HOLDING A MIRROR UP TO SOCIETY

Statistics at Work

An Interview with Denise Lievesley

Every March, the College invites special guests to attend the formal Founders' Dinner celebration. This past year, we were thrilled to host Professor Denise Lievesley (CBE, CStat, FAcSS), Principal of Green Templeton College, our sister College, at Oxford.

Before coming to Oxford, Denise was Executive Dean of the Faculty of Science and Public Policy and Professor of Social Statistics at King's College London from 2008. Formerly she has been Chief Executive of the English Health and Social Care Information Centre, Director of Statistics at UNESCO, where she founded the Institute for Statistics, and Director (1991-1997) of the UK Data Archive. While Director of the Data Archive, Denise was also Professor of Research Methods at the University of Essex. She has served as a United Nations Special Adviser on Statistics, stationed in Addis Ababa.

Denise served as President of the Royal Statistical Society (1999-2001), and as President of the International Statistical Institute (2007-2009) and the International Association for Official Statistics (1995-1997).

A Fellow of University College London, she has honorary doctorates from City University and the University of Essex and is a Fellow of the Academy of Social Sciences. She is a member of the Executive Committee of the Institute of Fiscal Studies, a Governor of King's College School, Wimbledon, and a member of the steering committee of the Council of European Social Science Data Archives. Her research interests relate broadly to the quality of and trust in official data, and the use of data for research purposes.

She was appointed Commander of the Order of the British Empire (CBE) in the Queen's Birthday Honours in June 2014 for services to social science.

Before the Founders' Dinner festivities began at our College, we were able to talk with Denise about her early career, how statistics can have an impact on society, and why working with graduate students is so rewarding.

Photo: Donald Fisher, Denise Lievesley, John Diggens, Beverley McLachlin, Scott McIntyre

Your first position as a statistician was with the sampling branch of the government's social survey. What was the most rewarding part of that work?

I was responsible for the design of all of the samples for the government surveys and I developed a new method of sampling. The electoral register used to be used as the frame for drawing samples. And the trouble is that it's not a complete list of the total population. People don't get on the electoral register for various reasons. Therefore, our surveys missed certain parts of the population, ones that people are probably most interested in: those on the margins of society.

So I developed a new system of post-code sampling. That was back in the early 1970s and it's still the method that's used for all government surveys in the UK now. I was the conduit to the Royal Commission on homelessness. I had to try and estimate how many homeless people were in the country and what their circumstances were.

We did a census of all of the main shelters for the homeless. And then we tried to pick up those people who weren't in shelters by going to places like soup kitchens.

I think there was a view before we did the research that the homeless were feckless in some way. That there were people who had brought this on themselves, or that they did not want to live a conventional life.

And what we found was that an awful lot of people have had just this combination of terrible circumstances and have fallen into this situation and don't find any way out. There were a lot more young people than we had anticipated.

After gathering that information, did you see any change happen on an institutional level?

Well, the Royal Commission was very influential and they produced a report. But, as is often the way with government reports, not enough happens and not enough happens quickly enough. And sometimes government commissions are set up in order to put off a problem rather than deal with a problem.

So I'm not complacent. Not enough happened. But I think the fact that we challenged people's prejudices was really good. And it was about the time in the UK that there was a very, very influential TV program, a documentary called *Cathy Come Home*, in 1966. And as a result of that documentary, a charity for the homeless called Shelter was set up. So it's not just about what influence you have within government, it's what influence you have in the wider popular opinion and with non-governmental organizations and so on.

I'd say that statistics is absolutely critical. It's holding a mirror up to society, basically. That's how I think of statistics. It's about saying: "We all have prejudices. We think we know what we look like." We have this sort of image. We generalize from very, very small numbers from very particular circumstances. And one of the things that good, high quality statistical data can do is, it can actually show you a representative sample.

Moving from your work in the UK to an international level, how did you hold a mirror up to other societies?

I worked in the United Nations and I had the responsibility of gathering the data that fed into the Millennium Development Goals, which are now the Sustainable Development Goals. So I had to collect information, for example, on how many children of primary school age were in school across the world. And governments lie with statistics all the time. There are incentives for them to lie with statistics. So they say that all children are in school or that there's been a huge increase in the number of children in school because this is how they get votes.

Sometimes they live the other way around and they pretend that situations are worse than they are because they want to get funding from international, bi-lateral organizations. And they want to demonstrate that they really need this money. So you get perverse incentives to misreport data. And my job was really to try to collect as close to the truth as you can get.

If a country hasn't put in a good statistical system, if the general population is frightened about providing data to the government, if there isn't a system of trust… then the data are going to be inadequate in a whole series of ways.

I'm not in any way saying that we got the truth in many countries, but at least the attempt in doing so, and the building of statistical capacity within those countries, and the publishing of the data and then raising questions about that data was an important part of the process.

What was the hardest situation you've been in as a statistician working with countries who reject or fudge statistics?

I remember I was in Nigeria and Nigeria at that time hadn't had a population census that anybody believed. There were huge problems with the quality of data. I mean, it's a country that's had internal conflicts, huge religious tensions. There isn't a trust system. They've

had military governments. Not an easy country to work with and they can be quite aggressive as well.

I was in Nigeria and I had produced a report that contradicted the data of the government in relation to their education system. I was interviewed by the press and I presented the data and why we thought this was not perfect data, but of reasonable quality, and why it differed from the government data. And then the president of the country had a press conference and absolutely rubbished me. It was dreadful. Basically his argument was that I was an enemy of the Nigerian state, that I had come from an international agency to undermine the government. It was awful, just awful. And I had to sit there and listen to him doing this.

I went to my hotel room and I wrote my resignation letter to the director general of UNESCO, who was my immediate boss, because I just felt that I had just let him and the agency down so badly. And my advice to you is that if you write a letter like that, don't send it. Sleep on it.

And so I wrote a resignation letter and a few minutes later I got a phone call in my hotel room from the Norwegian ambassador who was at the same meeting and had sat through both of these press conferences. She's a lovely woman. Absolutely wonderful woman. She had lived a lot of her childhood in Tanzania and she said to me, "I've got a bottle of whisky in my room. I thought you might like a tot of whisky."

So I went to her room and she said, "Now I'm here to tell you why you mustn't send your resignation letter." And she proceeded to tell me that if I sent that letter, it would immediately be like admitting guilt. It would immediately be admitting that the president of Nigeria was right. And I would undermine any future director generals of statistics in the UN because they couldn't go and have that sort of fight if I'd given up on it.

She told me about how the next day I mustn't look at any of the newspapers. She said, "Just go for a walk. Don't even look at the newspapers. Don't go to breakfast and pick up one of the local newspapers. Just concentrate on what you have to do next. And absolutely don't send your resignation letter."

I didn't send it. And I didn't look at the newspapers.

Now as Principal of Green Templeton, what's the most rewarding part of your work?

The quality of the young people, the international nature of the College, the fact that we're a graduate college. The mixture of subjects across management, medicine, and applied social sciences is really great from my perspective.

Oxford is just amazing. I go to dinner and I'm always sitting next to someone who is quite extraordinary. I come back and my partner, who is retired and absolutely loves the College, he and I will walk back to our lodgings and we sort of pinch ourselves!

What have you learned from the students there?

I learn something from them every day. They're incredible. The research that they're doing is really interesting. So I meet every student for fifteen minutes every year in what's known in funny old Oxford terminology as "collections." And so I read the student's file and I see them for fifteen minutes. It's not an interview, it's a chat about how they're getting on, what's going well, what isn't. So if there's things that aren't going on with the department, I might be an advocate for them or I might give them advice. Or maybe they don't like the quality of food at Oxford… Whatever it is!

The days when I've had a lot of collections, I always end the day on a high because meeting the students just motivates you so much. And I can see that here, too, at Green College. I actually just met a young woman who did her medical training at Oxford and ended up here and has just gotten a job in Toronto. She's so excited about it, which makes me excited. So you've got high quality students and a wonderful community here, too.