

Technical ability still a matter of concern
80% employers satisfied with quality of engg. graduates hired:
FICCI-WB survey

NEW DELHI, 4 November, 2015. Over the past decade, there has been a dramatic increase in the number of undergraduate engineers being trained in India every year. While total enrollment in higher education increased from 13.85 million to 21.78 million between 2006-07 and 2011-12, the number of students enrolled in engineering courses increased more than three-fold (from 1.8 million to 5.5 million), a rate of growth far outstripping other courses (MHRD, 2013). The increase in enrollment has been possible because existing colleges have been expanding their programs and also because new colleges have been opening. While there were only 2792 institutions training undergraduate engineers in 2009-10, there are currently 3384 institutions that train undergraduate engineers. Of these, 91% are privately owned.

The Federation of Indian Chambers of Commerce and Industry (FICCI) and the World Bank in 2009, surveyed 157 firms on which skills they considered important when recruiting new engineering graduates and how satisfied they were with those skills. They found widespread dissatisfaction with engineering graduates. Only 36% reported being very or extremely satisfied with the quality of new hires, while the remaining were either somewhat or not satisfied.

A modified version of the survey was administered in 2014 to approximately 900 firms, along with a series of interviews and focus group discussions with top employers and institutes. The survey found that 80% of employers are now ‘very satisfied’ or better with the quality of engineering graduates hired over the past year.

The survey finds three possible explanations for the improvement in satisfaction levels. First, firms are using increasingly more systematic processes for recruitment, increasing their chances of recruiting more suitable candidates. Further, firms are investing heavily in training new recruits, often using innovative training processes that can last up to one year. Second, colleges have been investing in improving the work-readiness of their students through closer collaboration with industry and a greater focus on soft-skills training, such as oral communication, teamwork and time management.

Finally, the market slump since 2009 and the expansion of private engineering colleges has meant an oversupply of engineering graduates, allowing firms to be more selective during the recruitment process due to a greater choice of candidates. The quantitative data do not allow us to separate the relative importance of the three factors, but our qualitative data indicate that the three likely reinforced each other during the past five years.

However, regardless of the improvement in *soft skills*, the survey data unambiguously points to a persistent skill deficit in the *technical* ability of engineering graduates, who are unable to successfully apply their technical knowledge to real world engineering problems.

The following firms participated in interviews and focus group discussions:

Interviews: Maruti Suzuki; Larsen & Toubro; Indian Oil Corporation and BHEL.

Focus Group Discussions

Delhi: GAIL; Lanco Infratech; NTPC; Moser Baer and Ericsson.

Mumbai: Larsen & Toubro Infotech; Mahanagar Gas Seva; Lloyd's Register and Essar Group.
Coimbatore: ZF; Cameron Manufacturing; Robert Bosch; Larsen & Toubro; Alstom; GE; Roots; CRI Pumps; SIMA; Shakti Sugars; Senthil Group; ITC Ltd.; and KGISL.
Kolkata: Ambuja Realty; VTL ELECTRONICS LTD; Genpact India; Great Eastern Energy Corporation Limited; TCG Software Services Private Limited; MCCPTA; Damodar Valley Corporation; and IBM.

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