19 December 2019

The Royal Statistical Society announces its Statistics of the Year for 2019

The Royal Statistical Society (RSS) is pleased to announce 2019's UK and International Statistics of the Year.

Professor Jennifer Rogers, chair of the judging panel and RSS Vice-President for External Affairs, commented: "Statistics have a remarkable power in their ability to help us understand the key issues of the day. This year's winning and commended statistics capture some of the zeitgeist of 2019 and demonstrate just how enlightening statistics can be."

Winner - UK Statistic of the Year

58%

The proportion of those in relative poverty who live in a working household.
Source: Institute for Fiscal Studies (IFS) - based on Department for Work and Pensions (DWP) figures.

The judging panel chose this figure as it highlights both the growth of in-work poverty and the need to rise to fresh welfare challenges. The last 20 years have seen a major shift in the UK, from poverty being largely seen as a problem of unemployment to an issue that is now seen to afflict working households too.

In the 1990s, many policymakers were seriously concerned about the number of households in which nobody worked. While that number has shrunk - with rising employment rates - new and important challenges have arisen, especially in the form of in-work poverty and persistent poverty. Figures from the Social Metrics Commission show how just under half (49%) of those in poverty are in persistent poverty - meaning that they are in poverty now and have been for at least two of the previous three years.

Hetan Shah, RSS's Executive Director, said: "Policymakers have focused on work as the best route out of poverty, but our winning statistic shows that this will not be enough to eradicate the scourge of poverty in the UK."

Kelly Beaver of Ipsos MORI and member of the judging panel said: "This stark statistic really highlights one of the biggest issues facing the UK - in-work poverty. While it could be seen as positive that more people are in work, this figure shows that employment doesn't necessarily mean an escape from poverty. Far from it, in fact."

Winner - International Statistic of the Year

72.6 years

The estimated global average for life expectancy at birth in 2019 - a new record high.
Source: Our World in Data

The judging panel chose this statistic as much reporting on life expectancy has been focussing on the stalling or even declining life expectancy in countries such as the United Kingdom and United States, plus the sharply contrasting figures for richer and poorer areas within them. Far less attention has been paid to the steady improvement in average life expectancy across the world as a whole - which inevitably affects far greater numbers of people.

Statistics from Our World in Data show that life expectancy has risen from 45.7 years in 1950 to 72.6 years today. On average this equates to life expectancy rising 20.3 weeks per year since 1950.

Commenting on the winning statistic, statistician and member of the judging panel, Professor Sir David Spiegelhalter, said: "This statistic is powerful in that it paints the bigger picture – while much focus has been on life expectancy in specific countries, many may have missed the more positive news that life expectancy across the world has steadily improved to reach a record high."

Highly Commended – International Statistics of the Year

415.26ppm

The concentration of carbon dioxide (CO_2) in the atmosphere - in terms of parts per million (ppm) - as measured, in May 2019, at the Mauna Lao Observatory in Hawaii.
Source: Science Alert

The significance of this figure, the highest ever recorded, stems from the status of CO_2 as a major 'greenhouse gas' and the importance of the threat posed by global warming. The subject has been increasingly topical throughout 2019 with 'climate strikes' and expert warnings that we face a 'climate emergency', rather than simply 'climate change'.

Environmental statistician and member of the judging panel, Professor Roland Geyer, said: "To me, this statistic is as important as it is terrifying. This data, also known as the Keeling Curve, is statistics at its best and has been the main driver behind climate change science and policy."

54 deaths per 1,000

The fall in under-five child mortality rates, globally, since 1990.
Source: World Health Organisation (WHO)

WHO figures, published this year, show that the mortality rate for under-fives, globally, fell from an estimated figure of 93 deaths per 1,000 live births in 1990 to 39 deaths per 1,000 in 2018.

The judging panel chose this statistic as child mortality is one of the leading indicators of overall development. While much work is still needed to close the gap between rich and poor nations, this statistic puts a spotlight on the highly important but relatively low-profile progress that has been made.

73%

Women car passengers wearing seatbelts are an estimated 73% more likely to be seriously injured in frontal car crashes than men.
Source: University of Virginia

This statistic is from a 2019 study by researchers in the Center for Applied Biomechanics at the University of Virginia. The phenomenon was highlighted by Caroline Criado Perez in her book, 'Invisible Women: Exposing Data Bias in a World Designed for Men'. Criado Perez argues that women are at a greater risk of serious injury because cars have been designed using crash test dummies based on the average male anatomy.

The judging panel chose this statistic as while the gender debate has focussed primarily on issues such as the pay gap, this figure shows the underlying problems are more widespread.

Professor Liberty Vittert, statistician and member of the judging panel, said:
"The gender pay gap has been a hot topic this year. However, this statistic highlights a much broader and more fundamental question about the equality of the sexes. It shows that, even in the most unexpected and accidental areas, there can be an astounding degree of bias."

Highly Commended – UK Statistics of the Year

-28.8%
The change in the average sugar content of soft drinks following the introduction of the Soft Drinks Industry Levy.
Source: Public Health England

Figures published in September 2019 show that since the introduction of the 'sugar tax' in 2018, the average sugar content in soft drinks has decreased by nearly 30% from 2015 levels (measured in sales weighted average grammes per 100ml). This far exceeds the progress made in other food and drinks categories - e.g. breakfast cereals - where a voluntary approach had been adopted.

The figure demonstrates the competing merits of voluntary and fiscally-driven approaches (so-called 'sin taxes') in changing both manufacturers' practices and consumers' choices, as well as the power that tax can have in changing behaviour.

10.3%
Electric and hybrid models now account for more than one in 10 new vehicle registrations in the UK - with the 10% threshold being passed for the first time in November.
Source: Society of Motor Manufacturers and Traders (SMMT)

SMMT's most recent figures show that battery, hybrid and plug-in hybrid vehicles have become much more mainstream among UK car buyers, accounting for 10.3% of new registrations in November 2019 - an increase of more than a half on the proportion (6.8%) recorded in November last year.

The panel thought this statistic was interesting as cutting roadside emissions from the UK's vehicles remains a significant challenge. The SMMT's statistics also show sharp year-on-year falls in diesel registrations, in the wake of the emissions scandal.

ENDS

Notes to editors:

- The Royal Statistical Society (RSS), founded in 1834, is one of the world's most distinguished and renowned statistical societies. It is a learned society for statistics, a professional body for statisticians and a charity which promotes statistics, data and evidence for the public good. Today the RSS has around 10,000 members around the world.
- Statistics of the Year is an award-winning RSS initiative which is now in its third year. The RSS has been looking for insightful statistics that capture the overall spirit of 2019 or which had not previously received the attention they deserve.
- Read about last year's winners here:
    - https://www.statslife.org.uk/news/4026-statistics-of-the-year-2018-winners-announced
- **The judges for 2019's Statistics of the Year were:**
    - Professor Jennifer Rogers (chair) – Head of Statistical Research at PHASTAR and RSS Vice-President for External Affairs
    - Professor Sir David Spiegelhalter - statistician and ex-RSS President
    - Dr Gemma Tetlow - Chief Economist, Institute for Government
    - Dame Jil Matheson - former UK National Statistician
    - Kelly Beaver - Managing Director of Public Affairs, Ipsos MORI
    - Professor Liberty Vittert – RSS Statistical Ambassador and visiting scholar, Harvard University
    - Mark Easton - BBC Home Editor
    - Mona Chalabi - Data Editor, Guardian US
    - Professor Roland Geyer - environmental statistician, University of California, Santa Barbara.
- The measurement of poverty, both in the UK and globally, remains an area of lively statistical debate. This year's winning 'UK Statistic of the Year' has been calculated by the independent Institute for Fiscal Studies. The IFS's calculations were based on data from the Department for Work & Pensions (Households Below Average Income Statistics and the Family Resources Survey).
- Follow the hashtag #StatsoftheYear