Fly: Interview

Title:

Rubric: Dénes Csala talks to Sam Beckett, Second Permanent Secretary and Deputy CEO of the Office for National Statistics and Joint Head of the Government Economic Service.

**DS: Data can be fascinating and exciting, but it can also be boring and raw. What do you actually like about data and how did you come to appreciate the importance and necessity of it?**

**SB:** My career started in the Treasury in the late 1980s, where I started as a provisional economic assistant. I’ve worked in government ever since – in and out of economics roles at the Treasury, Cabinet Office, the Department for Business, Energy and Industrial Strategy and now the Office for National Statistics (ONS). Over that time, I've been a statistics producer and user and I believe that statistics and data are at the heart of good evidence for policy-making. I've always found them absolutely crucial for getting good advice to decision-makers. In my career, that’s usually been to politicians who have big decisions to take. So, data analysis and statistics have always been a big part of my job.

I smiled when you said that data are boring and nitty gritty because I was recently introduced at an event as second permanent secretary at the Office for National Statistics and queen of the nerds, which I took as a compliment.

**DS: Data is increasingly fashionable and there is hype around the volume and the veracity of it. Do you think that this made your job as a statistician at the ONS easier or more difficult?**

**SB:** I think the hype is good if you can live up to it and give it firm foundations. The excitement about the power of data and moral questions around algorithms are in the public discourse, which highlights the importance of our work. This also helps us to attract talent and people with new, cutting-edge skills into the organisation.

In the ONS, we talk about statistics, data and analysis as slightly separate concepts in a way. But we need to remember that data on its own isn’t always useful. I’ve been in meetings with senior people from across government and while we might have loads of data to present, it’s the insight that they need. Data science is about innovative ways to gain insight and answer questions from the un-curated data.

The hype is a good thing for the profile of the ONS, but it is a lot to live up to. The expectations on us are very high to be able to answer any question of the day and sometimes getting to the heart of a question can take time and resources.

**DS: There is also a lot of responsibility around the kind of information being extracted from the data and whether you are reading the lessons correctly. We have seen examples of data being used or presented irresponsibly and inaccurately. Since major economic decisions that affect millions of people around the country depend on ONS data, what does data responsibility mean to you in your in your day to day work?**

**SB:** I think the role of the ONS is to paint a true and unbiased picture of what is going on in society and the economy. We don’t always get everything right; sometimes errors are made and things we are trying to communicate are miscommunicated or misconstrued. We spend a lot of our time focusing on this and I think it's a key reason why we are independent and not under ministerial control.

This independence – as well as the regulation provided by the Office for Statistical Regulation, which checks the quality of what we produce and occasionally puts the record straight if numbers are misused in public – is vital for keeping public trust in the statistics we produce.

**DS: Against the backdrop of the current cost of living crisis, do you think data, statistics or analysis are the most crucial for giving a data-driven response. The ONS has regular data releases with set deadlines, from which economic policy has to be set. How do you manage these time pressures when there is a real societal need for veritable and accurate data?**

**SB:** The cost of living crisis and what’s happening to prices and inflation at the moment is a really good example of having to keep the drum beat of our regular statistics going while we innovate and add more analytical and experimental approaches on top. We've continued to produce our headline inflation statistics but we've also tried to shed light on what's really going on with inflation and how it's affecting different households and individuals, in an objective way.

We've published some data looking at our headline inflation measure for households across the income distribution and have also set up a personal inflation calculator. This enables you to change the weights in the basket of inflation and specify what you spend on different categories, like petrol or food, over a week, month or year, and get a sense of what your personal inflation rate looks like.

In addition, we have published an interesting piece on lowest cost items. Our groceries statistics within the headline measure are based on a ‘representative product’ rather than looking at essentials or low-priced supermarket offering too. As a result, we introduced a highly experimental method (which therefore comes with warnings) that web-scraped data on 30 grocery items that would make up a household food shop from more cut-price supermarket websites. We focused on where people who are less well-off would be shopping and looked at that inflation rate. This meant we could connect the story that we were seeing in the media and social media about how much people were seeing their food bills go up with our national measure of inflation.

But it showed massive variation depending on what you chose to buy in the shops: over the past year a low-price packet of pasta has gone up by around 50%, potatoes have fallen in price by 14%, while some high-priced items like mince and chicken have risen as well. This meant we could get that sense of how different habits will affect the sense of inflation in the shop. I think this exercise slightly demystified the headline measure of inflation which could still be true – but many people didn’t recognise – and enabled them to see something that more closely reflected their experience.

**DS: This is important because I think the most difficult task for a for a public body dealing with data is how you emphasise the people behind it. What is the ONS doing to highlight the human lives that we are trying to describe with these statistics and ensure they are inclusive.**

**SB:** We are all about statistics for the public good – that is our mantra. So, we do want to reach and engage the public, and that is quite difficult with what can be quite technical concepts.

There are a few things I'd point to. One is the 2021 census, which is a massive engagement exercise right across the country to try to get people to fill in the form in an honest and prompt way and return it. We reached out to local communities and had local liaison groups to explain what questions we were asking and encourage communities to take part. We had a *Let’s Count* campaign to get schools excited about being part of the census. We’re now thinking about how we can piggyback on this fantastic outreach work to improve data collection in other ways as well.

Second is the personal inflation calculator I mentioned. The beauty of this is that people can see themselves in the data. You put your numbers in and you think ‘oh yes, that's me, I'm not being lost in the averages and the macroeconomic level of data’.

A similar piece of work allows you to calculate the market value of your unpaid work at home, like cooking, cleaning or childcare This a very neat way of getting into a quite sophisticated argument about what GDP captures as concept. And broader concepts of prosperity, well being and value.

The third thing I should mention is our inclusive data task force exercise which focuses on making our statistics more inclusive by default. A lot of our statistical collection is based around the ‘standard’ household but we're trying to get into other areas and understand people who might be excluded from the current data – for example Roma and Traveller communities. We are also looking at how children with special needs or disabilities fare in the education system and disabled adults’ access to good services and activities. Our work on inclusion is another way that we try to make the data relevant and inclusive. We have a mantra that everyone counts and is counted, and no one is left behind.

**DS: Data visualisation can be an effective tool for engagement too, such as a map that shows people their local area or postcode. The ONS is creating much more visualisation content, is there a planned direction for this?**

**SB:** It’s a really good question because data visualisation is an incredible shortcut from the data to insight. And that applies to everybody. It’s for people who are regularly consuming data, but also for policy-makers and those people who won't be ploughing through the labour market bulletin or the new inflation statistics. And if you think about ministers having to make rapid decisions about emerging issues, data visualisation is a fantastic shortcut to getting a sense of the evidence. It’s an important tool that is getting more and more sophisticated. But people are getting more adept at reading and consuming it as well, for example, understanding a heat map of what's happening with Covid cases.

We're experimenting a lot at the moment, using different tools to work out what works best and get feedback.

We do have a set of very fundamental standards about accessibility of our data and visuals. This includes basic things like clear labelling and good differentiation of colour, but also rules about accessibility for those with disabilities. It’s about making sure users can understand and not misconstrue the data.

**DS: You mentioned Covid – during the pandemic there was a huge proliferation of data visualisation online of variable quality. We saw countries that didn't even have a statistics agency suddenly start collecting very high frequency statistics at country level, perhaps even a higher granularity. Do you think that Covid was a gift or curse, in terms of the data-driven revolution it brought about?**

**SB:** It was obviously an awful situation – both the human and economic cost of the pandemic. But I do think it's enabled a much broader engagement with data among the public. People who would never have talked about an exponential rise, understand what that means, they were intelligently discussing the R number and understanding different kind of prevalence rates. This is because it meant a huge amount to people. They wanted to assess their own risk and that of their families, and think about where they might go on holiday, so there were huge incentives on people understand what was going on from the statistics in the UK but even other countries. I do think it was a massive education for people from a very unfortunate cause.

At the ONS, we undertook the Covid infection survey. This gave an objective measure of the prevalence in the community because it wasn’t only who were going to hospital who were captured in the data. There were people who didn't know that they were ill being tested on the doorstep and it was through this that we started to understand symptom-free cases. I think this was incredibly important for the UK’s understanding of the pandemic.

It was also very unusual that that data visualisation – charts and statistics from the ONS – that used data in a relatively technical way were consumed by the public on a daily basis. I see that engagement as a good thing. I also think that it's raised the bar in terms of ensuring that we've thought about the way we're presenting, not only for the technical audience but for a much broader group of users. When we looked at some of the wonderful analytic tools that were out there from some outside organisations that inspired us to work harder too.

**DS: This awareness might have put studying and working in a data-related field on young people’s radars. What would you say to a school or university student thinking of going into economics or statistics?**

**SB:** My pitch to anyone starting up in an analytical career would be to explore jobs in government early in your career. You can gain a huge amount of experience in all these different techniques and there's broad scope to change and evolve your interest and expertise with extra training and support along the way. I started my career in macroeconomics and macroeconomic modelling, but I have done all sorts of international work, microeconomic work with the business department, work on preparing the UK leaving the European Union and now I’m at the heart of the national statistical institute.

All along the way you can explore, develop and evolve your skills so you don't have to make those very hard choices early on in your career when it can see seem like you need to specialise. Working in government also means you can bring the evidence to bear or incredibly important decisions that change the lives of the citizens in the UK and more broadly. You might change the world with a fantastic piece of data visualisation that helps a policy-maker take a good decision over a less good one.