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Less is Not More - Female Engineers' Career Paths Five Years from Graduation

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It is a worldwide phenomenon that women's career expectations are lower than their male peers. In this study we focus on inequality of pay and career-development in the field of engineering. Numerous explanations for this have been proposed, for example:

- Women are more risk averse than men. [1]
- Women are less effective than men in competitive environments, even if they are able to perform similarly in noncompetitive environments. [2]
- Women's negotiation skills are worse than those of their male peers'. [3]
- Women's delegation skills are worse than those of their male peers'. [4]
- Impact of children (family leaves, less working hours).

In this research, we study the early career paths of engineering students who graduated from our university in 2005. The questionnaire included 38 questions, which consisted of multiple choice, likert scale and open ended questions. The questionnaire was divided into five sections: education and work history, situation at the time of graduation, first job after graduation, current situation and the signifi-

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cance of university education. As a result of our study, the analyzed data of our university showed, gender, as the dominant factor.

The uneven career development can be seen in the progress of monthly salary: Five years after graduation, male engineers' monthly gross salary (regular allowances, tax value of benefits in kind and overtime pays includes) was 4273 euros, while female engineers' salary (similarly counted) was 3784 euros. At that point 20 % of male engineers' had gained a managerial position, compared only 6 % women peers.

45 % of female engineers had been in a family leave during the first five years of their careers. On the other hand 28 % of male engineers had been on a parental leave. What we consider more important is the length of these leaves: 69 % of female engineers were more than a year absent from work, whereas 5 % of their male peers had more than one year parental leave.

In the light of our study, we state that women's careers end up being worse than their male peers as their career trajectories aim lower right from the start. Male engineers get better contracts, more responsibilities and more salary. The family leaves are the most controversial question considering female engineers' early career development. In the light of our research, we conclude that the point after getting a first permanent job and achieving economic stability seems to be a good time to start a family. However, according to our research this comes with a cost as female engineers' family leaves are substantially longer leaving them more in charge of children and home, which has detrimental impact on their overall career development. To tackle this problem, we identified certain educational methods to empower women and to support their career development, for example interactive teaching methods. ■

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