

Industry scientists more positive than those in academia

Nature's salary survey shows a marked change in researchers' outlooks since 2016. Academia must raise its game.

How does being a researcher in industry compare with being an academic? That's a question explored in a series of articles pegged to *Nature's* latest survey of salaries and job satisfaction, which concludes this week. The results make for sobering reading for academics, revealing a shift towards industry (see *Nature* 599, 519–521; 2021).

Scientists who work in industry are more satisfied and better paid than are colleagues in academia, according to the self-selected group of respondents, which comprised more than 3,200 working scientists, mostly from high-income countries. Two-thirds of respondents (65%) are in academia; 15% work in industry. Industry employs, on average, half of the researchers in these countries.

Another key finding, covered in this week's piece on workplace diversity (see page 177), is that 30% of respondents in academia reported workplace discrimination, harassment or bullying, compared with 15% of those in industry. Industry respondents (64%) are also much more likely than those in academia (42%) to report feeling positively about their careers. That's a marked shift from the 2016 survey, in which satisfaction levels across the two sectors were neck and neck (63% and 65%, respectively). One research project manager working in the private sector in the United States summed up the latest findings with the words: "I am now an evangelist for all of my friends still in academia to get out and join biotech or any other professional industry."

The latest findings should sound alarm bells for academic employers at a time when morale in the sector is worsening in many countries. As *Nature* went to press, academics at 58 UK universities were set to stage a 3-day strike from 1 December as part of an ongoing dispute about pay, working conditions and planned cuts to their pensions.

A separate survey of more than 1,000 UK faculty and staff members carried out between June and August last year revealed a sense that university leaders are using the pandemic as an excuse to push through cost-cutting measures (R. Watermeyer *et al. Br. J. Sociol. Educ.* 42, 651–666; 2021). Seven out of ten respondents say that this has created a culture of fear, which has, in turn, led to university leadership becoming more autocratic. Many respondents were also concerned that publicly funded academic institutions are increasingly being run as businesses.

But if universities truly were like businesses, the survey findings suggest, staff would probably be happier – and

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would not be looking to leave in the numbers they seem to be.

Nature conducted a small number of interviews with research leaders in industry. One research director at a global bioscience company said that about 60% of job applications come from people in academia. A small proportion of those hired do later return to academia. The director says the company is keen to keep a path for return open, for example by permitting research staff to publish in scientific journals, which is not always an option for researchers in industry.

Labour-market economics offers one explanation for the better pay and greater satisfaction reported by respondents in industry. New companies are popping up every week, and they can struggle to fill vacancies, so will offer higher salaries and additional benefits to attract good candidates. In a number of high-income countries, this is essentially the reverse of the situation in academia, in which postdoctoral researchers greatly outnumber tenure-track positions (S. C. McConnell *et al. eLife* 7, e40189; 2018). In these countries, industry contributes around two-thirds of all research and development (R&D) funding. All in all, public institutions (including universities) have less money to spend and more researchers chasing every job.

That said, industry is not at all homogeneous. It ranges from multinational technology and life-sciences companies employing tens of thousands of people to one-person start-ups spun off from universities. And corporate life comes with its own challenges. One head of R&D with experience of working at large pharmaceutical companies said corporate politics and the slow pace of executive decision-making can be frustrating for a researcher who is used to a more hands-on scientific role in an academic lab. By contrast, junior colleagues at smaller companies can enjoy more varied roles in agile working environments before being head-hunted by competitors offering higher salaries.

Clearly, academic salaries are unlikely to be able to compete with those of industry – at least while there are so many more postdocs than positions available. But these two employment destinations need to learn from each other. Researchers looking to switch from academia to industry often have to contend with a supervisor's disapproval of the move. Such attitudes can discourage researchers from returning to academia, where the perspectives gained in industry could help to re-energize and diversify teams.

Of course, many do find a career in academia hugely rewarding. One academic bioinformatician in the United States who responded to the survey reported earning around 50% of what she was offered for industry positions. She said: "It would be nice if academia could be more competitive with industry, but I love what I do and where I live so I can't really complain."

But as competition for scientific talent increases, academic leaders must not assume that that sentiment will prevail. If they want current and future generations of academics to thrive, they need to learn how other sectors succeed in recruiting, retaining and rewarding staff, and consider how to ensure that they are still attractive to the top talent.