rated health
	3.92 (0.79)	3.05 (0.81)	1.43 (0.65)	2.19 (0.91)
<i>Contract type</i>				
Permanent (1308)	3.96 (0.77)	3.15 (0.78)	1.38 (0.60)	2.16 (0.92)
Fixed-term (411)	3.76 (0.83)	2.70 (0.81)	1.58 (0.77)	2.26 (0.88)

n= 1719

Significant findings:

Those with a permanent contract had higher **effort** than those with fixed-term contracts ($\eta^2 = .012$)

Those with a permanent contract had higher **reward** than those with fixed-term contracts ($\eta^2 = .056$)

Those with fixed-term contracts reported higher **imbalance** scores than those with permanent contracts ($\eta^2 = .016$)

Comparisons by position

<i>Position</i>	Effort	Reward	Imbalance	Self-rated health
	3.92 (0.79)	3.05 (0.81)	1.43 (0.65)	2.19 (0.91)
Post doc researcher (n=111)	3.54 (0.83)	2.82 (0.75)	1.42 (0.79)	2.23 (0.93)
Researcher (n=253)	3.84 (0.78)	2.67 (0.80)	1.62 (0.75)	2.24 (0.96)
Senior lecturer (n=748)	3.98 (0.75)	3.20 (0.77)	1.36 (0.58)	2.20 (0.94)
Professor (n=299)	4.02 (0.79)	3.29 (0.73)	1.32 (0.54)	2.05 (0.83)
Other (n=110)	3.64 (0.89)	2.87 (0.77)	1.40 (0.63)	2.20 (0.97)

n= 1521

Comparisons by position continued...



Stockholm
University


NOWSTARS 

Significant findings:

Effort

- Researchers reported higher effort than post docs
- Senior lecturers reported higher effort than post docs and “other” positions
- Professors reported higher effort than post docs and “other” positions
- (**eta2 = .033**)

Reward

- Researchers reported lower reward than senior lecturers and professors
- Senior lecturers reported higher reward than post docs and “other” positions
- Professors reported higher reward than post docs and “other” positions
- (**eta2= .081**)

Imbalance

- Researchers had higher imbalance than senior lecturers, professors and “other” positions
- (**eta2= .026**)

Findings and general conclusions



Stockholm
University

NOWSTARS ★★★★★

Preliminary analyses of a pre-pandemic sample show differences by gender, contract type, and position in academia regarding perceptions of the psychosocial work environment and self-rated health.

- Women reported higher effort, lower reward, had higher imbalance, and poorer health than men.
- Those with permanent contracts reported higher effort, higher reward, and lower imbalance than their fixed-term counterparts.
- Post docs reported lower effort than researchers, senior lecturers and professors.
- Senior lecturers and professors reported higher effort than “other” positions.
- Senior lecturers and professors reported higher reward than post docs and “other” positions.
- Researchers reported similar levels of effort as senior lecturers and professors, but lower rewards than senior lecturers and professors. Researchers also had higher effort-reward imbalance than senior lecturers, professors, and “other” positions.

Researchers seemed to experience the greatest mismatch between effort and reward than those in other academic positions. This may reflect the general conditions of a researcher position in Sweden, as such positions are not covered by the Higher Education Ordinance, and thus continued employment is contingent upon the successful securing of research grants.

