

# State of Science UK

*Political rhetoric about the health of the UK science base does not match the reality, according to Prospect's survey of almost 1,000 scientists and technologists*

**M**ore than four in 10 working scientists are either unsure they will be able to stay in science or certain they will leave.

That is the key finding of a State of Science survey, undertaken at the end of 2006 by the scientists' union Prospect, which reveals a huge level of anxiety about their personal future among both public and private sector scientists. The figure is all the more disturbing when more than three quarters of all respondents – 77 per cent – say they would prefer to stay in science. A total of 952 members from both public and private sectors responded to the union's survey, using a questionnaire on the Prospect website or printed in its members' magazine. Overall, just 58 per cent of respondents say they expect to stay in science, with a slightly higher level of confidence among the private sector (62 per cent) than the public sector (57 per cent). The reason why 42 per cent are fearful for the future has nothing to do with the nature of the work. An encouraging 70 per cent find their work interesting, and 78 per cent consider they are working at an appropriate skill level.

But a significant group expect to be forced out through redundancy or early retirement, while a desire for better pay and conditions is the most common reason cited for wanting to leave. Others are low morale; lack of confidence in the long-term prospects for their organisation; better career progression; more control over their own work; and more family-friendly employment.

Sue Ferns, head of Prospect research who analysed the survey

results, said: "In a climate in which scientific skills are in increasingly short supply, this seepage of talent must be a major concern."

## **Why are so many planning to drop out of science?**

One major cause of career dissatisfaction leaps out from the figures: a dramatic decline in promotion opportunities, reported by more than half of all respondents compared to just 7 per cent who say they have increased. This decline has taken place in the last five years, pointing to accelerating pressures as round after round of cutbacks, relocations, reviews and contracting out take their toll of job opportunities.

Younger respondents were more upbeat in their assessment as were respondents from the private sector: 12 per cent of those under 35 and 11 per cent from the private sector reported an increase in promotion opportunities. But overall, 51 per cent of members say promotions have declined – easily outweighing any other issue of concern.

Next on the list of personal gripes is pay. Thirty-five per cent of respondents say they are dissatisfied with their rate of pay, and that dissatisfaction rises with age. But professional issues are almost as important:

- one in three scientists does not believe they have opportunities to influence the nature of their work
- lack of training is a major demotivator, rated as insufficient by 28 per cent of respondents
- more than one in four say they do not have the opportunity to develop their own ideas
- almost as many are dissatisfied

with their opportunities to publish research

- one in four cannot make enough contact with others in the same field of research.

## **Chasing the money, instead of doing science**

Whatever the Government and industry may say about putting more money into research and development, that's not the experience of Prospect members. More than two in three of all respondents – and 63 per cent of those in the private sector – report that their team's work has been affected by funding cuts over the past five years. Fewer than one in five have not been affected by cuts, and the number voicing concern over this issue rises with age, probably reflecting additional managerial responsibilities acquired with seniority.

The consequence of this financial squeeze is that large numbers of scientists have to chase funding for science rather than doing science. A quarter of all scientists now spend one day of each working week trying to secure funding, and one in ten respondents spend a staggering 20-50 per cent of their time seeking funds. Again, these pressures increase with age.

These new patterns of funding come at a price. Seven in ten say that the limited duration of project funding interferes with the quality of science undertaken. This trend is consistent across both public and private sectors. Almost half of those surveyed report that the proportion of core funding for their work has decreased over the past five years, making it less secure. Over the same period, nearly two-thirds of

respondents report an increase in the volume of work, in part because “budget constraints have resulted in fewer staff to do the same amount of work as before.” This problem is widespread across the private sector (52 per cent) as well as the public sector, though a higher proportion in industry have seen their work volume fall (17 per cent, compared to 8 per cent in the public sector).

**Has your team’s work been affected by cuts in funding over the last five years? (%)**

Yes	68
No	17
Don't know	13

**Does the limited duration of project funding interfere with the quality of science? (%)**

Yes	68
No	27

**1 in 4 is asked to doctor their findings**

Exactly one in every four respondents to the Prospect survey has been asked to tailor their research findings or advice – and these pressures are greatest in the private sector.

The same proportion reports that it is difficult to maintain independence from their sponsor, and this has been a consistent finding of Prospect science surveys for the past 15 years. Usually scientists are asked to tailor their findings to suit the customer’s preferred outcome, but often they have to do so to obtain further contracts or to discourage publication. Equally disturbing is that half of all respondents say that contracting out or privatisation have

impacted negatively on their ability to provide independent advice in the public interest, including 8 per cent who simply don’t do it any more.

As one respondent noted: “The continual push towards privatising public sector science is undermining the independence it was set up to achieve. If it is not stopped soon there will not be enough left to save.” In the words of another: “Government is making a business out of something that is not naturally so.”

**Have you ever been asked to tailor your research conclusions or resulting advice to: (%)**

	All	Public Sector	Private Sector
Suit the customer’s preferred outcome	17	15	20
Obtain further contracts	8	6	14
Discourage publication	3	3	3
Never been asked	75		

**The future in jeopardy**

Despite all the frustrations, scientists remain dedicated to the work they do and maintain a strong commitment to the public interest.

Two thirds of all respondents would advise their own children to pursue a career in science and technology, though disenchantment increases with age and is higher in the public than the private sector. Respondents give a sense of being caught between their own enjoyment of science and the reality of working in it. One said: “I would advise my children to become well educated about science, but it is honestly difficult to recommend it as a career choice. My experience is that careers that involve working in a laboratory or making calculations are seen as less valuable than

management roles. This is reflected in pay and status within the organisation and the absence of any scientists from the senior management team.”

The figures show that it would be wrong to paint a uniformly grim picture of UK science today. But its world-class reputation will be lost unless it is valued and nurtured by decision-makers, said Sue Ferns.

“Prospect is not opposed to change and this is not an anti-science Government – far from it. But the

voices of those who are best qualified to comment should give us all cause for concern. Prospect is bound to conclude that there is a strategic failure across Government to take on the key responsibility of care for the national science base.

“If the Prime Minister is serious about encouraging more people to take up science, he must also answer why they should do so when jobs are limited, poorly paid and highly competitive.

“Our survey demonstrates that while newer entrants still have a reasonably positive outlook, the reality is that many people can only stay in science if they make personal sacrifices and work very long hours. However much the PM might wish it, this is not the way to build the path to the future.”

*For more information about the survey or Prospect please contact the communications department on 020 7902 6607 or visit the website at [www.prospect.org.uk](http://www.prospect.org.uk)*

*Prospect is a trade union representing 102,000 scientific, technical, managerial and specialist staff in public service, related bodies and major companies.*

*It is the main union for scientists in the public sector, with members ranging from chief scientific adviser to laboratory technician, spanning government departments, agencies and non-departmental public bodies.*