

## Gendered gap & perception of STEM in India

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Traditionally, STEM has been considered as a male domain as in other parts of the globe (ref Figure-1). However, scenario has changed over the period which may be divided in three phases as discussed below:

Phase I between 1950 - 1990- Pre-Globalization	Phase II between 1991 to 2019: Post-Globalization	Phase III between 2019 to 2020 Impact of COVID-19
<p><u>Demand side</u></p> <ol style="list-style-type: none"> <li>1. Emphasis on education during planned period in India,</li> <li>2. Employment opportunity was generally in government sector/ public sector with formal employment relation [1]</li> </ol> <p><u>Supply side</u></p> <ol style="list-style-type: none"> <li>1. Traditional Mindset restricted entry of women in STEM area.</li> <li>2. Due to general emphasis, even STEM field experienced gradual expansion.</li> </ol>	<p><u>Demand side-</u></p> <ol style="list-style-type: none"> <li>1. Globalization &amp; application of IT in business operations.</li> <li>2. Enhance technological intensity of even non-technical processes/ sectors.</li> <li>3. Return on science &amp; engineering education is higher</li> </ol> <p><u>Supply side</u></p> <ol style="list-style-type: none"> <li>1. Strict implementation of family planning norms of two-three children in 1970s led to attention on daughter's education in 1990s</li> <li>2. Exponential expansion of engineering education during 1990s onwards.</li> </ol>	<ol style="list-style-type: none"> <li>1. No effect is visible on enrollment (from all India data).</li> <li>2 Placement of institutions in metro cities (data from engineering institution of Delhi) has shown an increasing trend even during the phase of COVID-19. During this phase they shifted to online mode. However, all India data shows a decline of 19 percent [2].</li> <li>3. Working women engineers have found stress in managing work-life balance.</li> </ol>

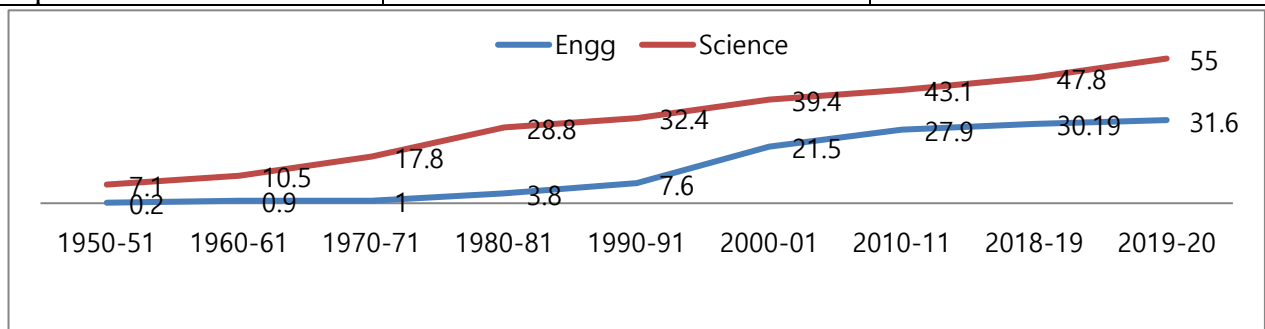


Figure- 1- Percentage Share of Women Enrollment at Graduate Level; Source: [3]

Salient feature of women education & employment in STEM

1. Gender Parity Index for Science in higher education level is more than one.
2. Beyond 2010, women enrolment in engineering education is almost stagnated.
3. Women join the workforce but difficult to reach up to the top.

References:

[1] Singh Seema, "Indian Continuing Engineering Education System in context of Globalisation", 2020, Rathore Academic Research Publications, ISBN 978-81-948753-2-1pp. 04.

[2] AICTE, DashBoard, <https://facilities.aicte-india.org/dashboard/pages/dashboardaicte.php> on 04.8.2021

[3] UGC, Annual Reports for various years, University Grants Commission, India; New Delhi.