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## Understanding the gender gap in STEM careers. A longitudinal data analysis

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In recent years it is increasingly evident that, among others, health studies and policies have an important gender gap. Understand why and remedy it becomes, then, an important challenge that starts by looking at who studies what.

Recent studies show that the number of female students enrolled in STEM related disciplines (such as Data Sciences) have been decreasing in the last twenty years, while the number of women resigning from technological job positions remains unacceptably high. In this paper, we try to show the effects of a working program developed by the School of Engineering at the University of Valencia (ETSE-UV), Spain, which aims at decreasing the gender diversity gap as well as increasing and retaining the number of female students enrolled in STEM fields. The data analysis so far, establishes that, in part, this program has helped to achieve higher female graduation rates, especially among Bachelor students, as well as increasing the number of top-decision positions held by faculty women.

The goal of this work is to use models for longitudinal data to understand if the temporal evolution of the gender gap shows differences related to the specific area of STEM as well as to understand the most effective key points in the STEM careers promotion policies.

**Keywords:** Longitudinal data, woman in STEM.