

IPSOS / REUTERS POLL DATA Prepared by Ipsos Public Affairs

Ipsos Poll Conducted for Reuters

Airlines Poll 6.30.2017

These are findings from an Ipsos poll conducted June 22-29, 2017 on behalf Thomson Reuters. For the survey, a sample of roughly 2,316 adults age 18+ from the continental U.S., Alaska and Hawaii was interviewed online in English.

The sample for this study was randomly drawn from Ipsos's online panel (see link below for more info on "Access Panels and Recruitment"), partner online panel sources, and "river" sampling (see link below for more info on the Ipsos "Ampario Overview" sample method) and does not rely on a population frame in the traditional sense. Ipsos uses fixed sample targets, unique to each study, in drawing sample. After a sample has been obtained from the Ipsos panel, Ipsos calibrates respondent characteristics to be representative of the U.S. Population using standard procedures such as raking-ratio adjustments. The source of these population targets is U.S. Census 2013 American Community Survey data. The sample drawn for this study reflects fixed sample targets on demographics. Post-hoc weights were made to the population characteristics on gender, age, race/ethnicity, region, and education.

Statistical margins of error are not applicable to online polls. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. Where figures do not sum to 100, this is due to the effects of rounding. The precision of Ipsos online polls is measured using a credibility interval. In this case, the poll has a credibility interval of plus or minus 2.3 percentage points for all respondents. Ipsos calculates a design effect (DEFF) for each study based on the variation of the weights, following the formula of Kish (1965). This study had a credibility interval adjusted for design effect of the following (n=2,316, DEFF=1.5, adjusted Confidence Interval=3.8).

For more information about conducting research intended for public release or Ipsos' online polling methodology, please visit our <u>Public Opinion Polling and Communication</u> page where you can download our brochure, see our public release protocol, or contact us.

		<u>Total</u>
TM1244Y17 - Generally speaking, do you like or dislike traveling for personal reasons (that is, not for work)?	Like traveling a lot	52%
	Like traveling a little	25%
	Neutral	13%
	Dislike traveling a little	5%
	Dislike traveling a lot	4%
	Don't know	1%
	Total	2316
TM1245Y17 - And do you like or dislike traveling for personal reasons (that is, not for work) by air?	Like traveling by air a lot	33%
	Like traveling by air a little	23%
	Neutral	19%
	Dislike traveling by air a little	7%
	Dislike traveling by air a lot	13%
	Don't know	5%
	Total	2316
TM1246Y17 - About how often, if at all, do you travel by air for personal reasons (not for work)?	Weekly	1%
	A few times a month	2%
	Once a month	2%
	A few times a year	22%



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	Once a year	35%
	Never	37%
	Total	2316
		201
	United	8%
	American	9%
	JetBlue	4%
	Southwest	19%
TM1247Y17 - Thinking of airlines	Frontier	1%
operating in the United States, which of	Delta	13%
the following, if any, is your preferred	Virgin America	2%
airline for personal travel?	Alaska Airlines	4%
	Spirit Air	1%
	Other	2%
	I don't have a preferred airline	37%
	Total	2316
	Ticket price	57%
	Total travel time	5%
	Airline	5%
	The number of stops to get to	17%
	my destination	12/0
TM1248V17 - When nurchasing an airline	My preferred destination	1%
ticket for personal travel, which factor	airport	470
holow is most important to you?	My preferred origin airport	3%
below is most important to you:	Availability of priority seating,	2%
	business class, or first class	270
	Ability to purchase ticket with	20/
	reward travel / miles	370
	Other	8%
	Total	2316
TM1249Y17_1 - And what other factors	No	74%
are very important when purchasing an	Yes	26%
airline ticket for personal travel Ticket	Total	2316
price?	10001	2310
		6 M /
TM1249Y17_2 - And what other factors	No	64%
are very important when purchasing an	Yes	36%
airline ticket for personal travel Total	Total	2316
travel time?		
TN11210V17 2 And what ather factors	No	949/
INIT74911/_3 - Alig Must other lactors	NO	84%
are very important when purchasing an	Yes	
airline ticket for personal travel Airline?	Iotal	2316
TN11210V17 1 And what ather factors	No	62%
INIT 24911/_4 - Alia Milat Other Lactors	NO	52% 28%
are very important when purchasing an	Yes	38%
airline ticket for personal travel The	Total	2316
number of stops to get to my destination?		

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TM1249Y17_5 - And what other factors	Yes	18%
airline ticket for personal travel My preferred destination airport?	Total	2316
TM1249Y17 6 - And what other factors	No	83%
are very important when purchasing an	Yes	17%
airline ticket for personal travel My preferred origin airport?	Total	2316
TM1249Y17 7 - And what other factors	Νο	93%
are very important when purchasing an	Yes	7%
airline ticket for personal travel		
Availability of priority seating, business class, or first class?	Total	2316
TM1249Y17 8 - And what other factors	No	91%
are very important when purchasing an	Yes	9%
airline ticket for personal travel Ability		
to purchase ticket with reward travel / miles?	Total	2316
TM1249Y17_9 - And what other factors	No	99%
are very important when purchasing an	Yes	1%
factor?	Total	2316
	Window seat	52%
TM1250Y17 - When traveling by air for	Middle seat	3%
personal reasons, which of the following	Aisle seat	24%
seat options do you prefer?	I don't have a seat preference	21%
	Total	2316
		50/
TM1251Y17 - Thinking now about	Yes – a lot more	5% 20%
planning personal travel, are you typically willing to pay more for a plane ticket with your preferred airline?	No	52%
	Don't Know	13%
	Total	2316
TM1252V17 - Thinking now about	Yes – a lot more	5%
planning personal travel are you typically	Yes – a little more	23%
willing to pay more for a seat that isn't a 'middle' seat?	No	60%
	Don't Know	11%
	Total	2316
	Security is too intensive at most	
	airports	17%
	There is an appropriate amount	
TM1253Y17 - Which of the below best describes security at airports?	of security at most airports	54%
	Security is too light at most	17%
	airports	12/0
	Don't know	17%



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	Total	2316
	Very well	12%
	Somewhat well	36%
TM1254Y17 - How well do you feel you	Not very well	30%
know your rights as an airline passenger?	Not at all well	12%
	Don't Know	12%
	Total	2316
	Airlines prioritize passenger	20%
	safety over profits	20%
TM1255Y17 - Which of the statements	Airlines prioritize profits over	52%
comes closer to your personal opinion?	passenger safety	55%
	Don't know	27%
	Total	2316
	No minimum (the airline	2%
	shouldn't have to pay anything)	270
TM1256Y17 - Some airlines 'overbook'	The cost of the ticket	9%
planes on the assumption that some	Twice the cost of the ticket	31%
passengers will not show up. In your	Five times the cost of the ticket	23%
opinion, how much should airlines offer	The passenger should be able	
passengers to give up their seat	to negotiate their	24%
voluntarily on an overbooked flight?	compensation	
	Don't know	12%
	Total	2316
	Very low	1%
	Somewhat low	9%
TM1257Y17 - Right now, do you consider airline ticket prices to be ?	Somewhat high	48%
	Very high	25%
	Don't know	16%
	Total	2316
TM1258Y17 - How much do you think airlines care about their customers?	Very much	10%
	Somewhat	34%
	A little	33%
	Not at all	15%
	Don't know	8%
	Total	2316



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How to Calculate Bayesian Credibility Intervals

The calculation of credibility intervals assumes that Y has a binomial distribution conditioned on the parameter θ \, i.e., Y| θ ~Bin(n, θ), where n is the size of our sample. In this setting, Y counts the number of "yes", or "1", observed in the sample, so that the sample mean (\overline{y}) is a natural estimate of the true population proportion θ . This model is often called the likelihood function, and it is a standard concept in both the Bayesian and the Classical framework. The Bayesian ¹ statistics combines both the prior distribution and the likelihood function to create a posterior distribution. The posterior distribution represents our opinion about which are the plausible values for θ adjusted after observing the sample data. In reality, the posterior distribution is one's knowledge base updated using the latest survey information. For the prior and likelihood functions specified here, the posterior distribution is also a beta distribution ($\pi(\theta/y)^{\alpha}\beta(y+a,n-y+b)$), but with updated hyper-parameters.

Our credibility interval for ϑ is based on this posterior distribution. As mentioned above, these intervals represent our belief about which are the most plausible values for ϑ given our updated knowledge base. There are different ways to calculate these intervals based on $\pi(\theta/y)$. Since we want only one measure of precision for all variables in the survey, analogous to what is done within the Classical framework, we will compute the largest possible credibility interval for any observed sample. The worst case occurs when we assume that a=1 and b=1 and y=n/2. Using a simple approximation of the posterior by the normal distribution, the 95% credibility interval is given by, approximately:



For this poll, the Bayesian Credibility Interval was adjusted using standard weighting design effect 1+L=1.3 to account for complex weighting²

Examples of credibility intervals for different base sizes are below. Ipsos does not publish data for base sizes (sample sizes) below 100.

Credibility intervals
2.5
2.9
3.5
4.1
5.0
6.0
7.9
11.2