

engage with its research programmes.

China wants to share its experiences of how to escape poverty, having made great strides towards that goal in a generation. But to tackle global economic, environmental and political issues, policymaking and governance need to be research-based and multilateral. China and its Western partners must take a more sophisticated approach to how they deal with one another amid rising geopolitical tensions. Stopping person-to-person contact and ending longstanding institutional research relationships is not the way to address climate change, prevent wars, or avoid or tackle another global financial crisis.

Postdocs are organizing – and that is a good thing

The issues of low pay, job insecurity and a lack of career progression are well known. Now, postdocs are demanding change.

“People have been talking about this for nearly my entire life,” says a respondent to *Nature’s* latest survey of postdoctoral researchers. These words highlight how, compared with people who have similar qualifications but work in other sectors, low salaries and insecure working conditions are part and parcel of the postdoc experience.

But *Nature’s* second global survey of the postdoctoral work force, explored in a series of Careers Features over the past three weeks, reveals signs that repeatedly highlighting problems is leading to action.

Of the 3,838 self-selecting postdocs in 93 countries surveyed in June and July, 41% feel positive about their future careers, compared with an independent self-selected group we asked three years ago – when only 28% of the 7,670 respondents felt positive (see *Nature* 622, 419–422; 2023). That said, survey respondents in their thirties tend to be more negative about their experiences, including their salaries, and be more concerned about risks to academic freedom, than are those in their twenties (see page 881).

There are overlapping reasons for this change. In the past few years, funders and employers around the world have started to pay attention to the plight of postdocs. Rapidly rising living costs have left postdocs increasingly strapped for cash. In Canada and the United States, early-career researchers are getting organized and are taking industrial action to demand higher salaries (see *Nature* 621, 431–433; 2023).

Institutions have not sat on their hands. Since 2019, large employers – including Germany’s Max Planck institutes,

the Wellcome Sanger Institute near Cambridge, UK, and Stanford University in California – have been listening to their postdocs through surveys to better understand their needs and have been trying to find ways to improve pay and working conditions. In December, a US National Institutes of Health working group will publish recommendations that will affect how the agency funds and manages postdocs.

In the wake of MeToo, Black Lives Matter and other global antidiscrimination movements, many universities have introduced policies to boost diversity and promote inclusion. As in many other sectors, the COVID-19 pandemic has thrown a spotlight on the need to support the well-being of academic employees. More than half of postdocs told *Nature’s* survey that they have considered leaving their scientific field because of mental-health concerns. Some organizations, including the Francis Crick Institute in London, have introduced mental-health first-aid schemes to support staff members.

Still, much more needs to be done to understand and meet postdocs’ needs. Principal investigators have been reporting that they are struggling to fill postdoc vacancies for a while, and in *Nature’s* survey, 44% of the respondents were aware of struggles to recruit in their workplaces. When asked to select the likely reasons for this, 81% agreed with the option that ‘a lack of career stability is leading postdocs down other career paths’; 78% agreed that ‘graduate students are choosing more lucrative careers that bypass the postdoc route’. Only 1% thought that a lack of skilled postgraduate students was to blame.

Part of the reason for the historical disregard of postdocs is that academic employment has been a buyer’s market: there are many more postdocs who want to stay in academia than available permanent positions. Nearly two-thirds of the survey respondents intended to continue their career in academia, even though the path from PhD qualification to professor is neither straightforward nor something that can be planned. How many will succeed will vary depending on disciplines and countries (some sources suggest fewer than 5% of PhD graduates end up in permanent academic positions, although others say it could be as high as 30%). Regardless, this means that although many of the postdocs surveyed by *Nature* will probably not fulfil their academic ambitions, they continue to harbour hopes.

But this mismatch between ambition and reality should not prevent universities treating postdocs better. Nor should the fact that most researchers do not stay with the same institution for decades, as might once have been the case. Postdocs should still be valued as employees, and employers held accountable for their treatment.

The fact that postdocs in some parts of the world are taking strike action is an indication of just how bad things have become. Some institutions are responding, partly as a result. Others must follow, and realize that improving the postdoc experience is the right thing to do.

This essential workforce continues to be undervalued and overworked. Paying postdocs better and ensuring that their needs for stability and career support are met must be priorities wherever researchers are employed.

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