

Embargo: 00:01 [UK time] 18th December 2018



Statistics of the Year 2018: Winners Announced

The Royal Statistical Society (RSS) is pleased to unveil 2018's Statistics of the Year. There is one UK winner and one international winner, plus eight highly commended statistics. Nominations were made by members of the public from around the world. The judging panel featured an array of eminent figures, including RSS President Sir David Spiegelhalter, **former UK National Statistician** Dame Jil Matheson, BBC Home Affairs Editor Mark Easton and *Guardian* US **data editor** Mona Chalabi. This is the second time the RSS has run the competition, and it follows 2017's highly successful launch.

Hetan Shah, RSS Executive Director: "We were delighted with the **quality** and quantity of this year's nominations - with well over 200 received. The **statistics on this list** capture some of the **zeitgeist of 2018**. Hearteningly, **the world is getting better when it comes to poverty**, even though it's often hard to notice. And renewable energy in the UK is really taking off. But there are plenty of issues left to tackle including plastic waste, women on boards, and even how many Jaffa cakes come in a special Christmas box - highlighting the phenomenon of 'shrinkflation'. Statistics help us make sense of the world around us, and **these numbers tell us how the world continued to change in 2018.**"

WINNER - INTERNATIONAL STATISTIC OF THE YEAR 2018

90.5%: the proportion of plastic waste that has never been recycled.

Around 30% of the plastic ever produced, worldwide, is still in use. Out of the remaining amount (estimated at 6,300 million metric tonnes), it has been **calculated** that 90.5% has never been recycled, while only 9.5% has been recycled.

This 90.5% figure includes approximately 12% of plastic waste which has been incinerated. The remaining 79% has been allowed to accumulate in landfills or in the natural environment.

The judges found these figures to be striking, worrying and timely as 2018 has seen unprecedented concern about the amount of plastic in rivers and oceans - a huge problem that was highlighted by

BBC programmes including Sir David Attenborough's *Blue Planet II* and Liz Bonnin's *Drowning in Plastic*. Campaigns such as Sky News's Ocean Rescue have also stressed the problem's seriousness.

The chair of the judging panel and RSS President, Sir David Spiegelhalter, said: "It's very concerning that such a large proportion of plastic waste has never been recycled. The really low level of recycling has resulted in far too much waste leaching out into the world's environment. It's a great, growing and genuinely worldwide problem. This statistic helps to show the scale of the challenge we all face. It has rightly been named the RSS's 'International Statistic of the Year' for 2018."

The 90.5% statistic came to prominence via a 2018 United Nations report entitled *Single-Use Plastics: A Roadmap for Sustainability*: this prompted a Reuters/Mail Online article (by Joe Pinkstone, on 5th June) which led to its nomination.

Each of the above statistics originally stems from work by three US-based academics (Roland Geyer, Jenna R Jambeck and Kara Lavender Law) entitled *Production, use and fate of all plastics ever made*, and published in *Science Advances*.

Prof. Roland Geyer commented: "We're honoured to receive this recognition from the Royal Statistical Society and its judging panel. We hope it will help draw attention to the problem of plastic pollution that impacts nearly every community and ecosystem globally."

Sources: [Single Use-Plastics: A Roadmap for Sustainability](#), United Nations; [Production, Use, and Fate of all plastics ever made](#), R Geyer, J R Jambeck and K Lavender Law; [Reuters/Mail Online](#)

WINNER - UK STATISTIC OF THE YEAR 2018

27.8% estimated most consumed* for about an hour
28.7%: the peak percentage of all electricity produced in the UK due to solar power on 30th June.
*** apart from electricity produced by, for example, fossil-fuel engines in vehicles and other unknown sources.**

The judges considered several statistics which related to the UK's unusually hot summer. In their view, the most insightful and surprising figure was **28.7%** - the peak percentage of the UK's electricity **supply** which came from solar power during 30th June, making it, albeit briefly, the **perhaps the** country's number one electricity **source** (ahead of gas). **But we don't know due to 1) imported electricity, perhaps 2) previously-stored electricity and 3) the uncertainty of guessing wind power, and solar from the changing angle of the sun.** The statistic demonstrates the fast-growing importance of solar within the UK's electricity-generating mix; its contribution was negligible only a decade ago. This step-change in solar generation has also contributed to **renewable** energy accounting for a record proportion of UK electricity **supplies** (30.5%) over the past year.

Dame Jil Matheson commented: "2018 was a **landmark** year for solar-generated electricity in the UK - as well as for renewable energy more generally. In the current climate, in particular, we should commend this highly successful example of public policy-making. Since the Climate Change Act was passed ten years ago, some really impressive progress has been made. This very welcome figure is **deservedly** the RSS's 'UK Statistic of the Year' for 2018." **uncertain when you think about it".**

This statistic was nominated after appearing in a [Guardian](#) article, by Adam Vaughan, on 2nd July.

Sources: [Electric Insights \(28.7%\)](#), [Department for Business, Energy and Industrial Strategy](#) (30.5%).

HIGHLY COMMENDED STATISTICS - INTERNATIONAL

one claim of a
9.5: the percentage point reduction in worldwide 'absolute poverty' over the last ten years -
meaning that the proportion of those living in this condition has more than halved since 2008.
extreme

The negligence, incompetence or worse of the Royal Statistical Society is staggering. The claim "means" that some people are making a claim, not that the claim is true.

The claim about poverty is highly misleading, since the World Bank do not estimate changing needs. Matheson, Spiegelhalter, Easton and Chalabi do not in fact have evidence about "conditions" or "poverty" for their claim.

The ten years since the 'financial crash' are often characterised, in the West, as a decade of austerity, flat incomes and a protracted economic squeeze. But over the same period, huge numbers of people, worldwide, have escaped 'absolute poverty', as defined by the World Bank.

"nowcasts" ^{claimed} The Bank ^{calculated} that, in 2008, 18.1% of the global population was living in 'absolute ^{extreme} poverty'. It ^{predicts} that, by ~~the end of~~ this year, this proportion will have fallen to 8.6%.

Calling subjective judgments about needs "reality" is stupid in the extreme.

The judging panel was attracted to ^{these statistics} as they ^{show} the sharp contrast between Western perceptions and the worldwide economic ^{reality} over the 2008-²⁰¹⁸ period.

These statistics were nominated as a result of poverty's coverage in the 2018 book *Factfulness: Ten Reasons We're Wrong About the World and Why Things are Better Than You Think* by Hans Rosling, with Ola Rosling and Anna Rosling Rönnlund.

Mona Chalabi said: "Clearly, we cannot be complacent when so many people are still living in abject economic conditions. But ^{the halving} of 'absolute ^{poverty}', in a single decade, is a ^{stupendous} achievement. So far, we've heard very little about it. In the West, we've generally focused on the bleaker situation closer to home. But these statistics are ^{hugely significant} in global terms and ^{thoroughly deserve} their 'highly commended' status."

Sources: [World Bank \(2018\)](#), [World Bank \(2008\)](#)

64,946: the number of measles cases in Europe from November 2017 to October 2018.

Almost 65,000 measles cases were found in the European region of the World Health Organization (WHO) in the year from November 2017 to October 2018.

This is over twice the figure for 2017 as a whole (25,465); it also means that cases have risen over-15-fold from their 2016 level (4,240). Europe's experience forms part of a broader upward trend in measles cases on, disturbingly, a near-worldwide basis. It is believed that this stems from a combination of factors including collapsing health systems in some countries, complacency in several developed nations, scare stories about vaccines' safety, local vaccine shortage and [other factors](#). Measles can cause blindness, brain problems and even death, but is entirely preventable - leading to the judges' concern about the strong resurgence of the disease in 2018, as shown by this highly commended statistic.

A member of the judging panel, Ben Page, Chief Executive of Ipsos MORI, said: "The rise in fake-news regarding autism and measles has caused many parents to shun vaccination. We need to highlight that these claims are false and educate parents to prevent a possible measles epidemic."

Sources: [Economist](#), [World Health Organization](#)

40%: the percentage of Russian men who do not live to age 65 – the proposed state pension age.

This grim statistic came to prominence after Russia's Prime Minister Dmitry Medvedev announced that the state pension age for men would rise from 60 to 65 in the year 2028. This brought into sharp relief the current life expectancy figures: according to the most recent figures from the World Health Organization, only 60,084 out of every 100,000 Russian men are currently expected to live until 65. For comparative purposes, around 87% of UK men should live past 65, whilst around 79% of US men should do so.

There is no room for domestic complacency, however, because 2018 was also a year in which concerning statistics were published on stalling life expectancy in the UK and sharply contrasting 'healthy life expectancy' figures for different geographical areas.

The 40% statistic was nominated after stories about the rising pension age appeared in *The Times* (report by Matthew Bodner, 15th June), *Independent* (Tom Barnes, 17th June) and *Guardian* (Shaun Walker, 1st July).

Sources: [Times](#), [Independent](#), [Guardian](#), [World Health Organization](#)

\$1.3 billion: the amount wiped off Snapchat's value within a day of one Kylie Jenner tweet.



This statistic reflects the power social media influencers can have in 2018.

Before Kylie Jenner's tweet, Snapchat's share price stood at

\$18.64. By the close of trading the next day, its value had dropped 6.1% to \$17.51, which represented a fall of about \$1.3 billion in the company's value. This equates to \$14.8 million per character of her tweet. It is worth noting that a direct causal link cannot be proved. For example, Citigroup analyst Mark May had downgraded Snapchat's stock the day before the tweet, whilst Snapchat users were protesting against its new design before Kylie Jenner's widely shared comment.

Dr Liberty Vittert, lecturer in statistics at the University of Glasgow, and judging panel member, said: "Everyone grasps that social media is an incredible tool, yet trying to quantify its effect on the real-world economy is not so simple. Kylie Jenner's tweet influenced Snapchat's value at least - it could be known as 'The World's Most Costly Tweet'".

Sources: [Reuters](#), [CNBC](#), [Business Insider](#), [Guardian](#)

HIGHLY COMMENDED STATISTICS – UK

6.4%: the percentage of female executive directors within FTSE 250 companies.

Much attention has, rightly, focused on the gender pay gap during 2018. Indeed, in a move welcomed by the RSS, the UK became the first country to require, by law, medium and larger-sized employers to report on their gender pay gaps.

Various gender pay gap figures were duly considered by the judges. But they were struck more forcibly by some startling statistics - from a report by the Cranfield School of Management - about women's representation at senior levels within FTSE 250 companies. In October 2017, there were only 38 female executive directorships among such firms. But in June 2018, just before Cranfield's report was published, there were, astonishingly, even fewer - 30 - which took the proportion down to a mere 6.4%.

The judges were struck by both the tiny size of this figure and the year-on-year decline. The statistics are from Cranfield's *The Female FTSE Board Report 2018* and came to RSS's attention via an article by Anthony Hilton, in the *London Evening Standard*, on 15th November.

Dr Gemma Tetlow, Chief Economist at the Institute for Government, and a judging panel member, commented: “This statistic and others published this year highlight the importance of the lack of women in senior positions in driving the overall gap between men and women’s average pay in the UK. It shows how much further we, as a society, have to go until we reach true gender equality. This raises important questions about the culture of UK business and the responsibility that all those in positions of power have for ensuring women do not face additional barriers to getting into the top jobs.”

Sources: [London Evening Standard](#), [Cranfield](#)

85.9%: the proportion of British trains that ran on time - the lowest for more than a decade.

The judges considered several statistics which reflected the acute difficulties that many British rail users have experienced over the past year. The most robust figures were those on punctuality, recently produced by the Office for Road and Rail (ORR). According to the ORR, 1.9 million trains were planned to run between October 2017 and September 2018. Of these, 14.1% were classified as late as a result of arriving five minutes or more behind schedule, in the case of most train journeys, and ten or more minutes behind schedule if they were ‘long distance’ journeys. It was the industry’s worst punctuality performance since 2005-06. The ORR also found that 4.6% of trains were either ‘Cancelled’ or ‘Significantly Late’ - the highest proportion since 2001-02.

Dr Jennifer Rogers, an RSS Vice-President and judging panel member, said: “These statistics confirm what millions of passengers felt about 2017-18 as a result of their unhappy experiences on our railways. For example, cancellations and significant delays were at their worst level since the TV schedules included both *Big Breakfast* and *Big Break*. So these statistics show just how badly the British travelling public has been let down over the past year.”

Source: [Passenger and Freight Rail Performance 2018-19 Q2 Statistical Release](#), ORR

82%: the percentage of all GB retail shopping that is still in-store rather than online.

This figure shows that, as of August 2018, 82% of all GB retail spending was in-store expenditure. This may come as a surprise to some, as there have been multiple reports this year of stores closing or running into trouble, often seen as a result of higher internet sales. This is a recently published statistic from the ONS.

Professor Diane Coyle, an eminent economist and member of the judging panel, said: “With many well-known retailers hitting hard times, or even entering administration, this statistic came as a surprise. It shows that the vast majority of shopping is still done in-store, despite the well-publicised growth in online sales.”

Source: [Comparing “bricks and mortar” store sales with online retail sales: August 2018](#), ONS

16.7%: the percentage reduction in the number of Jaffa cakes in McVities’ Christmas tube.

The McVities Jaffa cakes festive tube, often known as ‘A Yard of Jaffa’, now consists of 40 cakes rather than 48 - a reduction of 16.7% since last year. The judges selected this statistic as it exemplifies the phenomenon of ‘shrinkflation’, when manufacturers shrink the size of their products but not the prices they charge. This issue first attracted the attention of the panel (and indeed, the Office for National Statistics) last year after numerous products - including, famously, Toblerone - had their weight, but not their prices, reduced.

In fairness to the manufacturer, it has now started to bill its product as a ‘cracker’ rather than a ‘yard’ of Jaffa cakes. Nevertheless, critics have commented on the extent of the boxes’ content-free

sections which, they say, makes the cut in the number of cakes less immediately obvious to the consumer.

Mark Easton, BBC Home Affairs Editor and judging panel member, commented: “‘Shrinkflation’ gives us an insight into behavioural economics. Manufacturers are finding we’re more likely to pay the same price for fewer goods than be persuaded to pay a bit more for the same number we received last year. Even so, it does sometimes feel like manufacturers are taking the biscuit – in this case, literally!”

The nomination was prompted by Imogen Blake’s article in *The Sun* on 9th November, and Ellen Scott’s article in the *Metro* on the same day. The phenomenon of ‘shrinkflation’ was also highlighted by *The Sunday Times* (9th December), after nominations had closed, in respect of products by Cadbury, Nestlé and Mars.

Sources: [The Sun](#), [Metro](#), [The Sunday Times](#)

CONTACTS

For further details, or additional comment from judges and spokespeople, please contact:

Daniel Lapedus, Media Relations & Public Affairs Manager:

d.lapedus@rss.org.uk, office: +44 (0)20 7614 3920, mobile: +44 (0) 7954366180

Iain Wilton, Director of Policy & Public Affairs:

i.wilton@rss.org.uk, mobile: +44 (0) 7941 049205

Amber Furnell, Education Officer

a.furnell@rss.org.uk, office: +44 (0)20 7614 3908 mobile: +44 (0) 7713956835

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