Women in Surveying Engineering Courses – a Greek Experience

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SUMMARY

During the last century, women have made an impressive progress in society, education and the workplace, increasing considerably their participation in historically male-dominated fields such as business, law, and health sciences. However, women's involvement in science and engineering has been less dramatic, and their progress in the respective workplace (especially senior posts and decision-making bodies) is even slower. In the EU, from the 17 million scientists and engineers, 60% were men and 40% women (statistics of 2016). It is interesting to note that in three EU Member States, the majority of scientists and engineers were women, Lithuania (58% female), Bulgaria (54%) and Latvia (52%) whilst less than one third of scientists and engineers were women in Luxembourg (25%), Finland (28%), Hungary (31%), Austria (32%) and Germany (33%).

In Greece, this situation is even more pronounced. Although Greek women are over-represented in undergraduate studies (more than the European mean), their proportions quickly decrease as one moves up the academic scale. The engineering profession is male dominant in Greece. The first woman engineer, an architect, graduated in late 1920s from the National Technical University of Athens. To date, the average percentage of qualified women engineers comprise less than 25% of the Greek total qualified engineers. Overall, about 20% of undergraduate engineering degrees are awarded to women, but only 13% of the engineering workforce is female. Numerous explanations have been offered for this discrepancy, including a lack of mentorship for woman in the field; a variety of factors that produce less confidence for female engineers and the demands for woman of maintaining a balance between work and family life.

This paper explores the "leaking pipeline" in women's participation rates in a specific engineering discipline, that of surveying engineering from Bachelor to postgraduate research programmes. By examining the statistics at number of parameters (enrollments, course options, marks, etc) from two

Women in Surveying Engineering Courses – a Greek Experience (10449) Maria Tsakiri, Sofia Soile, Charalambos Ioannidis and Vassilis Pagounis (Greece)

Greek universities (National Technical University of Athens and University of Western Attica) offering dedicated degrees in surveying engineering (5-year and 4-year course degrees respectively), the paper focus on three points of "leakage" for women's participation between Bachelor degree programmes, postgraduate programmes, taking up postdoctoral positions, and the links between them. The paper suggests also ways in which university policy may impact on women's participation in postgraduate research programmes through implementation of university-wide and departmental policies encompassing the strategies identified in this study.
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