

Why Become a Scientist?

I am often asked by students and parents alike on why pursue a career in research. It is supposed to be poorly paying and requiring too much commitment, making it a profession of choice only for the non-worldly people. Allow me to express the reasons as to why a career in research is a good and sensible choice for the intelligent.

1. The real difference between industry and research salaries is a factor of 2 to 2.5 times higher in favour of industry after deductions from taxes etc. are taken into account. Normally, industries quote their salaries with perks and extra benefits (loans, transport allowances, etc.) which are compared with take-home salaries of scientists ignoring their perks which makes the contrast appear large. In reality scientists have the following perks which are ignored:
 - Regular visits and work in foreign laboratories.
 - Participation in international collaborations/conferences.
 - Reasonably priced high quality accommodations and living environment.
 - Plenty of funds for pursuit of research activities.
 - All benefits of health insurance.
 - Pension or handsome retirement benefits.
2. Only in research is the prime focus of activity not generating wealth for your company but to pursue your interests in any problem that you want to investigate.
3. The job description of research requires excellence on the part of the scientist but is backed up with high quality infrastructure to pursue your curiosity. Typically the government spends more than 20 times a scientist's salary on providing infrastructure to him/her.
4. The sole criterion for recognition and funding is peer acceptance and not commercial criterion.
5. The job itself offers a life long challenge on the nature of work. There is no routine and no repetitiveness in the work. In fact if you are doing the same kind of work for five years or more, there is something not right with your programme.
6. There are no facilities in industry for personal pursuit of academic curiosity and unless the industry is making several times your salary's worth you are not encouraged.
7. Job situations in industry are always very tense and jobs uncertain and the implicit uncertainty makes an unhealthy life.

8. Management activity is the ultimate settling position in industry.
9. Innovation and creativity of gigantic scale are discouraged rather than encouraged in industry.
10. Only in research are you limited only by your imagination; in industry you are limited by the 'risk factor' calculations before any research is tolerated.
11. There is no such thing as sabbatical to work abroad in foreign labs.
12. There is no cooperation across industries, only competition in industry.
13. In industry, there is little prestige in terms of creating knowledge of international scholarship.
14. Even under the most benevolent bosses, industrial engineers pursuing amateur research in private time have to restrict their activities and be highly disciplined in order to pursue research as an outlet for his creativity.
15. In most cases, I have seen people get fed up and either leave the job if they can afford or simply get stuck in petty pleasures and petty politics (drinking expensive alcohol or taking expensive holidays is the only preoccupation).
16. A researcher can switch to industry but it is very difficult to go to research after working in industry which severely restricts knowledge and perspective.
17. Research is the basis of all development in civilisation and the Government of India has invested huge resources in the infrastructure for research which is available to all talented and intellectually curious youngsters willing to put in the hard work.

A career in industry therefore requires moderate intellect and incremental, risk minimised development with huge constraints on freedoms. The profession of research is always highly creative requiring continuous application of intelligence and training and limited only by imagination. Its life time innovativeness and application of mind and academic skills for the entire life span makes it the most fascinating life style. It therefore provides reasonable living with unparalleled intellectual challenge and job satisfaction which gives a far more satisfying life than any other pursuit.

All in all therefore, while a research career keeps growing with new challenges with time, a career in industry reaches a plateau of boredom and petty politics very quickly and higher salaries hardly compensate for the boredom of work.

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