Science career: through the eyes of Indian research scholars

The National Institute of Science, Technology and Developmental Studies (NISTADS) has undertaken a study on 'How attractive are science and technology (S&T) jobs in India'. The main aims of this study are to develop indicators for 'attracting' and 'retaining' new entrants to science; and to make an assessment of 'science and science career' in the opinions of (i) S&T personnel from various research and development organizations[1], (ii) faculty members of different science departments in selected universities, (iii) research scholars (JRFs/SRFs and Ph D students) from different research institutions/universities, and (iv) the undergraduate and postgraduate students of selected colleges.

We report here some of the important results based on the responses of 246 research scholars (from different science departments of selected universities). The sample has 53 per cent scholars aged 28 years or more and 22 per cent aged 25 years or less. Further, about 30 per cent of the respondents are partially dependent (financially) on their parents.

Figure 1 presents the perceptions of the respondents on three vital issues of a science career. These are: (i) extent of satisfaction in choosing a science career, (ii) opinions about their achieving the goals they set for themselves in life, and (iii) extent of opportunities that exist in the current environment for them to become the regular S&T manpower of India.

As we can see from Figure 1, the respondents have expressed satisfaction with their choice of opting for a science career (and doing Ph Ds). This opinion has been expressed despite the limited opportunities for getting well paying jobs. Perhaps, these opinions reflect the 'inner' satisfaction of these scholars in doing something meaningful for themselves, for the organization and/or for science as a whole.

In fact, the younger group of scholars (age 25 years or less) are enthusiastic about those jobs, which will involve them in projects that (may) lead to the country's development and provide them with opportunities to acquire knowledge and skills. Somewhat senior scholars (aged 28 years or more) have a great desire for learning and for practical usage of knowledge and skills. Interestingly, the concepts ranking low in their list of priorities are annual pay package, opportunities to go abroad, job status and status of the organization.

Overall, the research scholars do perceive that the new generation of Indian students have 'average-level' interest in science subjects and in pursuing a science-related career. But more than 70 per cent strongly recommend/suggest that school/college students take up science subjects during their higher education. This suggestion to the students is primarily based on their own experience, knowledge gained and the way research activities are being carried out in research institutions/universities.

We do come across articles, published from time to time highlighting the poor state of research scholars and the harassment they face at the hands of supervisors. Even the respondents of our study have admitted facing several difficulties and problems while carrying out research.

However, the preliminary findings[2] show that these scholars are still enthusiastic about their choice of choosing science as a career option and would search for those jobs that would satisfy their 'intrinsic' motives as against their 'extrinsic' motives of life. We hope that further analysis will provide some ways to check the decline in students opting for career and research in science.

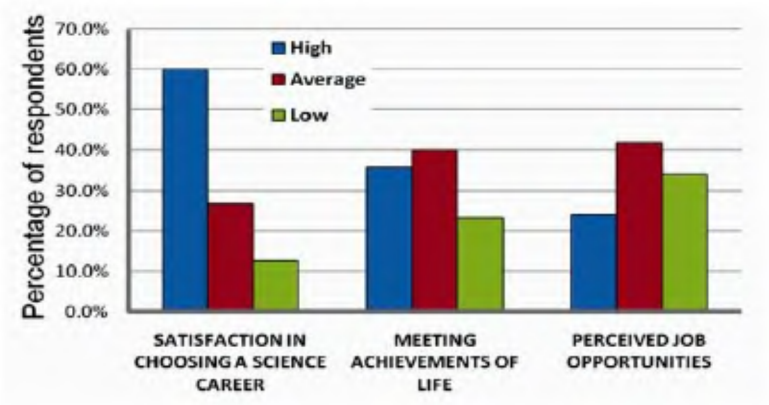

Figure 1. Opinions of research scholars on three vital issues in choosing science career (N = 246).

1. Dhawan, S. K., *Curr. Sci.*, 2009, **96**, 7.
2. Limitations: The findings are preliminary and are based on a modest sample size of 246 research scholars. The data has been collected via a questionnaire. As such, the results are a definite indicator only for this particular group of research scholars. However, it does suggest the need for a broader study with appropriate sampling, sufficiently large sample of research scholars and rigorous use of statistical analysis to understand whether the results can be generalized.

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