

## Interview

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# Denise Lievesley, King's College, United Kingdom

*Interviewed by: Emily Bass and Jennifer Carr, The George Washington University*



Dr. Denise Lievesley

*Dr. Lievesley, is currently a professor and the Head of the School of Social Science and Public Policy at King's College London. She was interviewed by Emily Bass and Jennifer Carr who had the honor of interviewing Denise Lievesley in 2013. The interviewers were students of the GWU Survey Management class (course 6238). As with the other interviews in the series, the purpose of this interview series is to profile individuals that demonstrate outstanding leadership in the field of statistics and explore moments of courage and/or crisis in their career.*

### 1. Introduction

Professor Denise Lievesley has established a reputation as a statistician with a passion for upholding the

principles of professional and data integrity. Throughout her career, she has been committed to protecting the integrity of official statistics and ensuring that they remain free from political influence.<sup>1</sup> The following interview explores specific times when her professional integrity was in question, and how her personal beliefs and relationships influenced her responses. In addition, she reflects on her career in general and shares some advice for young professionals entering the field of statistics.

### 2. Background

Denise Lievesley, a British social scientist by training, is a professor and Head of the School of Social Science and Public Policy at King's College London. Although most individuals study statistics at a master's level, Professor Lievesley had the opportunity to do so as an undergraduate at the University College London.

Building on a 2004 interview in *Significance*<sup>2</sup> we asked Professor Lievesley to further elaborate on what inspired or influenced her to study statistics. She recalled that:

*Moving from one school system to another, you end up really concentrating on subjects that you feel comfortable with and I felt really comfortable with mathematics. I just enjoyed mathematics as a puzzle, as a game, and if you get excited by it, it is relatively easy to teach yourself mathematics. So, I*

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<sup>1</sup>King's College London. "People". Accessed April 13, 2013. <http://www.kcl.ac.uk/sspp/about/people/hos.aspx>.

<sup>2</sup>Lievesley, D. "Talk and travel". *Significance* 1 (2004): 46–47. Accessed February 5, 2013. doi: 10.1111/j.1740-9713.2004.00013.x.

knew that I needed to do something long term that was based on math, but I didn't know what you did with mathematics really.

My parents who had both left school at age 14 didn't have any clue what you did with mathematics, either. I guess I thought that you taught or you became an accountant or an actuary. I didn't want to be sitting counting things or working on balance sheets, so the idea of being an accountant didn't appeal to me. Because we were traveling all over the world... I was interested in actually doing something that made a difference. After reading an article about statistics, my interest was sparked in the fact that this was a field that could be intellectually exciting but also could be of relevance. Taking your skills and making a difference using those skills – that is what excited me. I studied as an undergraduate and haven't done anything else since.

Beginning her career as an official statistician specializing in survey sampling and subsequently conducting research on non-response, Professor Lievesley has held a variety of leadership positions in the field of statistics and professional societies.<sup>3</sup> Considering she has had a lifelong career in the field, we were interested in the aspects of the profession that are important to her and what has kept keeps her excited about the work she does.

**Student(s): Throughout your career it appears that the promotion and education of statistics are very important to you. What have been the driver(s) that make this so important?**

*I have worked in government, I have worked in international agencies, I have worked in charitable organizations, I have worked in the UN, I have worked in the NHS, and I have worked now in universities. The trend throughout [until relatively recently], has been statistics – it has always been a job managing statisticians or a statistical process. My first job was in the sampling branch of the government social survey... like the survey part of the*

<sup>3</sup>Some of her professional positions include, but are not limited to: Advisor at the African Centre for Statistics of the UN, Chief Executive of the English Information Centre for Health and Social Care, Director of Statistics at UNESCO, Director of the UK Data Archive, Professor of Research Methods at Essex University, President of the Royal Statistical Society, President of the International Statistical Institute, President of the International Association for Official Statistics, and International Representative on the Board of the American Statistical Association.

*U.S. Census Bureau. I joined the sampling branch and worked my way up to be head of the sampling unit. So for my first job, it was a doing job, it was actually designing and drawing the samples for a range of government surveys and doing methodological work on sampling.*

*Subsequently, I got interested in certain aspects of social statistics, in particular, education and health statistics. Then I got interested in the education and statistics of developing countries. It is really only applied statistics in a society context that is a thread through what I do, and now I don't really have that in my job. I have it in committees that I sit on and activities that I fulfill but now I'm in a management job in university – I don't have statistics in my school.*

When asked what she found exciting in her career, she responded,

*I like challenging myself to do something new. I don't like moving so completely that I don't have any base or confidence in what I'm doing. But if you can get something where you are taking what you have learned in one area and apply it somewhere new that to me is really exciting.*

### 3. The courage of integrity

As previously noted, Professor Lievesley is known for protecting the integrity of statistics, and in particular, official statistics from political influence. This was first made evident when, in her youth, she helped found Radical Statistics,<sup>4</sup> which was “created to promote the importance of integrity and relevance of statistics.” This important theme has continued throughout her career and she has held strongly to her beliefs in the face of frequent requests to manipulate data. When asked if there were steps she has taken to limit outside influences on the manipulation of data, she replied,

*... I have spent a huge amount of time and energy and done a lot of things in this area. We need to challenge the status quo and to challenge the fact*

<sup>4</sup>Radstats is not a professional or an academic organization. Members are ‘radical’ in being committed to helping build a more free, democratic and egalitarian society. Members of Radstats are concerned at the extent to which official statistics reflect governmental rather than social purposes. See <http://www.radstats.org.uk/about-radical-statistics/>.

that it tends to be the people with resources who then manage the agenda for statistics.

I also chaired the ethics committee of the Social Research Association in the UK and got very involved in working to develop a set of professional ethical guidelines<sup>5</sup> which is still used to this day and also fed into the development of guidelines for the International Statistical Institute.<sup>6</sup>

When I went to work at UNESCO,<sup>7</sup> one of the things that I did very quickly, was dissolving a division of statistics that wasn't performing and then created an Institute for Statistics.<sup>8</sup> I then set up an independent board because I knew that the UN is a political organization and there would be pressure through the director general of UNESCO or through ambassadors of countries to UNESCO. . . I knew I needed an independent board to protect the integrity of the data we published, to support us if we refused to publish certain data, or to help us if we were challenged by governments or we were trying to challenge governments over data.

I've worked through the Royal Statistical Society,<sup>9</sup> when I was president and subsequently as a member, trying to fight for an independent statistical system – a system that reports to Parliament where the head of that statistical system isn't a political appointee, where users get to engage and contribute to the agenda for statistics, etc.

She went on to explain that in the UK, there is a low level of trust<sup>10</sup> in official statistics; until a few years

ago official statistics in England had the lowest trust of all OECD<sup>11</sup> countries.

*“... it [trust] is desperately low, really, really low and that is due to the fact that there hasn't been a proper process for the release of official data. It hasn't been separated from the political spin, as the public just sees, or what it seems to see of ministers manipulating the data in order to show the story they want and then the press doing the same, but to show a different story; so the general public doesn't know who to believe and ends up not trusting the statistics.*

*It's an important issue in this country and it is important issue in many of the poorer countries. . . I have had friends working in statistical offices in some of the poorest countries of the world where they have told me in confidence that they have been forced to manipulate or change the data in order to comply with what the government wants to say, wants to be seen to be saying. So it is a huge issue and one of the things that is hard to get right is that of policy relevance versus political independence.”*

We inquired if there were times in her career that she was approached by government officials to manipulate data. Professor Lievesley shared two specific times in her career where the integrity of data, for which she was responsible, was in question. Although her beliefs and convictions remained the same, the outcomes were exceedingly different.

*In UNESCO it happened to me most weeks . . . because the data are very public data and they matter to countries. . . there are a huge number of incentives in the system for them to want to portray the data in a particular way. So they put a lot of pressure on especially a UN body because they think the UN is sort of owned by the countries. . . I only came close to resigning on one occasion. Most of the time I was able to withstand the pressure, there was one occasion where I didn't because they actually sort of denounced the UNESCO statistics. The prime minister of a country denied*

<sup>5</sup>The origins of the SRA's concern to maintain an up-to-date set of ethical guidelines and be proactive in the discussion of social research ethics lies in our sense of responsibility for standard-setting in the profession of social research. See <http://the-sra.org.uk/wp-content/uploads/ethics03.pdf>.

<sup>6</sup>The ISI Mission is to promote the understanding, development and good practice of statistics worldwide. See <http://www.isi-web.org/about-isi/objectives-mission>.

<sup>7</sup>The United Nations Educational, Scientific and Cultural Organization is a specialized agency of the United Nations.

<sup>8</sup>Lievesley, D. “Sound policy-making requires good data”. Accessed April 27, 2013. <http://www.unesco.org/education/wef/en-news/DLievesley.shtm>.

<sup>9</sup>The Royal Statistical Society (RSS) is one of the world's most distinguished and renowned statistical societies. It is both a learned society for statistics and a professional body for statisticians. See <http://www.rss.org.uk/site/cms/contentCategoryView.asp?category=289>.

<sup>10</sup>As the keynote speaker at the internal conference, The Impact of Information and Integrated Statistical Systems on Socio-Economical Development, Denise emphasized the importance of trust. She has been quoted as saying, “A prerequisite for evidence-based policy and for managing results is that data must be trustworthy and it must

be trusted.” She also listed building trust in statistical systems as a priority for governments. See Zacharias, A. RAK cannot count on its numbers. *The Nation*, November 12, 2008. Accessed April 27, 2013. <http://www.thenational.ae/news/uae-news/rak-cannot-count-on-its-numbers>.

<sup>11</sup>OECD stands for the Organization for Economic Co-operation and Development. Its mission is to promote policies that will improve the economic and social well-being of people around the world.

the UNESCO statistics in a very public environment. . . , I was at the meeting but he [Director General of UNESCO] was in the meeting and he apologized for our statistics. I went to my room and wrote my resignation letter because I thought; if I hadn't got the head of the agencies support then there was a problem.

The minister for aid from a Scandinavian country asked to see me and said, 'Have you written your resignation letter?' I said I had, but she said, 'I hope you haven't delivered it.' I said no, I will sleep on it overnight. She then talked to me about why I shouldn't do this and how if I did resign in that situation, the press would interpret this as the Director General of UNESCO apologizing for our statistics and he [country minister] was right and that was why the Director of Statistics had to leave. So, she persuaded me that the worst thing I could do was to actually resign and I just had to grit my teeth and continue.

That was the worst instance that I had, but I had a lot of pressure, a lot of times. . . . Nothing dramatic happened at the time. It felt pretty horrible and dramatic to me at the time, in practice. You could get these things out of perspective but to me it mattered hugely that we got the right statistics but they are only statistics, nobody died. [Laughs]

Below, Professor Lievesley describes another time during her career when she was "put under immense pressure" to allow data to pass through her agency without proper data validation. When she refused, Professor Lievesley was eventually asked to leave her office as chief executive.

*It was confidential data . . . but it was also data that hadn't been quality<sup>12</sup> assured that could potentially be incredibly misleading. . . . once you get to small numbers, you have to be really careful [with the data]. [The data were being] quality assured on a quarterly basis. . . [however, it] was being delivered to a private company. . . on a monthly basis [where personal identities were also included] which is a risk in itself. I didn't think that the data were robust enough to disseminate on a monthly*

*basis as the data hadn't been quality assured on a monthly basis.*

*I was very worried that [the data] would mislead the public and could badly damage [people's careers]. . . . It is hard to get this right because you want to provide open data in order that people can . . . make appropriate decisions. . . . [However] on the one hand you want information to enable you . . . but you also have a responsibility to guard against . . . an environment in which the data are misused to mislead or to frighten. . . . [When] people are damaged as a result of incorrect data . . . or change their behavior [based on incorrect data, this is not acceptable no matter what the incentives are] . . . of putting out those sources of data.*

*It's hard to get that balance right and I wouldn't argue that my agency necessarily got it right but I couldn't live with the fact that the data were being taken inappropriately and provided to a private sector company who were using it provocatively.*

**Student(s): Do you feel that during these difficult situations it was your own personal integrity and your sound belief in statistics that got you through?**

*Most of the time and certainly when I was in UNESCO there would be fights over data and so on, yes that is exactly what got me through; it was confidence in robust procedures, confidence and quality of my colleagues, the work they had done. If we made a mistake owning up to the mistake; I think that is really important because we all do make mistakes and so having an environment in which people weren't punished for owning up to the mistake.*

*In terms of the [situation where Denise was asked to leave her office], I lost complete confidence in myself, I almost went under, I almost sank, it was really, really tough. For 2 months I couldn't even leave the house because that was actually a severance from my colleagues. I had 400 great colleagues, I really enjoyed working with them but they were told they were not allowed to contact me. My computer was taken so I didn't have any of my contacts because they took my computer. So it was really frightening and it was very, very demoralizing.*

*The only thing that got me through that was my partner; he was magnificent; so sometimes it's faith in yourself and sometimes it is somebody else's faith in you.*

<sup>12</sup>International statisticians are constrained in what they can do about the quality of data that they receive and since the expectations of users are often unrealistically high, these constraints must be honestly expressed. See Lievesley, D. Making a Difference: A Role for the Responsible International Statistician? *The Statistician, Journal of the Royal Statistical Society*; Series D vol. 50, issue 4 (December 2001): pg. 383.

#### 4. The future of statistics

Statistics is an ever changing discipline and Professor Lievesley's long career and breadth of experience across multiple continents has provided a unique perspective. Considering her experience and success as an international statistician, when we questioned her about what might benefit the future of statistics, she suggested the following:

- *Capacity building of statisticians by engaging them with the community so that they know they have support outside is really important. I'm a great believer for things like professional associations... If people are going to be challenged, then they need to know there is this community to support them. If someone is working in an isolated position and they don't know about community support, then they are very vulnerable.*
- *Capacity building in terms of actually working with statisticians in poorer countries of the world to try and get the balance right among relevance, integrity, and impartiality. I think that training and support systems can help with that... in the UK there are statistical societies in place have been really important and very influential in ensuring that we had a statistical system that did report through to parliament and not to the government of the day... You don't make a change overnight; so I think that it means you have to work at it over many years.*

In addition to advice to grow the field of statistics, we asked her to look back on her experiences and assess what kinds of lessons she has taken away that others could learn from.

*Lessons more generally... you think something is really critical and actually a few weeks later you have probably forgotten about it and so on. So as long as you are consistent, you have good processes... you have to decide what sort of fights you are going to fight. I think I haven't learnt that, I think I've spent too much energy fighting small fights that really weren't terribly important. ... another lesson is treating people in the same way you would like to be treated yourself. It matters to me that we have a happy working environment and the people feel valued and they want to come to work ... that is a lesson that I hadn't realized at the start of my career – how important that was to me and to colleagues. So I guess those are the lessons I've learned, don't take yourself too seriously. [Laughter]*

**Student(s): We can imagine it is difficult when you are wrapped up in the moment to remind yourself of those things and it seems these are life lessons for almost any situation.**

*Yes. I... Mean they are clichés a bit, aren't they? But yes it is hard and I'm sure I still sweat the small stuff now.*

#### 5. Leading the Future Workforce (Regardless of Gender)

Based on her current role as a professor, and the fact that she became interested in the field at a young age, we were interested in how she is encouraging younger people to enter statistics. As professional women, we were also interested in how she might be encouraging women into the field and how her gender may have affected her career decisions. Her response was unexpected.

*I find it really difficult to answer that question because I have never been a man so I don't have control over it. I don't know how it has affected what I do. I think the greatest influence in my life was my dad, so I think I'm quite male in ... my approach and I have never been a mother. So, my career has been what I've put first and I've sacrificed other things along the way; probably [this is similar to] men who make those sacrifices.*

**Student(s): Even in a situation where you felt that perhaps your professional integrity, or the statistics that you were giving, were questioned because of not necessarily your decision, but because you were a woman?**

*Oh loads of time, loads and loads of times. In particularly working in some countries when I was working in the UN ... I never let it bother me that much, I'd just plowed on.*

*... I have always resisted, I suppose being pigeon holed as the woman statistician. I was asked to chair the International Statistical Institute women and statistics group and I did for a while, but I can't say I was really excited about that role.*

*The environment I was brought up in was just very different because I was a lone woman and now of course there are a lot of women working in the field and discrimination and prejudice is very different when you are a lone woman from when you are one of a number of women ... although I have suffered a lot of patronizing remarks, I think I have benefited. I don't think I would have been presi-*

dent of the International Statistical Institute or the Royal Statistical Society if I had been a man... I think I came to people's attention because I was a woman and there weren't many women in the field. I got remembered because I was a woman; I'm actually quite lucky in that on balance I have probably benefited. But I have benefited through sacrifice. I never had kids and I often had a difficult home life because of it.

Now what I tend to do is... try and support things like family friendly policies... I'm much more interested in those issues than I am in the few that are just specifically about the progress with women... In terms of mentoring and supporting... I'm doing it for young people irrespective of gender, rather than specifically doing it for women.

One of the concerns I have is that it still is acceptable in a lot of jobs for a woman to go home at 5:00 o'clock... to pick up the kids. You might not get the same progression because of it, but it is acceptable for her to do it. It is extraordinary difficult for a young man to do it... and I've got quite a lot of young men in the school... with young families. I do worry as to whether they actually have time to spend supporting and helping their partner, because if they're at work and their partner, their wife is not getting the support and help she needs, she is probably having to sacrifice in her career.

**Student(s): Honestly we thought you would have had more issues [around being a woman] because of the different cultures you have worked with.**

I've got stories I could tell you of how I've been patronized and so on, but I don't think I can think of an example of where I personally have experienced discrimination that has actually affected my career opportunities. I can think of circumstances where being a woman has actually helped me. But I think that is very different in an environment where you are the odd one out and you are different because you are noticed. I don't know what future generations would experience in this respect.

**Student(s): Would you say for other women out there looking to get into leadership roles that one of the barriers is self-confidence and being strong in your convictions and your beliefs and being able to stand up for them?**

Yes, I guess so, but not necessarily needing to do it aggressively. It is really about confidence and being firm and consistent. I don't think there is any contradiction between having confidence and hu-

mility. I think statisticians have to have confidence and humility to own up to the limitations of our data and what we know but we also have to be confident in what we do know. And I also don't think there is any contradiction between being firm and being flexible.

## 6. Conclusion

If one was to ask ten people how they define leadership and courage, one would most likely get ten different answers. These concepts are not easily defined and are highly subjective. Going into this interview, we did not attempt to define either concept because we did not want Professor Lievesley's answers to be constrained by pre-conceived notions.

When we asked her what she thought made a good leader, she stated:

*You also have to recognize that you can make mistakes and you can go wrong and you do all the time, and not let that shake your confidence, but own up to it. I think people who manage mistakes are strongest actually. People who get hit by a mistake and try and ride it out without actually acknowledging it, without learning from it are those that eventually won't succeed.*

*So it is about getting that right, you do need confidence in yourself but none of us is really infallible. We all tend to get things wrong. We get things wrong in relationships; we get things wrong in terms of how we make decisions about priorities, and so on. So, just acknowledging that and not letting that throw you is really important.*

We would describe Professor Lievesley as a courageous leader. As defined by Kevin Rafferty, CEO of Business Frontier, Inc., courageous leaders know their values. Courageous leaders create meaning by focusing on intrinsic motivators such as dignity, community, and caring. They honor people first, have a firm belief in decency and fairness, and teach people to liberate and lead themselves.<sup>13</sup>

Her shared experiences encompass all of these attributes; the most obvious examples being her willingness to resign from UNESCO when the integrity of their data were challenged and ensuring quality-

<sup>13</sup>Rafferty, K. "Courageous Leadership." Last modified December 2010. Accessed April 27, 2013. <http://www.kevinrafferty.com/CourageousLeadership.pdf>.

assured data is shared with the public. Other examples include taking responsibility for her staff's happiness when the Institute for Statistics moved from Paris to Montreal and working with professional societies to promote statistical communities.

### About the authors



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