Where do postdocs go?

Postdoc appointments purportedly prepare new Ph.D. recipients to become tenure-track faculty members. But, according to a study by the graduate division of the University of California, San Francisco (UCSF), released on 23 September, only about a third of the postdocs who left the institution between 2000 and 2013 actually accomplished that goal. Based on information supplied to the National Institutes of Health (NIH) regarding 28 T32 training programs covering 303 faculty-run labs, the study included more than 1700 former postdocs, or about 40% of those departing UCSF during the covered years.

T32 programs—Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants—allow institutions to award their own fellowships "to prepare qualified individuals for careers that have a significant impact on the health-related research needs of the Nation," according to a notice issued in March 2011, late in the study period.

Institutions running T32 programs are expected to detail the career outcomes of postdocs and graduate students, which makes the program convenient for studying career outcomes. Yet, "[t]o our knowledge, nobody else has done a study like this," said Elizabeth Watkins, graduate dean and vice chancellor of student academic affairs, in a statement from the UCSF postdoc office.

Some 85% of the former UCSF postdocs still work in research, with 62% employed in academe. Half of those in academe are tenure-track faculty members, but what the other half are doing—for example, whether they are still postdocs at other institutions—is not clear. Industrial research occupies 19% of the former postdocs, and government research employs 4% of them. Outside of research per se, 9% of the ex-postdocs are still doing other kinds of science-related work, "such as biotech business development or clinical work. This means that 94% of postdocs are still engaged with the research enterprise," the statement adds.

That last sentence appears intended to strike a positive note. But if becoming a tenure-track lab chief is indeed the purpose of postdoctoral training—that's the T32 program's traditional mission—the odds of success are low indeed. UCSF "is among the top universities in the world," placing fifth in in life sciences in Shanghai Jiao Tong University's 2014 Academic Ranking of World Universities, according to the UCSF website. If fewer than 1 in 3 of the postdocs at so august an institution attains the purported goal, what are the chances of those at universities lower on the prestige ladder? *Science* Careers' PI Predictor widget may help you calculate the bad news.

NIH, by the way, has recently recognized that "the career outcomes of NRSA-supported training programs include both research-intensive careers in academia and industry and research-related careers in various sectors, e.g. academic institutions, government agencies, for-profit businesses, and private foundations" and is encouraging universities with T32 programs to provide "structured, career development advising and learning opportunities" to prepare trainees for those opportunities,

according to a notice issued in September 2013, near the end of the study period. It has not, however, taken any steps to reduce either the supply of new Ph.D.s or their continued flow into postdoc appointments, which many nonacademic employers consider irrelevant.