Mass layoff looms for Japanese researchers

Thousands could see their jobs axed in the wake of labor law adopted a decade ago

By Dennis Normile

housands of researchers at Japanese institutes and universities may see their jobs disappear by next spring, an unintended result of labor legislation adopted a decade ago that gave researchers who have worked under fixed-term contracts for more than 10 years the right to permanent employment. Japan's science system has many such temporary workers-but rather than fully hire them, institutions are terminating their jobs.

Scientists are trying to head off the layoffs; the union for RIKEN, Japan's net-

work of nationally supported laboratories, filed a protest with a Tokyo labor board last month and may take legal action. Regardless of the outcome, the dispute could create more upheaval in a research system whose global impact is already waning (Science, 27 May, p. 903.) "We are on the verge of seeing a possible mass dismissal of researchers this year," Tomoko Tamura, a member of the legislature's upper house, said during a May parliamentary question time on the issue. Tamura's analysis of government data suggests up to 4500 researchers are at risk, which "could have a serious longterm impact on Japan's research and development," she said.

Japan's R&D funding grew rapidly in the 1990s and 2000s, but many newly recruited researchers were hired under fixed-term contracts, which offer lower pay, fewer benefits, and less job security than permanent jobs. The scheme gave research institutions more flexibility-but in practice, most fixed-term contracts were renewed indefinitely.

RIKEN is a prime example. Thirty years ago, it had about 400 researchers, most of them permanent employees working on basic physics and chemistry at the main campus near Tokyo. In the mid-1990s, Japan set out to roughly double government spending on research within 5 years, but the National Personnel Authority resisted increasing the number of employees on the national government payroll. Instead, RIKEN used project funds to hire many fixed-term employees. Today RIKEN has programs in brain science, quantum computing, and preventive medicine scattered among 10 branches and campuses, and it runs a powerful synchrotron and a petascale supercomputer. But 77% of its 2893 current researchers are fixed-term workers.

Legislation adopted in 2013 and amended in 2014 gave most contract employees the right to request permanent employment after working for the same employer for 5 years; for researchers, the term was set to 10 years. Many employers have responded by making sure contract workers never accumulate that duration of service.



SPring 8, one of the world's most powerful synchrotrons, is among the cutting-edge facilities RIKEN brought online during 3 decades of growth.

RIKEN took that step in 2016, specifying that the count of years served starts in 2013. That means contract researchers who have already worked for RIKEN for more than 10 years may face termination next year. In an email to Science, RIKEN says 203 fixedterm researchers will reach the end of their final contracts before the end of March 2023. The institute is currently screening them and expects to make an unspecified number permanent employees, but many will have to leave. Among the vulnerable scientists are 42 team leaders whose groups will be disbanded if they go, which puts another 177 positions at risk. RIKEN says it hopes those who are forced out "will be able to continue their research activities at universities, research institutes, and private companies in Japan and overseas."

Applying an employment policy adopted

in 2016 retroactively to those who have already worked under contract for 10 or more years, is "illegal," says Yasuyuki Kanai, the executive committee chairman of RIKEN's labor union. He says the researchers have a right to continued employment. Unhappy with the way RIKEN negotiated, the union on 20 June formally asked a governmental labor relations board to order the agency to bargain in good faith. With union support, "researchers are now preparing to take the matter to court," Kanai says. The union notes that fresh cohorts of several dozen fixed-term researchers annually will reach the term limit in the years ahead.

Other institutions face similar problems, although few have as many temporary contracts as RIKEN. Some are trying to find ways to retain their workers. The National Institute of Advanced Industrial Science and Technology has converted to permanent status all 245 fixed-term contractors who applied for it, according to press reports. Tohoku University is reportedly screening 275 fixed-term researchers for possible permanent employment. At the University of Tokyo, which has 588 fixed-term employees approaching 10 years of service, some might be moved to new projects, a spokesperson says, without providing details.

The broader problem is a scarcity of opportunities for researchers to change jobs in Japan, says Eisukė Enoki, who heads an Osaka-based organization that studies science policy. "The originally envisioned ideal was for academics to become assistant professors after one or two postdocs and to gain a permanent position if tenure is approved," he says. But a tenure system has never taken hold, and there are few permanent positions, even for team leaders with good track records, Enoki says.

A senior scientist at RIKEN who asked not to be identified agrees. His final contract is ending and it's "very difficult to find a new position," he says: "If I get a job in China, Korea, or Taiwan, I will move." The crisis underscores that for young people, in Japan "being a researcher is not an attractive profession," he adds.

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