

# Evolution of gender equality and job satisfaction in the Research Software Engineer community\*

Extended Abstract

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## CCS CONCEPTS

• **Social and professional topics** → **Employment issues; Gender;**

## KEYWORDS

Gender equality, survey

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## 1 INTRODUCTION

The increasing need for software engineering skills in research has led to the emergence of a new role in academia: the Research Software Engineer (RSE). This new role lacks of an institutionalised definition due to its novelty. However, it can be understood as a researcher who combines deep understanding of the research field and develop skills in software development. In order to identify and understand RSEs, as well as offering a definition of this new hybrid role, the Software Sustainability Institute has conducted several surveys on the RSE community. These surveys were an opportunity to investigate the gender disparities within the community.

## 2 CURRENT SITUATION

The first large survey scales was conducted in 2016, via email to all subscribers of the UK RSE Association's mailing list and received 592 responses. This first survey was limited to the United Kingdom, so we kept only UK participants

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(N=281). In the survey, a question about gender was included, along different scales to measure the job satisfaction. It appeared that the RSE community was predominantly male, with only 11% (n=30) of participants that answered female to the gender question (n=232). This could be explained by the existing unbalanced gender repartition in the most prominent disciplines from where the RSEs come from; *Physical sciences* (40% of them) and *Computer Sciences* (23% of them). However, in both of these disciplines the women representation is higher, 14% of women in Computer science, and 16% in Physics<sup>1</sup>.

We used different Likert scales to measure the concept of job satisfaction on three aspects: *the feedback received from supervisors, the performance checking and the overall satisfaction* [1].

On the aspect of career evolution, we measured the *perceived employability* (how workers value their own skills in regard of the market) and the *turnover intention* (the desire to leave the current position for another job).

A comparison was made using KruskalWallis one-way analysis of variance.

Regarding the job satisfaction there is no statistical difference for the *feedback received from supervisor* (F=0.056, p=0.911), neither for the *performance checking* (F=0.022, p=0.880) nor the *overall satisfaction* (F=0.747, p=0.3872).

Regarding the career perception, the turnover intention is not statistically different between men and women (F=0.248, p=0.617) but a difference can be found on the perceived employability (F=5.4887, p=0.019).

## 3 CONCLUSIONS AND FUTURE WORK

In terms of job satisfaction and turnover intention men and women are comparable, but women seem to have a lower perception about their own employability.

In April 2017, a second survey has been conducted on the same community with the same questions. With this new data we will be able to measure the evolution of the gender equality and representation.

## REFERENCES

- [1] Edmund R. Thompson and Florence T. T. Phua. 2012. A Brief Index of Affective Job Satisfaction. *Group & Organization Management* 37, 3 (2012), 275–307. <https://doi.org/10.1177/1059601111434201>

<sup>1</sup><https://www.hesa.ac.uk/data-and-analysis/publications/staff-2014-15/introduction> (accessed on the 02/07/16)