

But in 2014, just as she was about to accept a job at a data-science company, she learned that her application for a Royal Society Dorothy Hodgkin Fellowship had been accepted. The five-year research award helps scientists with considerable carer responsibilities or health issues to pursue flexible working arrangements. The fellowship enabled Asquith to move her research to the University of Sussex in Brighton. "It was a real life-changer," she says. Now, she can stay on top of her research as well as spend time with Jessie, who has been in remission for the past few months.

Although Asquith has been able to continue her work without interruption, other scientists who are single parents might need to take a break of up to several years to tend to their families. For those researchers, the Daphne Jackson Trust in Surrey, UK, offers a fellowship that helps scientists to update their skills and return to research after a break. The NIH and the US National Science Foundation also offer options that enable scientists who take a leave of absence to extend the funding period of grants.

EXTENDED FAMILY

The demands of work and childcare can be all-consuming for a single-parent scientist. But taking care of their own emotional needs should be a priority, too. "Social support is really important for single parents," says Seager. "You need other single parents. You need to find your demographic."

For Seager, that clan was an informal support network for widows in the town where she lives. The women met regularly for coffee and commiserated while trading parenting advice and offering each other emotional support. Seager also found support from within the lab. Her research group rallied round after her husband's death and became a sort of extended family. Often they would go on holiday with Seager and her children as an extension to conference trips. Back home, the group would venture out on weekend hikes. "The lab played a huge, amazing role," Seager says. "Ultimately, it's really about finding a social network. If you don't have family to rely on, it's the friends who can step in and take care of your kids and provide another kind of support."

Scientists who are single parents say that although the sacrifices and struggles can be arduous, the rewards are worthwhile. And the fulfilment that stems from maintaining a research career in difficult circumstances can help scientists to become more effective parents. "I wouldn't have done all this," says Asquith, "if it hadn't been for the ambition to be the kind of parent I wanted for my daughter." ■

Helen Shen is a freelance writer in Sunnyvale, California.

TURNING POINT

Gun-crime analyst

Garen Wintemute has spent his career — and more than US\$1 million of his own funds — studying firearm violence. The physician-scientist at the University of California, Davis, reports that a new generation of gun-violence researchers is emerging as funding picks up.

Were funds available when you began this work?

Yes. In the late 1980s, rates of firearm violence were rising rapidly, and Congress made research funds available to attract people to the field. But in 1996, that mobilization effort was choked off. It was never an outright ban on research: then-US Representative Jay Dickey (Republican, Arkansas) introduced an amendment stating that funds from the Centers for Disease Control and Prevention could not be used to advocate for or promote gun control. But the writing on the wall was 'don't fund the research'. That was applied to budget appropriations, including for the US National Institutes of Health (NIH). My group and others lost funding.

How were you able to continue your research?

We had to let people go, but we secured funding from the National Institute of Justice and private foundations. It wasn't enough.

Did that prompt you to use your own funds?

I started to spend my own money in 2005 because I wanted to bring people together and keep this work going. Some of it can only be done in California, because we collect high-quality individual-level health and criminal-justice data related to firearm violence. In 2014, I wrote a pledge to give more over the next 4 years, up to \$2 million.

What were your key findings?

One project established that, for people who buy guns legally, previous convictions for violent misdemeanours confer great risk for future violence. We also did the first prospective study tracking handgun purchasers and their incidence of violence: in the first week of gun ownership, the risk of firearm suicide is 57 times higher than expected for adults in California.

Has the funding situation changed?

Yes. Last year, Dickey said he has regrets — he meant for the amendment to cut off advocacy, not research. On 11 February, he expressed support for California legislation to establish a Firearm Violence Research Center at the University of California. The person who had the most to do with funding being cut off is in a uniquely influential position to advocate for its increase. As it stands now, the NIH is funding research.



What is the current status of the field?

I used to worry about who would do this research after I retired. There were maybe 12 of us around the country, all of a similar age. Without funding, there was too much uncertainty for most people to enter the field. But I don't worry about that anymore. We're now hiring three nationally ranked junior faculty members to join us as investigators, and launching a fellowship programme.

What are your conversations with early-career researchers like?

The field is controversial and can be physically risky. We get hate mail and death threats. But there's plenty of intellectual elbow room and hugely important questions nobody is answering. Since the 2012 Sandy Hook shooting in Newtown, Connecticut, I have heard from all kinds of people — undergraduates to early-career professors — asking how they can help.

How do they feel about the risks?

People have become more tolerant of the risks involved in this work. When there is something preventing research from being done, that thing feels like a bully. And no one likes a bully.

Do you think the field will continue to grow?

Although mass shootings haven't resulted in congressional action, research funders have stepped up. I think we're still at the beginning of the beginning of a long-term change in the way the country thinks about firearm violence. We're setting up the infrastructure and labour force to keep this work going. All that said, compared to the need, the situation is still very grim. ■

INTERVIEW BY VIRGINIA GEWIN

This interview has been edited for length and clarity. See go.nature.com/er8c4g for more about his work.