

Plastic Free July worldwide uptake

Date: 10 November 2021

Plastic Free July commissioned Ipsos to conduct a global survey

Published: Plastic Free July Foundation Ltd

Executive Summary

Plastic Free July recently commissioned the Melbourne office of Ipsos, a global research company, to undertake a global survey. The aim was to find out how aware and engaged people around the world were regarding the Plastic Free July challenge.

Between 20 August and 3 September 2021, 20,513 respondents from 28 countries around the globe participated in the online survey. Of those people:

- 26% were aware of the Plastic Free July challenge
- Of that 26%, 44% took part in 2021 (which is a small decline compared to 2018)
- Awareness amongst Australians (27%) was similar to the global average, as was the participation rate amongst those aware (45%)

Plastic Free July participation in each surveyed country was estimated using Global Advisor Survey results (1) combined with World Bank population data (2-3) and an estimation of the percentage of the adult population (being the more 'connected' middle class segment) that was sampled by Ipsos in each country (4).

The Ipsos data, combined with World Bank data shows that an estimated 140 million adults participated in Plastic Free July 2021 across 28 surveyed countries, including 2.1 million participants in Australia, 12.0 million in the USA, 3.1 million in the UK, 59.4 million in China and 18.7 million in India.

Although only 28 countries were surveyed, it's important to note that Plastic Free July had participants from 190 countries (5) of 217 countries recognised by the World Bank (2). The 28 countries surveyed do account for 59% of the global population. A global participation estimate, making the assumption that the sample is globally representative, is for 235 million global participants in Plastic Free July.

Methodology

Ipsos Global Advisor Survey

Ipsos was commissioned to undertake this survey for Plastic Free July. Interviews were conducted between August 20 and September 3, 2021 through the Ipsos Global Advisor survey. Surveys included the following questions:

Q1. Before today, had you heard about a challenge called Plastic Free July, which encourages people to refuse and reduce single-use plastics? (Yes/No)

If Q1 = Yes Q2a. Did you take part in Plastic Free July in 2021? (Yes/No)

If Q1 = Yes Q2b. Did you take part in Plastic Free July prior to 2021? (Yes/No)

The Ipsos Global Advisor survey instrument is conducted monthly in 28 countries around the world via the Ipsos Online Panel system. The countries reporting herein are Argentina, Australia, Belgium, Brazil, Canada, China, Chile, Colombia, France, Great Britain, Germany, Hungary, India, Italy, Japan, Malaysia, Mexico, Netherlands, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey and the United States of America.

The 20,513 participants were all aged between 18 and 74 in the US and Canada, Malaysia, South Africa and Turkey and between 16 and 74 years in all other countries. Most countries had more than 1,000 participants, producing a credibility interval accurate to +/- 3.5 percentage points.

For more information on the precision of online polls and how Ipsos uses credibility intervals, you can [visit the Ipsos website](#).

16 of the 28 countries surveyed online generate nationally representative samples in their countries (Argentina, Australia, Belgium, Canada, France, Germany, Great Britain, Hungary, Italy, Japan, the Netherlands, Poland, South Korea, Spain, Sweden, and United States).

Brazil, China, Chile, Colombia, India, Malaysia, Mexico, Peru, Russia, Saudi Arabia, South Africa and Turkey produce a national sample that is more urban & educated, and with higher incomes than their fellow citizens. Ipsos refers to these respondents as "More Connected Consumer Citizens". They are not nationally representative of their country.

Interpretation of the Survey by Plastic Free July

Professional services to interpret the Ipsos survey were provided by consulting Behavioural Economist Colin Ashton-Graham.

You'll find in Table 1 the results of the Ipsos Global Advisor Survey (1) combined with World Bank population data (2-3) and estimates of middle class ('connected') population (4) used to estimate Plastic Free July participation for each surveyed country.

To work out the estimated percentage of the adult population that participated in Plastic Free July in each country, responses to Question 1 and Question 2a were multiplied (Table 1, label d). For each country, the estimated percentage population of adult age (15-74 years) (Table 1, label f) was taken from World Bank population data (4).

The % of adult population covered by the Ipsos sample in each country was estimated from World Bank Regions data (Table 1, label k). In the 12 countries where respondents referred to by Ipsos as “More Connected Consumer Citizens” (and not nationally representative of their country), regional and developing country data from a World Bank Review (5) was used to provide an estimated percentage adult “middle class” population. World Bank education performance (5) was used to assign an Ipsos sample reach of between 80 and 90% to each of the 16 high income countries surveyed (the assumption being that an online survey instrument can reach and represent a majority, but not all of the population). These figures were then combined with the adult population count (Table 1, label g) to calculate relevant estimated population counts covered by the Ipsos sample in each country (Table 1, label l).

The best realistic estimation of Plastic Free July participants within each surveyed country were found by multiplying the estimate percentage of the adult population and the relevant estimated population count.

Plastic Free July participation estimates are based on the World Bank population estimates for persons aged 15 to 74 and the Ipsos samples of persons aged 16 to 74 (or 18 to 74 in US and Canada). This method assumes that the Ipsos survey results would be unchanged had persons aged 15 been included in the 'adult sample' (and persons aged 15 to 17 in US and Canada).

Estimating future participation based on registration data

Participants are encouraged to [officially register for the challenge](#) at the Plastic Free July website. Widespread sharing of the campaign online globally, through the media and social media, and through individuals and organisations has seen more and more people take on the challenge, without necessarily officially registering online for the Plastic Free July challenge (especially in countries outside Australia).

In other words, knowing how many people participate in Plastic Free July each year isn't as simple as checking who is registered. This was reflected in a baseline survey of the general Western Australian population conducted in February 2017. It found that for every person registered to do the Plastic Free July challenge, 64 unregistered participants were also doing it. This ratio has developed significantly since then.

The number of Plastic Free July registrations within the countries surveyed (Table 1, label a), combined with the estimated participation of adult persons (Table 1, label m) shows us what that ratio looks like now. It can also help with future tracking to understand and

estimate what actual participation in Plastic Free July looks like around the world (even without everyone registering online).

Comparison with previous estimates of global participation in Plastic Free July

A number of changes to the methodology result in the 2021 estimate of global participation in Plastic Free July being not directly comparable with previous estimates because:

- The estimate for participation in 2018 was based on global survey and population data for a narrower age range of 15 to 64 years and for a sample of 26 countries
- The estimates for participation in 2019 and 2020 were modelled by tracking the direct sign up count and assuming no change in the 2018 ratio of participants per direct sign up (the 2021 global survey suggesting that the ratio has changed and the 2019 and 2020 estimates were not reliable).

The 2021 estimate, of 140 million participants across a sample of 28 countries, provides the most robust available measure of participation in Plastic Free July.

Data sources

1. Ipsos Global Advisor Results – October 2021
2. World Bank data: total population count (all ages)
<https://data.worldbank.org/indicator/SP.POP.TOTL>
3. World Bank data: estimated percentage population adult age (15-74 years)
<https://databank.worldbank.org/reports.aspx?source=2&series=SP.POP.65UP.TO.ZS&country=#advancedDownloadOptions>
4. World bank data: estimated percentage of middle class ('upper deck') population (pages 4 & 6) <http://www.worldbank.org/content/dam/Worldbank/document/MIC-Forum-Rise-of-the-Middle-Class-SM13.pdf>
5. Plastic Free July registrations came from 212 countries. Plastic Free July database of sign-ups (accessed 31/07/2021)

Technical Note

Plastic Free July commissioned global research company Ipsos to undertake this survey. The survey results are based on 20,513 respondents in 28 countries conducted online by Ipsos. The fieldwork was conducted between 20 August and 3 September 2021. Data are weighted to a nationally representative profile in each country. The 'Global Country Average' reflects the average result for all the countries and markets where the survey was conducted. It has not been adjusted to the population size of each country or market and is not intended to suggest a total result.

TABLE 1 - Plastic Free July 2021 Participation results (derived from the Global Advisor Survey)

	PFJ data	Global survey 2021 ***				World Bank Data 2021			Calculations with data		sample	Best estimate of PFJ Participating count			
LABELS	a	b	c	d	e	f	g	h	i	j	k	l	m		
Country *	PFJ Signups as at 31 July 2021 **	Q1 % of adult pop aware of PFJ	Q2 % of aware who participated in 2021	Estimated % of adult pop participating (b x c)	Total popn count all ages	% popn adult age (16 to 74 yrs)	adult popn count (e x f)	Estimated PFJ participation count (d x g)	Ratio of estimated participation per PFJ registration (h / a)	20,513 adults across 28 countries, but some country samples are only from educated urban ('connected')	Estimated % of adult population sampled by IPSOS (i.e. % middle class as estimated by PFJ from World Bank Regions data)	Relevant estimated popn count (i.e. 'connected') (g x k)	Realistic estimated PFJ Participation count (d x l)	realistic Ratio of estimated participation per PFJ registration (m / a)	
Argentina	307	16%	31%	5.0%	45,376,760	71%	32,126,746	1,593,487	5,191		80%	25,701,397	1,274,789	4,152	
Australia	30,309	27%	45%	12.2%	25,678,040	74%	18,899,037	2,296,233	76		90%	17,009,134	2,066,610	68	
Belgium	359	20%	38%	7.6%	11,556,000	74%	8,551,440	649,909	1,810		90%	7,696,296	584,918	1,629	
Brazil	525	17%	32%	5.4%	212,559,410	76%	160,907,473	8,753,367	16,673	Connected' sample	40%	64,362,989	3,501,347	6,669	
Canada	3,615	10%	35%	3.5%	38,005,240	77%	29,112,014	1,018,920	282		90%	26,200,812	917,028	254	
China	106	55%	49%	27.0%	1,402,112,000	79%	1,102,060,032	297,005,179	2,801,936	Connected' sample	20%	220,412,006	59,401,036	560,387	
Chile	171	25%	47%	11.8%	19,116,210	76%	14,490,087	1,702,585	9,957	Connected' sample	30%	4,347,026	510,776	2,987	
Colombia	180	16%	52%	8.3%	50,882,880	74%	37,856,863	3,149,691	17,498	Connected' sample	30%	11,357,059	944,907	5,249	
France	709	16%	35%	5.6%	67,391,580	73%	49,061,070	2,747,420	3,875		90%	44,154,963	2,472,678	3,488	
United Kingdom	14,597	15%	47%	7.1%	67,215,290	74%	49,470,453	3,487,667	239	IPSOS sampled GB	90%	44,523,408	3,138,900	215	
Germany	1,442	13%	41%	5.3%	83,240,520	75%	62,180,668	3,314,230	2,298		90%	55,962,602	2,982,807	2,069	
Hungary	1,403	45%	27%	12.2%	9,749,760	77%	7,536,564	915,693	653		80%	6,029,252	732,554	522	
India	1,400	62%	61%	37.8%	1,380,004,390	72%	990,843,152	374,736,880	267,669	Connected' sample	5%	49,542,158	18,736,844	13,383	
Italy	1,331	37%	28%	10.4%	59,554,020	75%	44,784,623	4,639,687	3,486		80%	35,827,698	3,711,750	2,789	
Japan	519	21%	15%	3.2%	125,836,020	73%	91,860,295	2,893,599	5,575		90%	82,674,265	2,604,239	5,018	
Malaysia	197	59%	68%	40.1%	32,366,000	74%	24,047,938	9,648,033	48,975	Connected' sample	20%	4,809,588	1,929,607	9,795	
Mexico	782	17%	56%	9.5%	128,932,750	76%	97,602,092	9,291,719	11,882	Connected' sample	20%	19,520,418	1,858,344	2,376	
Netherlands	704	19%	39%	7.4%	17,441,140	76%	13,202,943	978,338	1,390		90%	11,882,649	880,504	1,251	
Peru	109	18%	48%	8.6%	32,971,850	72%	23,706,760	2,048,264	18,791	Connected' sample	10%	2,370,676	204,826	1,879	
Poland	306	20%	49%	9.8%	37,950,800	77%	29,373,919	2,878,644	9,407		80%	23,499,135	2,302,915	7,526	
Russia	167	26%	31%	8.1%	144,104,080	76%	108,942,684	8,780,780	52,580	Connected' sample	20%	21,788,537	1,756,156	10,516	
Saudi Arabia	36	31%	35%	10.9%	34,813,870	74%	25,831,892	2,802,760	77,854	Connected' sample	60%	15,499,135	1,681,656	46,713	
South Africa	1,201	27%	56%	15.1%	59,308,690	70%	41,219,540	6,232,394	5,189	Connected' sample	20%	8,243,908	1,246,479	1,038	
South Korea	172	48%	42%	20.2%	51,780,580	81%	41,838,709	8,434,684	49,039		80%	33,470,967	6,747,747	39,231	
Spain	776	17%	54%	9.2%	47,351,570	76%	35,750,435	3,281,890	4,229		80%	28,600,348	2,625,512	3,383	
Sweden	189	19%	31%	5.9%	10,353,440	73%	7,537,304	443,947	2,349		90%	6,783,574	399,553	2,114	
Turkey	265	32%	41%	13.1%	84,339,070	73%	61,314,504	8,044,463	30,356	Connected' sample	30%	18,394,351	2,413,339	9,107	
United States of America	17,824	13%	47%	6.1%	329,484,120	75%	246,124,638	15,038,215	844		80%	196,899,710	12,030,572	675	
TOTALS Weighted for Middle class population		28.8%	42.1%	12.8%							31.5%	1,087,564,061	139,658,393	1,752	
TOTALS Unweighted	79,701	26%	44%	11.4%	4,609,476,080	75%	3,456,233,876	786,808,679							
Globally (weighted) ****	105,035			12.8%	7,752,840,550		5,813,161,774				31.47%	1,829,212,390	234,896,382	2,236	
* Countries marked in orange indicate respondents who are more urban and middle class ("Connected Consumer Citizens") who are not nationally representative of their country													Best PFJ participation estimate in number of adult persons	Best ratio for future tracking of direct sign ups as a sample of true participation to use in years where a global survey is not available. Lower ratio if using direct plus socials, events and places)	
** Not all direct PFJ sign-ups are attributed to a country because country of sign-up wasn't a required field until 2016.															
*** Ipsos was commissioned by Plastic Free July to undertake the survey															
**** The measures of PFJ reach, and the demographics of the global sample of 28 countries, are taken to be representative of the middle class segment of the whole global population of 7.75 billion people.															