

PROSPECTS

Side target

Augmenting your full-time job with additional work can bring many rewards, says **Peter Fiske**.

Fifty years ago, scientists and engineers routinely spent their entire career with a single employer. They had just one job; they left at the end of the day and returned in the morning. Today, the one-employer-for-life model is the rare exception: career counsellors now tell scientists to expect to have between six and eight separate and distinct careers before retiring.

This shift in employment has placed a much greater responsibility on researchers to manage their careers proactively. Scientists cannot rely on employers (or PhD advisers, no matter how benevolent they may be) to create their future opportunities. Much more of the control

for professional advancement now lies in scientists' own hands.

Most young scientists assume that the sole mechanism for professional advancement is the technical work they produce. Although this output is certainly important, focusing all your energy on one job may not be the best approach. One potentially lucrative and stimulating option is investing a small amount of time in another professional activity — distinct from, and at the periphery of, your full-time job — to cultivate new opportunities and move your career in the desired direction.

Choosing a second gig

Typically, you may need to spend a few extra hours of work a week on this 'second gig', although it rarely rises to the status of a second job. Technical consulting (providing an outside client with advice on a problem related to your field) is one of the most common second gigs for scientists and engineers. It can be enormously valuable, because it exposes you to a diverse set of applied problems confronting industry or government, which may be complementary to the purely scientific problems you face in your research.

Not only can you learn about new applications of your science through technical consulting, but you can also expand your professional network and gain insight into the economic value behind the science you are working on. One colleague of mine even did some consulting for a hedge fund, seeking new methods for valuing investments. It led to a new line of applied research in the area.

Side research projects or external research



collaborations can also make up a second gig. These activities, such as conducting analyses for a colleague, may be a natural extension of your core research but involve other investigators outside your group or (preferably) your institution. Like technical consulting, external collaborative research can help broaden your technical experience and add to your record of scholarly output, such as through a publication. But a successful collaboration can itself turn into a new career opportunity. For graduate students and postdocs, external collaborations may pave the way for a smooth transition from one institution to another. You never know when a small side project may turn into a fellowship.

Teaching can be a valuable second gig — especially for scientists and engineers outside academia. Although the number of full-time faculty positions may be stagnating, there are many opportunities to teach outside 'the academy', whether by delivering guest lectures or even becoming an adjunct faculty member at a local university. Preparing and delivering lectures on a technical subject can bring intellectual insights, even on material you know by heart. Some employers value their employees' adjunct positions because this helps with recruiting and keeps a company connected to the latest research in academia.

A volunteer activity can also provide a second gig. Serving on the advisory board of a company or a local educational institution can help you connect to your community and unearth opportunities for consulting or collaboration. For example, volunteering at

a science museum might turn into a collaborative science-education project.

Serving in a leadership role in your own institution, such as a committee assignment or ad-hoc task force, can allow you to broaden your 'internal' professional network, and can help you to understand who gets things done and find out where bureaucratic bottlenecks occur. Professional and scientific societies also provide numerous opportunities for individuals to serve in leadership roles on committees and in elected positions. Putting yourself forward for this can help to expand your network across your entire discipline.

The biggest downside of any second gig is that it takes

time. Scientists or engineers are often busy enough with their regular job. And junior-level scientists' advisers, worried about their own tight schedules, may discourage their charges from taking on any outside responsibilities.

More strings to your bow

There are certainly times when scientists are too busy to manage a second gig. But forgoing all opportunities to engage in outside professional work can leave you professionally vulnerable: entirely dependent on your current job to advance your career. And most creative people find that a small amount of extracurricular work can be refreshing and may actually enhance overall productivity. A small time investment is unlikely to do irreparable harm to your career — it is far more likely to expose you to valuable new professional opportunities.

Too often, scientists and engineers consider themselves highly specialized experts, capable of contributing to society only through the research. In reality, those with scientific training have the capability of becoming broadly adaptable problem solvers, making valuable contributions in a wide range of environments and roles.

Cultivating a second gig can be a means for your technical talents to find expression in the broader world. And it can illuminate career opportunities you would have never seen had you remained in your laboratory. ■

Peter Fiske is chief executive of PAX Water Technologies in San Rafael, California, and author of *Put Your Science to Work* (American Geophysical Union, 2001).