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Science and Scientists Held in High Esteem Across Global Publics

Yet there is ambivalence in many publics over developments in AI, workplace automation, food science

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How we did this

This report examines cross-national perceptions of science and its place in society along with attitudes on a number of science-related issues.

Data in this report come from a survey conducted across 20 publics from October 2019 to March 2020 across Europe, Russia, the Americas and the Asia-Pacific region. The surveys were conducted by face-to-face interviews in Russia, Poland, the Czech Republic, India and Brazil. In all other places, the surveys were conducted by telephone. All surveys were conducted with representative samples of adults ages 18 and older in each survey public.

Here are the <u>questions</u> used for the report, along with responses, and the survey <u>methodology</u>.

Science and Scientists Held in High Esteem Across Global Publics

Yet there is ambivalence in many publics over developments in AI, workplace automation, food science

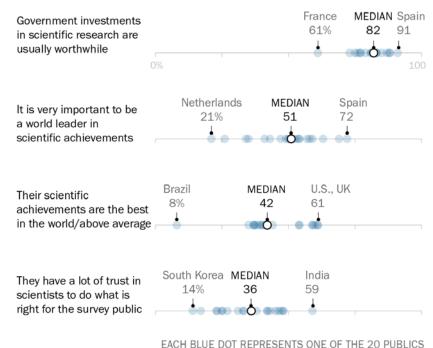
As publics around the world look to scientists and the research and development process to bring new treatments and preventive strategies for the novel coronavirus, a new international survey finds scientists and their research are widely viewed in a positive light across global publics, and large majorities believe government investments in scientific research yield benefits for society.

Still, the wide-ranging survey, conducted before the <u>COVID-</u> <u>19 outbreak</u> reached pandemic proportions, reveals ambivalence about certain scientific developments – in areas such as artificial intelligence and genetically modified foods – often exists alongside high trust for scientists generally and positive views in other areas such as space exploration.

Public concerns around climate change and environmental degradation remain widespread. In most publics, majorities view climate change as a very serious problem, say their government is not doing enough to address it and point to a host of environmental concerns at home, including air and water quality and pollution.

Most value government investment in scientific research, being a world leader in science

% who say ...



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q2d, Q4a, Q7, Q9a. "Science and Scientists Held in High Esteem Across Global Publics"

With renewed attention to the importance of public acceptance of vaccines, the new survey finds majorities in most publics tend to view childhood vaccines, such as those for measles, mumps and rubella, as relatively safe and effective. Yet sizable minorities across global publics hold doubts about this keystone tool of modern medicine.

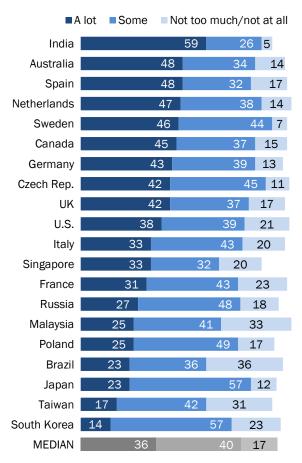
The international survey, fielded in publics across Europe, the Asia-Pacific region, and in the United States, Canada, Brazil and Russia finds broad agreement about the value of scientific research. A median of 82% consider government investment in scientific research worthwhile, and majorities across places view it as important to be a leader in scientific achievements.

The Center survey sheds light on how publics see the place of science in society amid the changing global landscape for scientific research and innovation. The U.S. had the largest share of global spending on research and development in the past, but recent years have seen greater investments by Taiwan, South Korea and mainland China. China is expected to equal or exceed the U.S. in global R&D investments in the coming years, according to data collected by the Organization for Economic Cooperation and Development. ¹

Scientists as a group are highly regarded, compared with other prominent groups and institutions in society. In all publics, majorities have at least some trust in scientists to do what is right. A median of 36% have "a lot" of trust in scientists, the same share who say this about

Majorities have at least some trust in scientists to do what is right

% who say they have ____ trust in scientists to do what is right for (survey public)



Note: Respondents who did not give an answer are not shown. Source: International Science Survey 2019-2020. Q2d. "Science and Scientists Held in High Esteem Across Global Publics"

¹ For more, see the Science and Engineering Indicators: <u>Research and Development: U.S. Trends and International Comparisons</u>, Mark Boroush, National Science Board and National Science Foundation, January 2020, or <u>Benchmarks 2019</u>: <u>Second Place America? Increasing</u> <u>Challenges to U.S. Scientific Leadership</u>, Report by the American Task Force on Innovation, May 2019.

the military, and much higher than the shares who say this about business leaders, the national government and the news media.

Still, an appreciation for practical experience, more so than expertise, in general, runs deep across publics. A median of 66% say it's better to rely on people with practical experience to solve pressing problems, while a median of 28% say it's better to rely on people who are considered experts about the problems, even if they don't have much practical experience.

The publics' assessments of their own achievements in science do not always measure up to their aspirations: A median of 42% say their scientific achievements are above average or the best in the world. However, the shares holding this view ranges from 8% in Brazil to 61% each in the U.S. and United Kingdom.

And in many places, the public sees room for improvement when it comes to education at the university or primary and secondary school levels in science, technology, engineering and mathematics (STEM). A median of 42% rate university STEM education in their survey public as above average or the best in the world, and a smaller median of 30% give high marks to their science, technology, engineering and math education at the primary and secondary school level.

These are among the chief findings from the survey conducted among <u>20 publics</u> with sizable or growing investments in scientific and technological development from across Europe (the Czech Republic, France, Germany, Italy, the Netherlands, Poland, Spain, Sweden and the United Kingdom), the Asia-Pacific region (Australia, India, Japan, Malaysia, Singapore, South Korea and Taiwan) as well as Russia, the United States, Canada and Brazil.

Public trust in scientists is often higher for those on the left than the right of the political spectrum

While there is generally a positive tilt toward public trust in scientists, trust often varies with ideology. In general, those on the left express more trust in scientists than those on the right.

Such differences are especially pronounced in the U.S., where fully 62% of those on the left have a lot of trust in scientists, compared with two-in-ten of those on the right. (The gap is similar factoring in party identification; 67% of liberal Democrats in the U.S. say they have a lot of trust in scientists, compared with 17% of conservative Republicans.)

Left-right divides are also present in a number of other places. In Canada, for instance, 74% of those who place themselves on the left say they have a lot of trust in scientists to do what is right, compared with 35% of Canadians with right-leaning political views.

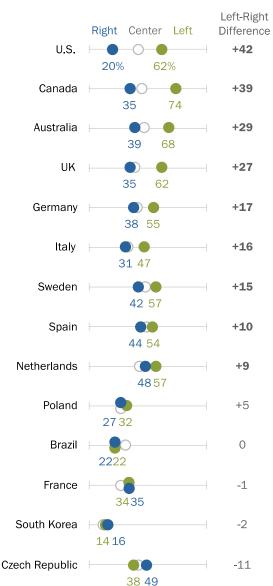
In the UK, there's a 27 percentage point difference between the shares of those on the left and right who have a lot of trust in scientists. Germany (by 17 points), Sweden (15 points) and Spain (10 points) are among the other places where those on the left are more trusting of scientists than those on the right.

Consistent with this ideological pattern, those with favorable views of right-wing populist parties in Europe tend to express lower levels of trust in scientists than those with unfavorable views of these parties.

However, differences by political ideology do not strongly extend to other views of scientists or experts. For instance, there are generally modest or no left-right differences in views of whether scientists tend to make judgments based solely on the facts or are just as likely to be biased as other people. And in most places, there's general agreement across the political spectrum that, when it comes to solving pressing problems, it is better to rely on people with practical experience than on people with expertise. A median of two-thirds say it is better to rely on people with practical experience, while a median of 28% say it is better to rely on people with expertise, even if they don't have practical experience.

Those on the political right often less trusting of scientists than those on left

% who trust scientists **a lot** to do what is right for (survey public)



Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q2d. "Science and Scientists Held in High Esteem Across Global Publics"

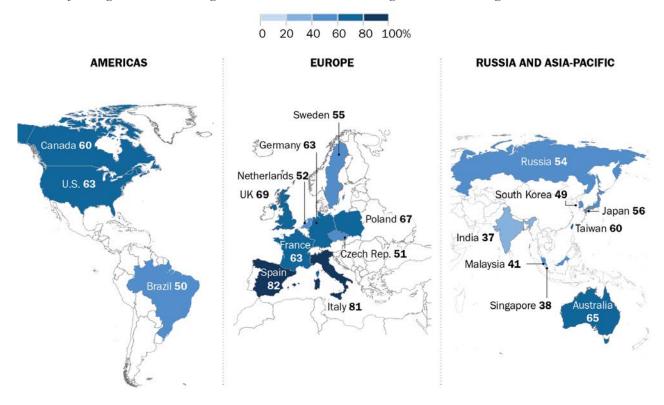
Amid rising concern about global climate change, most see at least some impact from climate change where they live and say their government is doing too little to address it

International concern about climate change has increased over the past several years, with growing shares viewing climate change as a <u>major threat</u>. In addition, large majorities in the current survey express worry over climate change and describe it as a serious problem.

A median of seven-in-ten across the set of 20 publics say climate change is having at least some effect on their local community. And in some places – Italy, Spain and Brazil – about half or more see a *great deal* of impact from climate change in their community. Government action on climate change is widely seen as lacking: Majorities across most of surveyed publics believe their government is doing too little to address climate change (20-public median of 58%).

In most publics surveyed, half or more say there is a need for more government action on climate

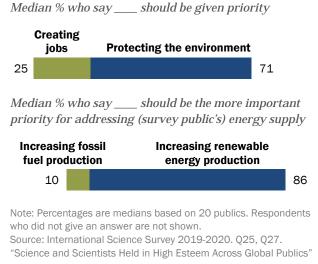
% who say their government is doing too little to reduce the effects of global climate change



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q30. "Science and Scientists Held in High Esteem Across Global Publics"

Across the 20 publics surveyed, environmental concerns extend beyond the issue of climate change: Large majorities rate a host of environmental issues as big problems, including air and water pollution, overburdened landfills, deforestation and the loss of plant and animal species. In general terms, environmental concerns trump economic considerations: When asked to choose, a median of 71% said environmental protection should be the greater priority even if it caused slower economic growth and loss of jobs; a much smaller median of 25% said creating jobs should be the priority (the survey was conducted before the coronavirus pandemic and resultant economic strains took hold in many of these publics).

Most prioritize environmental protection, increasing renewable energy



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Consistent with environmental worries, majorities across all 20 publics say the more important energy priority should be increasing production of renewable energy such as wind and solar sources over increasing production of oil, natural gas and coal (median of 86% to 10%). Views about specific energy sources underscore this pattern with strong majorities in favor of expanding the use of wind, solar and hydropower sources and much less support, by comparison, for energy sources such as oil or coal. Views on expanding natural gas fall somewhere in between.

Public views about climate, environment and energy issues are strongly linked with political ideology. For example, those who place themselves on the political left are more inclined to see climate change as a serious problem and to think their government is doing too little to address it than those on the right; these differences are particularly wide in the U.S., Australia, Sweden, Canada, the UK and the Netherlands.

There is little consensus across regions in views of artificial intelligence, automation in the workplace

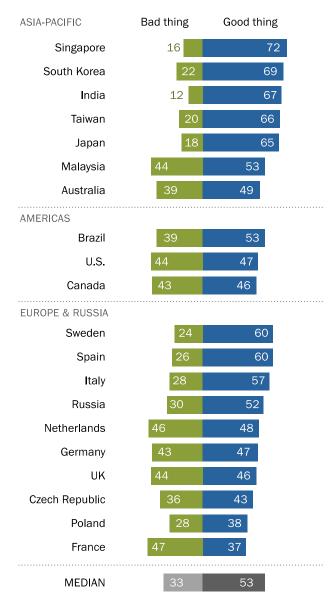
Public views of artificial intelligence, described for survey respondents as computer systems designed to imitate human behaviors, are generally viewed positively by publics in the Asia-Pacific region. A median of two-thirds in the Asia-Pacific say that AI has been a good thing for society, while a median of 20% say it has been a bad thing. Elsewhere public views are mixed. In Europe a median of 47% say the development of AI has been good for society. Roughly half view AI positively in Brazil (53%), Russia (52%), the U.S. (47%) and Canada (46%).

Opinions about the impact of robotics to automate jobs also are mixed. A median of 48% say such automation has mostly been a good thing, while 42% say it has been a bad thing. As with views of AI, assessments of job automation are generally more positive in the Asia-Pacific region (median of 61% say it's been a good thing). Fewer in Europe (a median of 48%) share this positive view. Those in France (35%), Spain (37%) and Brazil (29%) are among the least likely to say robots and automation in the workplace has been a good thing for society. In the U.S., slightly more say this type of automation has been bad than good for the country (50% vs. 41%).

Across places surveyed, those with higher levels of education and who have taken more science courses in their schooling are especially likely to consider AI and workplace automation as a

Public views of Al's impact on society are often mixed

% who say the development of artificial intelligence has mostly been a _____ for society



Note: Respondents who did not give an answer are not shown. Source: International Science Survey 2019-2020. Q11b. "Science and Scientists Held in High Esteem Across Global Publics"

positive development for society. Views tend to be less positive among those with lower levels of education.

Among the reports' other major findings:

- Many see childhood vaccines as bringing high preventive health benefits but some doubts about safety and effectiveness remain. A majority of adults in 17 of the 20 publics rate the preventive health benefits from childhood vaccines - such as the measles, mumps and rubella vaccine - to be high. But there are only a handful of publics - Sweden, Spain and Australia - where about eight-in-ten or more are convinced of the high preventive health benefits. Smaller majorities take this view in other places, including Italy, the Netherlands and Singapore. And while most places consider the risk of side effects from childhood vaccines to be low, half or more in Japan, Malaysia, Russia, South Korea, France and Singapore consider the risk to be medium or high. Those who identify on the political right, or who have a favorable view of a right-wing populist party in Europe, are less likely to see the preventive health benefits of such vaccines as high or the risk of side effects to be low or none. These differences are particularly large in the Netherlands, UK and France.
- There are widespread concerns about the safety of genetically modified foods in many of these publics. Larger shares believe foods with genetically modified (GM) ingredients are *unsafe* to eat than say they are safe (20-public median of 48% vs. 13%). Though familiarity with GM foods is not always high: A median of 37% say they don't know enough about such foods to say. Health risks also are seen in produce grown with pesticides and

Many publics give positive marks for handling the coronavirus outbreak

The coronavirus pandemic altered the lives of people around the world. Governments applied a myriad of approaches in <u>response to the outbreak</u>, and the scope of the health crisis varied widely.

A separate <u>Pew Research Center survey</u> conducted June to August of 2020 in 14 countries found a median of 73% think their country has done a good job handling the novel coronavirus. Strong majorities in Denmark, Germany, Canada, Australia, the Netherlands and South Korea hold this view as do at least seven-in-ten in Italy and Sweden. In Japan 55% give their country positive marks. In the UK, U.S. and Spain, ratings are more divided, with wide differences of opinion across political or ideological groups about their country's handling of the outbreak.

More think their country has done a bad job handling the outbreak in places with higher counts of <u>coronavirus-related</u> <u>fatalities</u>. Similarly, the share who say their country is more divided than before the outbreak is strongly related to the number of cases and deaths from the disease. The U.S. stands out on this measure with 77% of Americans saying the outbreak has further divided the nation.

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food and drinks with artificial preservatives. Women are more likely than men to express safety concerns about all three food groups.

• Many give science news coverage positive marks but cite lack of public understanding as a problem for science coverage. Overall, a median of 68% say the news media do a very or somewhat good job covering science; 28% say they generally do a bad job. Publics generally agree about one issue with the news, however: Majorities across 18 of the 20 publics say that limited public understanding is a problem for coverage of scientific research. Far fewer consider media oversimplifying findings or researchers overstating their findings to be a problem for coverage of research.

1. Scientists are among the most trusted groups in society, though many value practical experience over expertise

Across the 20 places surveyed, there is relatively high trust in the military and scientists to do what is right for the public; trust tends to be lower in the national government, news media and business leaders, by comparison. Education and political ideology often play a role in people's assessments of scientists, with highly educated people and those on the political left tending to express more trust in scientists than those with lower levels of education and those on the political right.

While political ideology, including views of right-wing populist parties, is often correlated with trust in scientists, it has only a modest connection with general views about whether scientists' judgments are based solely on the facts or as likely to be biased as those of other people. In general terms, about half to three-quarters across all of these publics think it is better to rely on people with practical experience to solve pressing problems in society than to rely on those with expertise. Public skepticism of relying on experts, generally, is widely shared across those on the right and left.

Public trust in the news media is considerably lower than that for scientists in most places surveyed. However, majorities in 18 of the 20 survey publics give the media positive marks for their science news coverage. Further, majorities in most of these publics agree on at least one problem about the news: The general public doesn't know enough about science to really understand coverage of scientific research.

Public trust in scientists rivaled that in the military at the onset of the pandemic

Majorities across publics say they have either a lot of trust or some trust in scientists to do what is right for the public. A 20-public median of 36% express the strongest level of trust in scientists to do what is right. Relatively few across most survey publics say they have not too much or no trust in scientists to do what's right.

Overall, views of the military are similarly positive. In nearly all places, majorities have at least some trust in the military to do what is right for the public, and a median of 36% have a lot of trust (the same median as for trust in scientists).

However, the relative standing of trust in the military and scientists varies from place to place. In eight of the places surveyed, the military is more trusted than scientists, including in India, the U.S. and Russia. By contrast, in six publics – all in Europe, including the Netherlands, Sweden and

Germany – greater shares have a lot of trust in scientists than in the military to do what is right. In five publics, no one group is trusted more than another, and trust in the military and scientists tends to be about the same. For example, 46% of Australians say they trust the military a lot, while 48% have a lot of trust in scientists.

Singaporeans stand out for comparatively high trust in their national government to do what is right for the country: 54% have a lot of trust in the national government, and the same share has a lot of trust in the military. By comparison, a third in Singapore have a lot of trust in scientists. (The language used to describe the national government varied modestly across survey publics; see topline for more details.)

In the large majority of publics surveyed, trust in the national government, news media and business leaders tends to be lower than that for the military and for scientists. Medians of roughly one-in-ten have a lot of trust in each of these groups and institutions to do what is right. And, the share with a negative view of each group is often sizable. For example, the share who report not too much or no trust in the news media to do what is right on behalf of the public is as high as 75% in France and 69% in South Korea.

Relatively high trust in the military, scientists across surveyed publics

% who trust each group **a lot** to do what is right for (survey public)

U	Ĩ	Military	Scientists	National government	News media	Business leaders
Publics with more	India	80%	59%	44%	33%	22%
trust in the military than the other	U.S.	56	38	8	13	11
groups/institutions shown	Malaysia	52	25	22	23	24
SHOWN	Canada	48	45	14	15	7
	UK	47	42	10	5	9
	Russia	44	27	22	14	11
	France	38	31	7	5	4
	Japan	32	23	5	6	4
Publics that trust	Singapore	54	33	54	24	27
two or more groups/institutions	Australia	46	48	13	8	7
about equally	Poland	27	25	14	10	6
	Brazil	21	23	9	12	4
	Taiwan	18	17	16	5	11
	South Korea	14	14	12	3	5
Publics with more trust in	Spain	37	48	8	12	9
scientists than	Netherlands	35	47	15	14	11
the other groups/	Sweden	30	46	10	17	11
institutions	Germany	25	43	14	13	11
shown Cz	ech Republic	29	42	8	10	8
	ltaly	28	33	4	6	3
	MEDIAN	36	36	13	12	9

Note: Respondents who gave other responses or did not give an answer are not shown. In Japan the question asked about "Self Defense Forces" instead of the military.

Source: International Science Survey 2019-2020. Q2a-e.

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In a majority of surveyed publics, people with more education are more trusting of scientists than those with less education

In 14 of the 20 publics, people with more education express higher levels of trust in scientists than those with less education. For example, 54% of Canadians with at least some postsecondary education have a lot of confidence in scientists compared with 33% of Canadians with a secondary education or below, a difference of 21 percentage points. There are differences in trust in scientists by education levels in a number of other places, including the UK, Brazil, Germany, the U.S. and Sweden.

In some places, trust in scientists is also higher among people who have taken three or more science courses as part of their postsecondary education than among those with less postsecondary science training. This is the case in the UK, the Netherlands, Australia, the U.S. and Taiwan. However, science training is not uniformly related to higher trust in scientists; in most places surveyed, there is no significant relationship between the two. See details in <u>Appendix A</u>.

Age can also play a role in views of scientists. Adults younger than the median age report higher levels of trust in scientists to do what is right than those older than the median age in eight of the publics surveyed. Overall, the magnitude of these gaps is relatively modest. For instance, in the UK, 47% of those younger than the median age trust scientists a lot to do what is right compared with 37% of people older than the median age. See details in <u>Appendix A</u>.

Levels of trust in scientists and the military differ by political ideology

The growth of right-wing populist movements in many European nations, along with antiestablishment rhetoric, has heighted concern about the degree to which the general public values expertise. Views of experts have been a flashpoint in political conversations in places around the world, including the U.S. and UK. British conservative politician Michael Gove said during debates around the economic impact of leaving the European Union that "people in this country have had <u>enough of experts</u>," and in the U.S. President Donald Trump has often expressed a <u>low opinion of experts</u>.

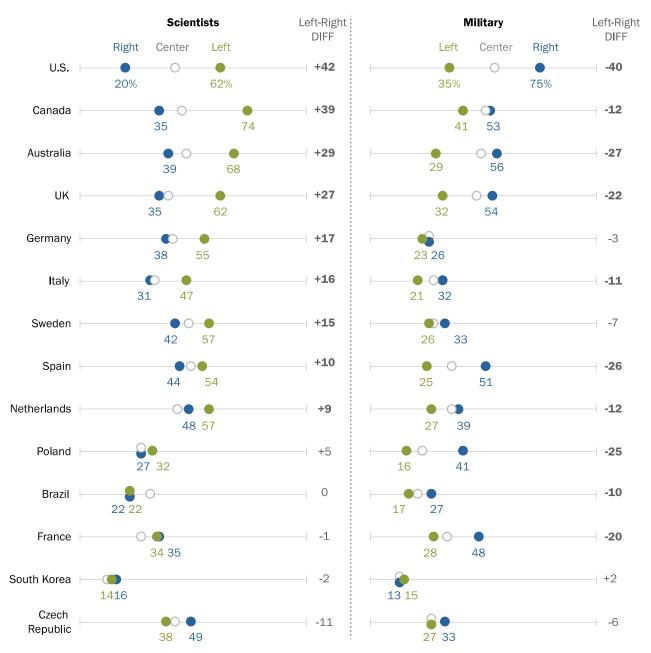
The Center's survey finds differences by political ideology in views of scientists, as well as the military, with those who place themselves on the left of a scale of political ideology often expressing more trust in scientists – and less trust in the military – than those on the right.

There are especially large differences in trust in scientists and the military by political ideology in all four English-speaking countries surveyed (the U.S., Canada, Australia and the UK). Majorities of those who identify themselves as left-leaning in these places say they have a lot of trust in scientists to do what is right for the public, while fewer than half say this about the military. For example, 62% of those on the left in the UK have a lot of trust in scientists, while just 32% say this about the military. The pattern is the reverse among those on the political right. In the U.S., for instance, 75% of those on the right express the highest level of trust in the military, compared with 20% who have a lot of trust in scientists.

Trust in scientists also is higher on the left than the right in Germany, Italy, Sweden, Spain and the Netherlands. People who consider their ideological views to be on the right are more inclined to trust the military to do what is right, although the size of the difference varies across these countries. (People's political ideology was asked in 14 of the 20 publics surveyed, primarily in Europe and the Americas.)

Left-leaning adults tend to trust scientists more than those on the right; those leaning right often express higher levels of trust in the military

% who trust scientists or the military **a lot** to do what is right for (survey public)



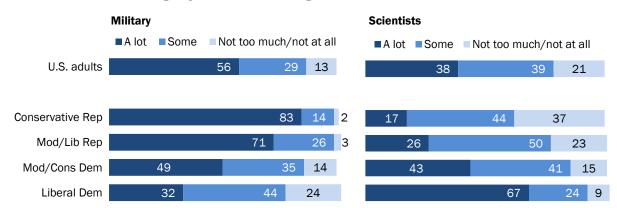
Note: Statistically significant differences in **bold.** Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q2b, d.

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In the U.S., political ideology is closely tied to party identification. Analysis of partisanship and ideology shows very large differences between liberal Democrats and conservative Republicans in the levels of trust they express in scientists and the military.

Two-thirds of liberal Democrats have a lot of trust in scientists to do what is right for the country, compared with just 17% of conservative Republicans. By contrast, a broad majority of conservative Republicans (83%) have a lot of trust in the military to do what is right for the county, compared with 32% of liberal Democrats.

In the U.S., there are wide political differences in trust in military and scientists



% of U.S. adults who trust each group _____ to do what is right for the United States

Note: Republicans and Democrats include independents and others who lean to each of the parties. Respondents who did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q2b, d.

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Publics skeptical that they should rely more on 'experts' to solve problems

Across publics, there is skepticism about relying on experts to solve important problems over those with practical experience in the problem area. In all 20 publics, fewer than half think they should rely more on people who are considered experts in the area – even if they don't have much practical experience – to solve pressing problems (median of 28%). In all places, larger shares say they should rely more on people with practical experience, even if they aren't considered experts (median of 66%).

When it comes to the decision making of scientists, a median of 55% think that scientists make judgments based solely on the facts, compared with a median of 41% who say they are just as likely to be biased as other people.

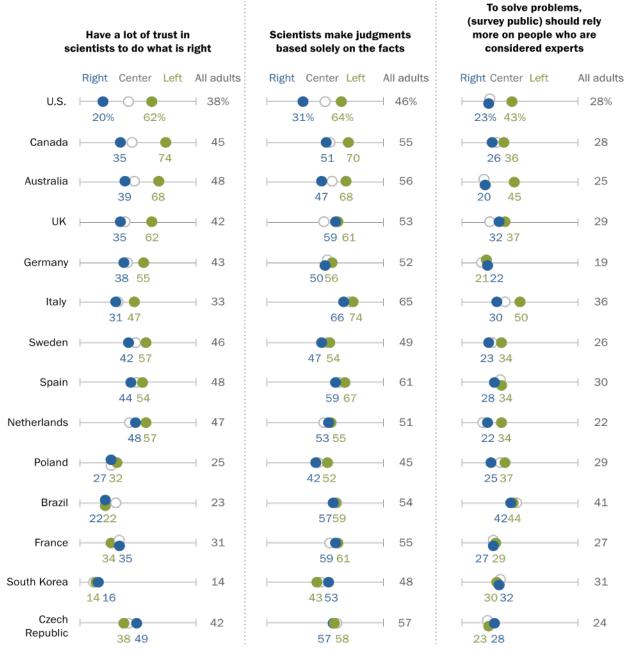
While there are often wide differences between those on the left and the right in overall trust in scientists, there are generally smaller gaps in assessments of whether scientists make decisions based on the facts and whether publics should rely more on people considered experts to solve problems.

For instance, in the UK, those on the left are 27 points more likely than those on the right to say they have a lot of trust in scientists to do what is right. However, there are quite modest differences between the shares of those on the left and right who say scientists make judgments based solely on the facts (61% and 59%, respectively) and say that the public should rely more on experts to solve problems (37% and 32%).

Where ideological differences in these two views exist, those on the left are more likely than those on the right to say that scientists make judgments on the facts and that the public should rely more on people who are considered experts. There are notable differences by ideology on these two questions in the U.S., Canada and Australia – three places where those on the left and right also express different levels of overall trust in scientists. In Australia, for instance, about two-thirds of those on the left (68%) think scientists make judgments based solely on the facts. By contrast, those on the right are about as likely to say scientists' judgments are as likely to be biased as other people's as to say they make judgments solely on the facts. Left-leaning Australians are also more inclined to rely on experts to solve problems; 45% of Australians on the left say the government should rely more on people who are considered experts to solve the nation's most pressing problems compared with just 20% of those on the right.

In many places, modest differences by ideology in views of scientists' judgments, value of experts

% who say ...



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q2d, Q15 & Q43. "Science and Scientists Held in High Esteem Across Global Publics"

Favorable views of right-wing populist parties also tend to align with lower trust in scientists, higher trust in the military

In most places, the relationship between trust in scientists and the military and attitudes toward right-wing populist parties mirrors that seen with political ideology. People in Europe with a favorable view of right-wing populist parties tend to report lower levels of trust in scientists – and higher levels of trust in the military – than those who view these parties unfavorably. Notably, differences are less pronounced between those with favorable and unfavorable views of right-wing populist parties when it comes to whether scientists base their decisions primarily on the facts and whether the public should rely more on experts to address pressing problems. (Supporters of European populist parties stand out across a number of issues. See <u>Center analyses</u> from 2019 for an overview.)

Those with favorable views of right-wing populist parties are often less trusting of scientists, more trusting of the military

% who trust scientists or the military **a lot** to do what is right for (survey public)

		Trust scier	ntists a lot					
		Among those the particular			Among those whose view of the party is			
		Unfavorable	Favorable	DIFF	Unfavorable	Favorable	DIFF	
Sweden	Sweden Democrats (SD)	53	34	+19	30	28	+2	
Germany	Alternative for Germany (AfD)	47	31	+16	23	35	-12	
Netherlands	Party for Freedom (PVV)	51	41	+10	34	36	-2	
Poland	Law and Justice (PiS)	30	21	+9	17	39	-22	
Spain	Vox	51	43	+8	29	58	-29	
Netherlands	Forum for Democracy (FvD)	50	42	+8	34	36	-2	
UK	Brexit Party	45	37	+8	43	56	-13	
Czech Rep.	Freedom and Direct Democracy (SPD)	44	37	+7	29	26	+3	
Italy	Lega	37	30	+7	23	37	-14	
UK	UK Independence Party (UKIP)	44	38	+6	43	57	-14	
Italy	Forza Italia	35	34	+1	26	33	-7	
Poland	Kukiz'15	26	26	0	26	28	-2	
France	National Rally (RN)	30	33	-3	34	50	-16	

Note: Statistically significant differences in **bold**. Populist party analysis only conducted for European countries. Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q2b, d.

"Science and Scientists Held in High Esteem Across Global Publics"

Majorities say the media do a good job covering science but say the public often doesn't know enough to understand news on scientific research

While relatively few people have strong trust in the media to do what is right, majorities across most of these publics give the news media positive marks for their science news coverage. Around two-thirds or more say the news media do a very or somewhat good job covering science topics, while far fewer say the media do a bad job covering science (20-public median of 68% vs. 28%).

Malaysians are the most positive about journalists' coverage, with 85% saying they do a good job covering science stories. About eightin-ten in Singapore (80%) and South Korea (77%) also say the news media do a good job covering science. Ratings of the news media are lowest in the U.S. and Spain, where roughly half say the media do a good job with their science coverage.

Science news coverage generally seen in a positive light

% who say the news media do a ____ covering science

	Bad job	Good job
Malaysia	14	85
Singapore	14	80
South Korea	19	77
Brazil	17	76
India	9	75
Poland	14	73
Czech Republic	23	70
Germany	27	69
Italy	28	69
Netherlands	29	69
Japan	28	67
Canada	30	66
Sweden	31	66
UK	32	64
France	34	61
Taiwan	36	60
Australia	37	59
Russia	24	59
U.S.	45	52
Spain	50	47
MEDIAN	28	68

Note: "Good job" includes respondents who said "somewhat" or "very" good job. "Bad job" includes respondents who said "somewhat" or "very" bad job. Respondents who did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q40. "Science and Scientists Held in High Esteem Across Global Publics"

www.pewresearch.org

Older adults tend to be more positive than younger adults about science media coverage. A larger share of older than younger adults say the news media do a very or somewhat good job covering sciencerelated stories in 12 of the publics surveyed. For instance, about three-quarters of older Swedes (76%) say the news media do a good job covering science, compared with 56% of younger Swedes.

People with more education are more critical of science news coverage in nine of these publics. For example, 59% of Italians with a postsecondary education or higher say the media do a good job covering science, compared with 71% of those with less education.

In most publics, political ideology - and support for right-wing populist parties – is not related to views of science media coverage. However, past **Pew Research Center research** has found people in a number of Western European countries who hold populist views are often less likely to trust the news media generally.

Older adults are often more likely to say the media do a good job covering science news

% who say the news media do a good job covering science								
-		Median age and younger	Older that median ag					
Sweden		56 •	• 76	+20				
France		54 ●	• 69	+15				
Japan			• 74 ·····	+14				
Taiwan		54 ●	• 67 ·····	+13				
U.S.		46	58	+12				
Canada		61 •	• 72	+11				
Italy		64	• 75	+11				
Spain		42 • 53		+11				
Netherlands		64	•	+10				
Germany		65	• 74	+9				
Australia		56 •	63	+7				
South Korea			74 •••• 79 ·····	+5				
UK		63	67	+4				
Brazil			76 • 77	+1				
Singapore			81 81	O				
Malaysia				6 −2				
Czech Republic			9 🐠 72	-3				
Russia		57 🐽	60	-3				
India			72 • 78 ·	-6				
Poland		6	9 •••••••• 77 •••••	-8				
	0	50		100				

Note: Statistically significant differences in **bold**. "Good job" includes respondents who said "somewhat" or "very" good job. Respondents who gave other responses or did not give an answer are not shown. Median age is the median sample age in each public. Source: International Science Survey 2019-2020. Q40.

"Science and Scientists Held in High Esteem Across Global Publics"

More see public understanding of science as a problem for news coverage than they do issues stemming from the media or from researchers

Asked to consider three potential problems for news coverage of scientific research, the public edict was clear. Majorities across 18 of 20 publics consider limited public understanding of science to be a problem for media coverage of scientific research (a median of 74% say this).

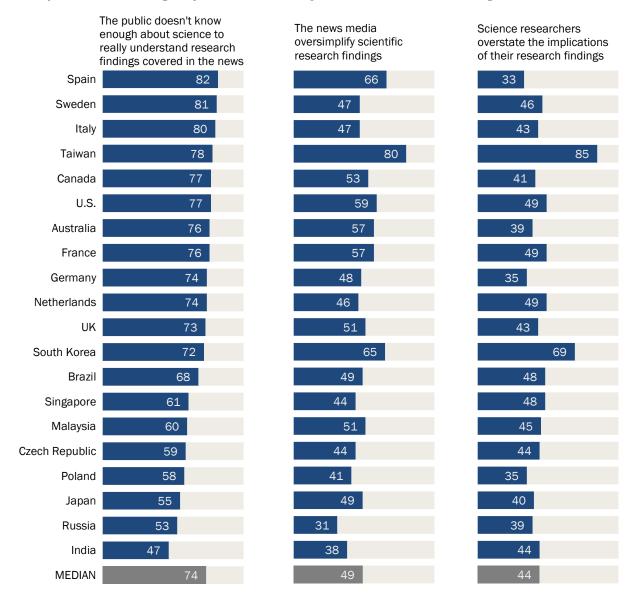
In general, fewer see other areas as potential problems for science news coverage. A 20-public median of 49% say the news media oversimplifying research findings is a problem in coverage. Places where a high share see oversimplification as a problem in science news coverage include Taiwan (80%), Spain (66%) and South Korea (65%).

Publics are not especially likely to blame researchers themselves for problems with science news coverage: A 20-public median of 44% say it's a problem for science news coverage that researchers overstate the implications of their findings. Majorities in only two publics – Taiwan (85%) and South Korea (69%) – see this as a problem.

Respondents who said at least two of these three issues were problems for scientific reporting were asked a follow-up question about what they see as the *biggest* problem with science coverage. A lack of public understanding was most frequently seen as the biggest problem of this set: A median of 52% across publics said this. Far smaller shares said the biggest problem for coverage was media oversimplifying research findings (median of 16%) or that researchers overstate the implications of their findings (median of 13%).

Majorities say the public doesn't know enough about science to understand research findings covered in the news

% who say each of the following is a problem with news reports of scientific research findings



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q41a-c. "Science and Scientists Held in High Esteem Across Global Publics"

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People across levels of educational attainment tend to see lack of public understanding as a problem for media coverage of science. However, in nine of 20 places surveyed, those with higher levels of education are more likely to say this than those with lower levels of education. Differences by education are especially pronounced in Brazil (a difference of 25 percentage points) followed by Malaysia (an 18-point difference). People's views about whether media oversimplification of research findings is a problem also tend to vary by education. In 11 publics, people with higher levels of education are more likely to say news media oversimplification of research findings is a problem. For details, see <u>Appendix A</u>.

2. On the eve of the pandemic, most of these publics saw their medical treatments in a positive light

Looking across the 20 publics surveyed, majorities considered their medical treatments to rank above those of other publics globally. Views of medical treatments were often seen more favorably than achievements in other areas, including science, technology, STEM education, politics and the economy. In the U.S., however, 61% said their scientific achievements were at least above average, while more -55% – said the same about their medical treatments. And in India, similarly sized majorities saw their country as above average or the best in the world across a number of areas. (The survey was conducted before the coronavirus outbreak reached pandemic proportions.)

Large majorities saw value from government investment in scientific research, saying that such investment is usually worthwhile for society over time. Majorities also generally considered it at least somewhat important to be a world leader in scientific research. But the share who considered their scientific achievements at least above average often lagged behind the share saying it was very important to be a world leader in science.

Many see their medical treatments in a favorable light; fewer say the same about STEM education for primary and secondary school students

Across the 20 publics, a median of 59% say their medical treatments are at least above average, with some of the highest ratings in the Asia-Pacific region. In South Korea and Taiwan, for example, 80% say their medical treatments are at least above average. By contrast, only 6% in Brazil and 13% in Poland think their medical treatments are the best in the world or above average.

Medians of 45% and 42% say their technological and scientific achievements are at least above average, respectively. Perceptions of areas of relative strength vary by public. In the UK, the U.S. and Japan, majorities give positive ratings to both their technological and scientific achievements. In South Korea and Singapore, majorities think their technological achievements are at least above average, but fewer than half say the same about scientific achievements. In Australia the opposite pattern occurs, with a smaller share giving their technological than scientific achievements high marks.

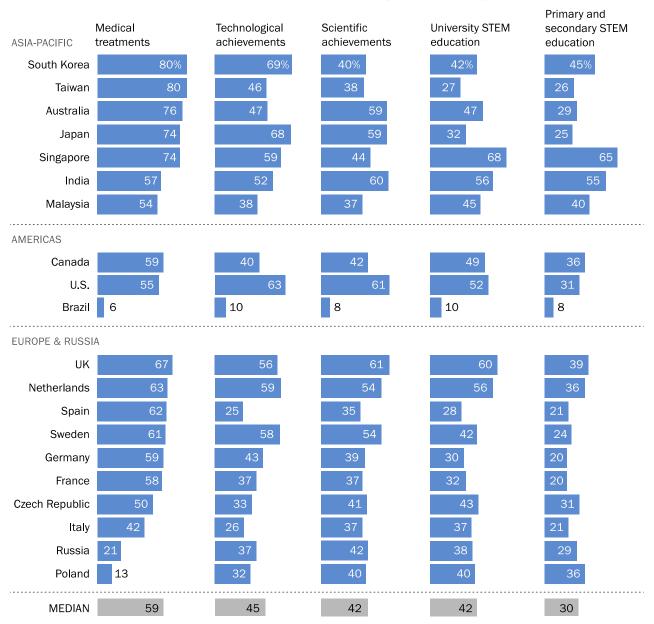
When it comes to education in science, technology, engineering and math (STEM), a median of 42% see their publics' university STEM training as above average or the best in the world. Ratings are far lower when it comes to STEM education at the primary and secondary school levels: Across

the 20 publics surveyed, a median of 30% view the STEM education at these levels as at least above average.

Singaporeans stand out for their strongly positive ratings of their STEM education: 65% rate their STEM education in primary and secondary schools as at least above average. The city-state <u>consistently ranks at or near the top</u> in math and science on the Programme for International Student Assessment (PISA) of 15-year-olds. Singapore is also one of only a handful in which a majority (68%) rates their university STEM education as at least above average, along with the UK (60%), the Netherlands (56%) and India (56%).

Across all areas of achievement, ratings are particularly low in Brazil. Just 10% or fewer consider their medical treatments, technological or scientific achievements and STEM education to be at least above average. A majority of Brazilians (63%) consider their medical treatments to be below average; 41% say the same about the country's scientific achievements. Brazilians' views of the political and economic system are also quite negative. Fewer than one-in-ten say their country is the best in the world or above average in these areas; majorities say each is below average compared with other nations.

Prior to the pandemic, many saw medical treatments as a source of achievement



% who say (survey public) is **the best in the world** or **above average** in the following areas

Note: Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q4a, e-h.

"Science and Scientists Held in High Esteem Across Global Publics"

Those with more education tend to see their STEM-related achievements in a more favorable light

Across the 20 publics, those with more education often rank their medical treatments, university STEM education and scientific achievements more highly than those with less education. For example, 72% of Germans with a postsecondary education or more think the country's medical treatments are at least above average compared with 57% of those with less education. Germans with more education are also more inclined than those with less education to say their university STEM education (47% vs. 27%) and scientific achievements (50% vs. 38%) are the best in the world or above average.

Malaysia stands out as the only survey public in which the pattern is reverse. Malaysians with at least a postsecondary education are *less likely* than others to see the country's university STEM education or scientific achievements in a favorable light. Malaysians with a postsecondary education also tend to give lower marks to the country's technological achievements as well as to its political system and economy.

While higher levels of education are often associated with more positive views of STEM-related achievements, postsecondary science training itself is not consistently tied to differences in these assessments. For instance, among those with a postsecondary education in Japan, 75% of those who took three or more science courses say their medical treatments are above average or the best in the world, compared with about as many (76%) who took zero to two science courses.

The absence of a relationship between postsecondary science training and ratings of medical treatments, scientific achievements and university STEM education is seen across many survey publics. However, Sweden, France and the Netherlands are exceptions to this general pattern. In these places, those who have at least a postsecondary education and who have completed three or more college-level science courses are more positive about the quality of their country's medical treatments, university-level STEM education and scientific achievements than postsecondary graduates with less science training.

Adults with more education often hold more positive views of medical treatments, university STEM education, scientific achievements than those with less education

	N	ledical tr	eatments	5	Scie	entific ac	hievemen	ents University STEM educa			tion	
	Educ	ation	More ed	ucation	Educ	ation	More ed	ucation	Education		More education	
	Less educ	More educ	0-2 sci courses		Less educ	More educ	0-2 sci courses		Less educ	More educ		3+ sci courses
Asia-Pacific												
South Korea	75	84	84	81	41	40	40	40	44	41	41	40
Taiwan	75	87	85	92	35	43	40	51	25	29	28	32
Australia	71	83	83	84	57	63	64	60	43	53	49	60
Japan	73	76	76	75	55	64	62	68	29	36	36	35
Singapore	66	81	82	80	38	49	48	49	61	75	71	80
India	58	54	53	57	58	65	64	66	57	54	52	59
Malaysia	55	48	49	46	40	23	24	20	48	32	34	28
Americas												
Canada	57	61	60	64	38	45	44	46	44	52	48	59
U.S.	52	57	50	62	53	66	59	71	47	54	52	56
Brazil	8	5	5	4	9	7	5	9	13	6	5	7
Europe & Russ	ia											
UK	66	69	69	70	57	69	68	72	55	70	69	73
Netherlands	61	67	62	76	50	64	61	70	51	67	63	74
Spain	58	69	66	72	35	36	33	38	26	30	26	34
Sweden	58	66	63	74	48	62	59	70	38	48	43	61
Germany	57	72	69	76	38	50	48	52	27	47	46	47
France	53	71	66	80	33	47	43	55	30	37	31	48
Czech Rep.	47	63	59	66	41	45	41	47	41	53	50	55
Italy	39	59	56	63	36	40	39	40	36	46	43	52
Russia	23	19	18	20	41	43	38	45	39	37	33	38
Poland	13	14	11	20	39	44	45	42	37	48	51	42

% who say (survey public) is the **best in the world** or **above average** in the following areas

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. In India and Brazil, "more education" includes people who completed secondary or above; in all other survey publics, "more education" includes those who completed postsecondary or above.

Source: International Science Survey 2019-2020. Q4a, f, h.

"Science and Scientists Held in High Esteem Across Global Publics"

In many places, men are more likely than women to highly rank their countries' accomplishments across a range of STEM-related areas, particularly in Europe. For example, in the Netherlands, men are more likely than women to say their country is at least above average in university STEM education (20 percentage point difference), medical treatments (by 18 points) and scientific achievements (18 points). There are similar differences between men and women in the ratings of

medical treatments, university STEM education and scientific achievements in France, Italy, Germany and the UK. See details in <u>Appendix</u> <u>A.</u>

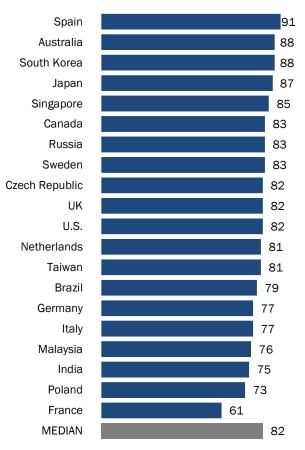
Majorities see government investments in scientific research as valuable; half or more think being a world leader in science is important

Overall, there is broad agreement among these 20 publics that government investment in scientific research is worthwhile. Large majorities in most publics surveyed say that government investment in scientific research aimed at advancing knowledge is usually worthwhile for society over time. Across all places surveyed, a median of 82% say this.

Further, majorities in all publics agree that being a world leader in scientific achievement is at least somewhat important. The share who view this as *very* important varies by public. A 20-public median of 51% place the highest level of importance on being a science world leader.

Large majorities say government investment in science is worthwhile

% who say government investments in scientific research aimed at advancing knowledge are usually worthwhile for society over time



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q9a. "Science and Scientists Held in High Esteem Across Global Publics"

Assessments of where each public stands in its scientific achievements often lag behind the shares who aspire to be a world leader in science.

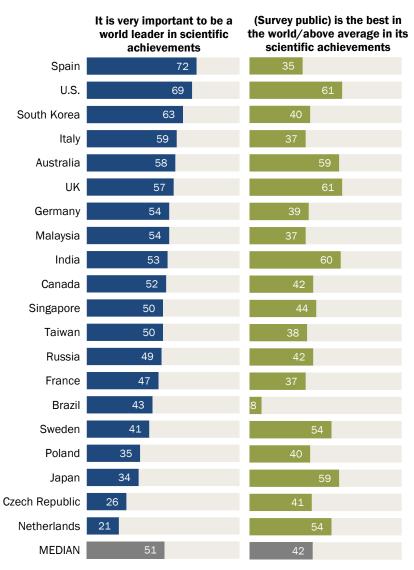
For example, 72% of Spaniards consider it very important to be a world leader in scientific achievement, but just 35% believe their country's scientific achievements are the best in the world or above average.

In a few places, the opposite pattern occurs. Among the Dutch, for instance, just 21% say it is very important to be a science world leader, while more than twice as many (54%) consider the nation to be at least above average in its scientific achievements.

People with higher levels of education are more likely than those with lower levels of education to think government investments in scientific research are worthwhile. There is a significant difference in views by level of education in 18 of the 20 publics surveyed.

In many places, public more likely to say it's very important to be a world leader in science than to view own achievements as above average

% who say ...



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q4a, Q7.

"Science and Scientists Held in High Esteem Across Global Publics."

In eight of 20 publics, people with more education are more likely than those with less education to say it is very important to be a world leader in scientific achievements.

Among those with higher levels of education, there is little difference in views on these two questions between those who have taken three or more science courses and those with less science training. See details in <u>Appendix A</u>.

3. Concern over climate and the environment predominates among these publics

There is a common concern across most of the surveyed publics around environmental protection. A median of seven-in-ten report that climate change is having at least some effect in the area where they live. About half or more consider climate change to be a very serious problem; public concern about climate change is up since 2015 in places where a previous Pew Research Center survey is available. And, while there is some variation, majorities across most of these publics believe their national government is doing too little to address climate change.

When respondents were asked to choose between protecting the environment and job creation, the balance of opinion landed squarely on the side of environmental protection. (This survey was conducted before the coronavirus pandemic and resultant economic strains in many of these publics.)

Further, as people think about energy issues, many more would prioritize expanding renewable energy production over that for fossil fuel energies. Views about specific energy sources underscore this pattern, with strong majorities in favor of expanding the use of wind, solar and hydropower sources and much less support, by comparison, for energy sources such as oil or coal.

People's views on climate, environment and energy issues tend to align with their political ideology. Those who place themselves on the left are more inclined to see climate change as a serious problem and to think their government is doing too little to address it. Left-leaning adults are especially inclined to prioritize protecting the environment or creating new jobs and to think it more important to increase renewable energy production over that for fossil fuels.

There is also a tendency for environmental and energy priorities to vary with age. In particular, a larger share of younger adults than older ones across most of these publics prioritize protecting the environment even it means harm to economic development.

Majorities see at least some effects of climate change where they live; a median of 58% say government action to address climate change is insufficient

A median of 70% across the 20 publics surveyed say they are experiencing a great deal or some effects of climate change in the area where they live. Italians and Spaniards stand out. More than eight-in-ten Italians (86%) say climate change is affecting the area where they live at least some, including 55% who think climate change is having a great deal of influence. A similar share of

Spaniards say climate change is affecting their local area at least some (84%, including 53% who say climate change is affecting where they live a great deal).

Those in two northern European nations, the UK and Sweden, are far less likely to say they are experiencing the effects of climate change. In Sweden, for example, 55% say they experience a great deal (16%) or some (39%) effects of climate change where they live.

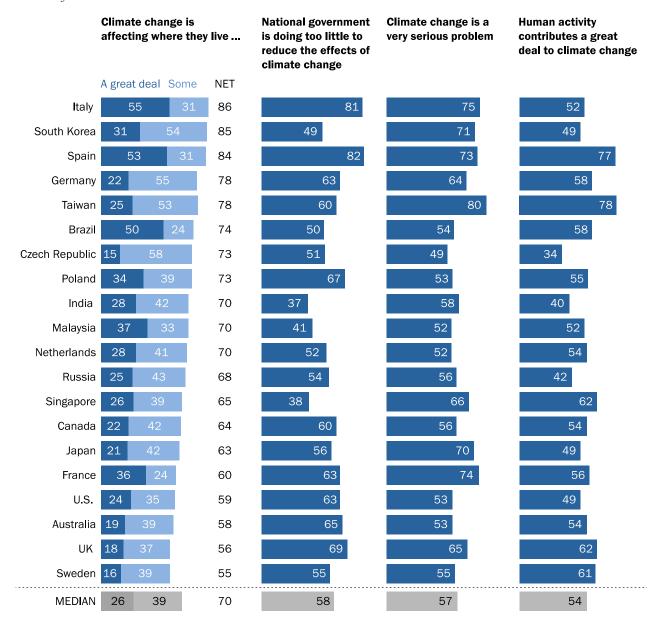
Overall, majorities across most of these publics believe their national government is doing too little to address climate change. A 20-public median of 58% say their national government is doing too little, compared with a median of 27% who say their government is doing about the right amount and a median of just 6% who say it is doing too much to reduce the effects of climate change.

Those in Spain and Italy again stand out. About eight-in-ten Spaniards (82%) and Italians (81%) say their government is doing too little on climate change. Only 14% in both Spain and Italy say their government is doing the right amount. Six-in-ten or more in other places, including the UK (69%), Poland (67%), France (63%), Germany (63%), the U.S. (63%), Canada (60%) and Taiwan (60%), say their government is doing too little.

Places where fewer than half see a need for more government action on climate change include Malaysia, Singapore and India. In Singapore, more say their government is doing the right amount (45%) to address climate change than say it is doing too little (38%). In Malaysia, similar shares say their government is doing too little (41%) and say it is doing the right amount (39%) now. And, in India, 37% say the government is doing too little, while 15% say it is doing the right amount and 32% say it doing too much to address climate change.

Majorities in most publics surveyed see climate change as a very serious problem and think their government is doing too little to address it

% who say ...



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q28, Q29, Q20 & Q31.

"Science and Scientists Held in High Esteem Across Global Publics"

Increasing shares see climate change as a very serious problem since 2015

Climate change is considered a very serious problem by a majority of adults across most of these publics (20-public median of 57%). There is variation in the degree of concern about climate change, however. Large majorities – seven-in-ten or more – in Taiwan (80%), Italy (75%), France

(74%), Spain (73%), South Korea (71%) and Japan (70%) see climate change as a very serious problem. By contrast, only about half in Australia (53%), Poland (53%), U.S. (53%), Malaysia (52%), Netherlands (52%) and Czech Republic (49%) say climate change is a very serious problem.

A <u>2015 Center survey</u> found the U.S. and China stand apart from other nations for their relatively low levels of concern

about climate change. In the new survey, too, Americans stand out for having a higher share who say that climate change is not too serious or not a problem (25%).

Concern about climate change is rising across many publics; the share saying climate change is a very serious problem rose in 12 of 15 publics where a comparison is available. In five European countries – Italy, France, Spain, the UK and Poland – the percentage of those who think climate change

Rising shares see climate change as a very serious problem

% who say climate change is a very serious problem



Note: Publics shown experienced at least a 6 percentage point increase since 2015. For Malaysia and Italy, in 2019, the survey was conducted by telephone and in 2015 it was conducted face-to-face. Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q28.

"Science and Scientists Held in High Esteem Across Global Publics"

is a very serious problem has grown by about 20 or more percentage points over roughly five years. For example, in the UK, about two-thirds (65%) now say climate change is a very serious problem, compared with roughly four-in-ten (41%) in 2015. Marked increases in the share saying climate change is a very serious problem also occur in South Korea and Japan (up 23 and 25 percentage points, respectively).

These findings are consistent with past <u>Pew Research Center surveys</u> using different question wording, which showed that global perceptions of climate change as a threat increased between 2013 and 2018. In the U.S., public concern about climate change has also <u>gone up over time</u>; however, concern has risen primarily among Democrats and not Republicans.

People's views about climate change are strongly linked to political ideology

Global perspectives on climate are strongly aligned with people's ideological leanings; those on the left are more inclined than those on the right to see climate change as a serious problem and to think their government is doing too little to address it.

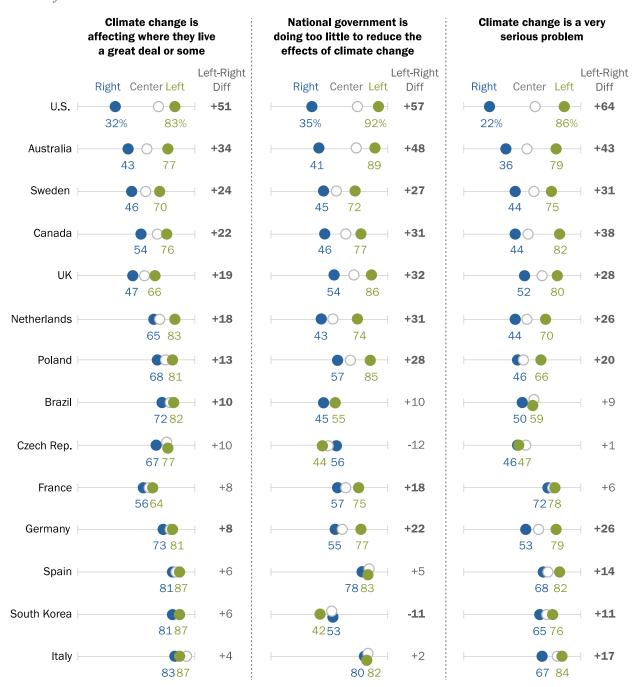
Ideological divides in the U.S. are larger than in any other public surveyed. Wide differences among Americans are also seen when comparing conservative Republicans with liberal Democrats. Political differences have been a hallmark of <u>Americans' views on climate</u>. But other publics also have wide ideological divides over climate matters, consistent with past Center findings.

Australians on the left are more than twice as likely as Australians on the right to say climate change is a very serious problem (79% vs. 36%). Similarly, Canadians on the left are 38 percentage points more likely than Canadians on the right to say climate change is a very serious problem (82% vs. 44%). And in five European countries (Sweden, UK, Germany, Netherlands and Poland), those on the left are 20 or more points more likely than those on the right to say climate change is a very serious problem.

Views on climate change are widely shared among older and younger adults. There is a modest tendency for younger adults (at or under the median age) to say climate change is a very serious problem compared with older adults in a handful of places, including Australia, Canada, UK, the U.S. and others.

Large ideological gaps across many publics in views on climate change

% who say ...



Note: Statistically significant differences in **bold.** Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q28, Q30 & Q31.

"Science and Scientists Held in High Esteem Across Global Publics"

Supporters of right-wing populist parties show less concern about climate change

In Europe, those who hold favorable views of right-wing populist parties generally see climate change as a less serious problem. For example, about one-third (32%) of supporters of Sweden Democrats (SD) say climate change is a very serious problem. In comparison, roughly seven-in-ten (69%) of Swedes who do not support SD say climate change is a very serious problem. Similarly, supporters of right-wing populist parties have drastically different views about how much their government is doing on climate change. In the UK, 49% of those who support the Brexit Party think the government is doing too little on climate, compared with 78% of those who do not support the party.

Supporters of right-wing populist parties in Europe generally less likely to think their government is doing too little on climate change

% who say ...

		Climate change is a very serious problem			National gov doing too litt effects of clir	le to reduce	
		Among those the particular	whose view of rty is		Among those of the pa		
		Unfavorable	Favorable	DIFF	Unfavorable	Favorable	DIFF
Sweden	Sweden Democrats (SD)	69	32	+37	64	39	+25
Germany	Alternative for Germany (AfD)	70	40	+30	68	45	+23
Netherlands	Party for Freedom (PVV)	60	37	+23	56	47	+9
UK	Brexit Party	72	50	+22	78	49	+29
Netherlands	Forum for Democracy (FvD)	59	40	+19	58	42	+16
Poland	Law and Justice (PiS)	59	45	+14	80	54	+26
Spain	Vox	78	64	+14	82	81	+1
UK	UK Independence Party (UKIP)	67	56	+ <u>11</u>	75	55	+20
France	National Rally (RN)	77	66	+ <u>11</u>	65	62	+3
Italy	Lega	79	69	+10	81	84	-3
Italy	Forza Italia	77	69	+8	83	81	+2
Poland	Kukiz'15	53	47	+6	70	71	-1
Czech Rep.	Freedom and Direct Democracy (SPD) 50	49	+1	53	49	+4

Note: Statistically significant differences in **bold**. Populist party analysis only conducted for European countries. Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q28, Q30.

"Science and Scientists Held in High Esteem Across Global Publics"

Large majorities see environmental problems where they live; a median of 71% would prioritize environmental protection over job creation

In most of these survey publics, large majorities classify a range of environmental issues as a big problem where they live. Majorities in 18 out of 20 survey publics see pollution of rivers, lakes and oceans as a big problem (20-public median of 78%). Nearly all in Spain (96%) and about nine-inten in Brazil, Italy, France and Russia say this. Swedes and Singaporeans are less concerned about water pollution, by comparison. In Sweden, for example, 54% say this is a big problem, 29% say it is a moderate problem and 16% say it is either a small problem or not problem.

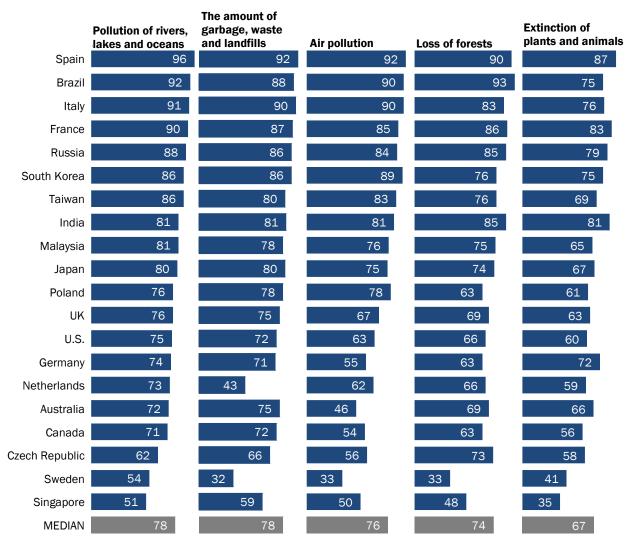
There is a similarly high level of concern about the amount of garbage, waste and landfills. Around nine-in-ten say this is a big problem in Spain, Brazil and Italy. Across 17 of the 20 publics, two-thirds or more consider this is a big problem. The Dutch (43%) and Swedes (32%) have lower levels of concern about this issue.

Public concern about other environmental issues is also high, including air pollution (20-public median of 76% say this is a big problem), the loss of forests (74% median) and extinction of plant and animal species (67% median).

Swedes are less likely to consider each of these issues to be a big problem where they live. In Sweden, roughly a third see landfill waste, air pollution and loss of forests as a big problem – the lowest percentage among survey publics for these three items.

Most see each of a range of environmental problems where they live

% who say _____ is a big problem in (survey public)



Note: Respondents who gave other responses or did not give an answer are not shown. In the Czech Republic, the item for the first column was worded as "pollution of rivers and lakes."

Source: International Science Survey 2019-2020. Q24a-c, e, f.

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If asked to choose, majorities across all of these publics say they would prioritize protecting the environment even if it causes slower economic growth. A median of 71% would prioritize environmental protection, while a quarter would prioritize job creation.

Public priorities on environmental protections have risen over time. In 18 of the 19 survey publics with a comparable survey trend, the share who would prioritize protecting the environment went up since 2005/2006.

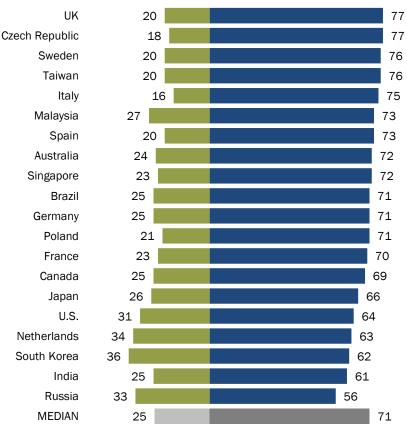
The exception is Canada, where 69% would prioritize protecting the environment, about the same as said this in a 2006 World Values Survey. (All trend comparisons to surveys conducted by the World Values Survey or the Asian Barometer Survey. Note that these surveys used different ways of contacting survey respondents over time and such differences in survey mode can influence

Majorities prioritize protecting the environment over job creation across all survey publics

% who say ____ should be given priority

Creating jobs (even if the environment suffers to some extent)

Protecting the environment (even if it causes slower economic growth and some loss of jobs)



Note: Respondents who did not give an answer are not shown. Source: International Science Survey 2019-2020. Q25. "Science and Scientists Held in High Esteem Across Global Publics"

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findings.) (See <u>Appendix A</u> for details.)

In China, a World Values Survey from 2018 showed a similar balance of opinion: 68% would prioritize protecting the environment, while 26% would prioritize creating jobs. The 2014 Asia Barometer survey found a similar pattern.

Public priorities related to the environment are strongly aligned with political ideology. People who think of their political views as on the left are much more likely than those on the right to prioritize environmental protection over job creation. Ideological differences are particularly wide in the U.S., Canada, Australia and the Netherlands (differences of at least 30 percentage points). This pattern is in line with wide differences by ideology on a range of climate, environment and energy issues.

Two-thirds in China said environmental protection should have priority over creating jobs as of 2018

% of adults in China who say _____ should be given top priority

	Protecting the environment	Creating jobs	Don't know/Refused
2018 (WVS)	68	26	6
2014 (<i>AB</i>)	66	20	14
2013 (WVS)	57	28	15
2007 (WVS)	54	23	23

Note: Surveys conducted using somewhat different methodology. See Appendix A for more on question wording and response options. Source: World Values Survey (WVS), Asian Barometer Survey (AB). "Science and Scientists Held in High Esteem Across Global Publics"

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(Ideological self-placement is asked in 14 of the 20 publics; it is not asked in many of the Asian publics.)

There are also differences by age across 12 of the 20 survey publics, with younger adults more likely than older adults to say that protecting the environment should be given priority. The difference is largest in the Netherlands (16 points) and the U.S. (15 points). In Spain, Brazil and Australia, there is a 13-point gap. See details in <u>Appendix A</u>.

Most adults across these publics would prioritize renewable energy sources over fossil fuel production

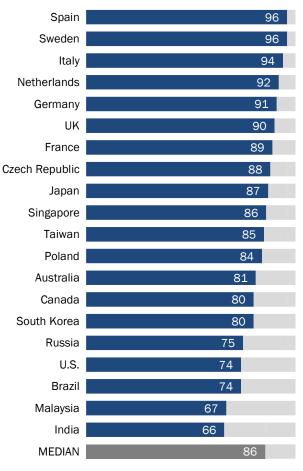
The United Nations' <u>sustainability goals</u> on climate emphasize a need to "decarbonize" all aspects of the economy. The Center survey finds majorities across all 20 publics surveyed support the idea of prioritizing renewable energy production over that from oil, natural gas and coal sources.

Across the 20 publics, a median of 86% would prioritize renewable energy production, from sources such as wind and solar, while a median of just 10% would prioritize fossil fuel production. In Spain and Sweden, there is near consensus over prioritizing renewable energy production (96% each). In Malaysia (67%) and India (66%), about two-thirds say the same.

As with beliefs about climate change, people on the left are more likely to prioritize renewable energy production than those on the right. See details in <u>Appendix A</u>.

Strong support for prioritizing energy from renewables over fossil fuels

% who prioritize increasing renewable energy production, such as wind and solar, over increasing production from oil, natural gas and coal



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q27.

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When asked for their views about each of seven energy sources, a similar portrait emerges. Strong majorities support expanding solar power (20-public median 93%), wind power (median 87%) and hydropower (median 85%).

Views on other energy sources are mixed. Support for expanding the use of natural gas ranges from a high of 88% in South Korea to a low of 38% in the Netherlands. <u>Demand for natural gas</u> has increased around the world over the last decade, in part from an interest in its lower carbon footprint. Across the 20 survey publics, a median of 69% support expanding the use of natural gas.

Public support for expanding the use of oil or coal is considerably lower. Medians of 39% and 24%, respectively, favor expanding reliance on oil and expanding the use of coal. Majorities in Russia and Malaysia support expanding the use of both energy sources, however. The two countries are major producers of fossil fuels. <u>Russia</u> is the world's largest producer of crude oil and third-largest exporter of coal. <u>Malaysia</u> is the second-largest oil and natural gas producer in Southeast Asia.

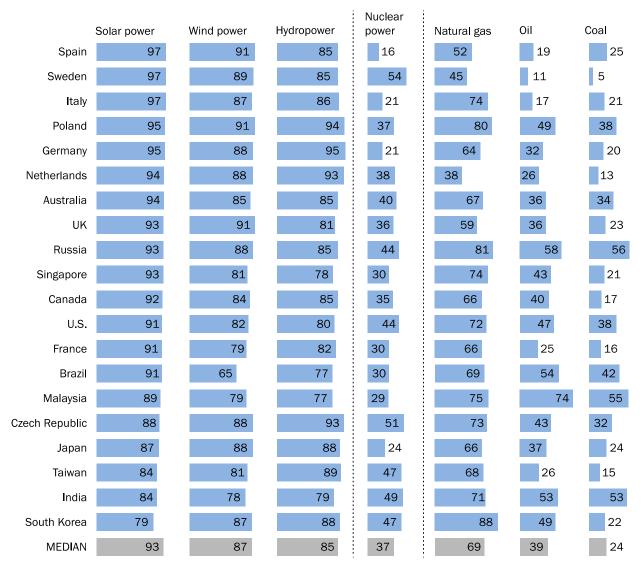
Public opinion on nuclear power is quite varied. In Sweden, the Czech Republic and India, about half the public favors expanding nuclear power. In Japan, where the 2011 Fukushima Daiichi accident led the government to drastically decrease reliance on nuclear power, 24% favor expanding nuclear power and 68% oppose it. The accident also led to <u>reappraisals</u> of nuclear energy production in other countries, including Germany (21% favor expanding), Italy (21%) and Spain (16%), which, along with Japan, are among the publics with the lowest support for expanding nuclear power.

Men tend to be more supportive of nuclear power than women. Swedish men are 31 percentage points more likely than Swedish women to favor expanding nuclear power, for example. Differences between men and women are also sizable in Australia (31 points), the Netherlands (30 points), Canada (27 points) and the U.S. (27 points). Gender differences on nuclear power are consistent with those in past surveys on this topic, including <u>a 2008 Eurobarometer survey</u>, which found men were more supportive of energy production from nuclear power stations across Europe.

As with views about climate and the environment, people's views about energy issues also tend to vary with their ideology. Across many of the publics, where ideology ratings are available, those on the left express are less likely than those on the right to favor expanding fossil fuel energy sources.

Most publics surveyed support expanding renewable energy sources and natural gas, fewer support expanding oil and coal

% who favor expanding each of the following as a source of energy



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q26a-g.

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4. Publics express a mix of views on AI, childhood vaccines, food and space issues

Public attitudes about science-related issues are as varied as the science itself. People's views about the effect of their government's space program on society are generally positive, with many more saying it has mostly been a good than a bad thing for society. Public sentiment about developments in artificial intelligence (AI) is mixed; majorities in most of the Asia-Pacific publics surveyed see AI as having a positive effect on society, while views in places such as the Netherlands, the UK, Canada and the U.S. are closely divided on this issue. There are similar divides over the societal impact from workplace automation using robotics.

Beliefs about the preventive health benefits from childhood vaccines, such as those for the measles, mumps and rubella, run the gamut from 84% saying they are high in Sweden to 49% saying the same in Russia. A median of 55% across the 20 publics rate the risk of side effects from childhood vaccines as low or none, 29% say the risks are medium and 12% say they are high.

Majorities across these publics turn a cautious eye to foods grown or produced with techniques informed by science. Larger shares consider fruits and vegetables grown with pesticides to be unsafe more than safe to eat. The same pattern is found in views about food and drinks that contain artificial preservatives and beliefs about foods with genetically engineered ingredients, colloquially known as GMOs.

There is no single background characteristic that connects with how people view these issues. Education and science training are strongly related to beliefs about the preventive health benefits of childhood vaccines and the potential health risk from eating foods with GM ingredients. (Those with more education or more science training in secondary or postsecondary schooling are more convinced that childhood vaccines bring high preventive health benefits and are more likely to think GM foods are safe to eat.) But education is only a modest factor in other science-related beliefs.

There are consistent gender differences on food issues, with women more likely than men to see each of the three food types considered in the survey as unsafe. Women are also less likely than men to think AI and job automation have been a good thing for society. On other science-related issues, however, there are no or only modest differences by gender.

Political differences are quite wide in people's views about climate, environment and energy issues. Ideology and support for right-wing populist parties are also a factor in people's beliefs

about childhood vaccines. But political identification is not a prominent factor in people's views on other science-related issues such as AI or GM foods.

Publics often express mixed views on the impact of artificial intelligence and job automation

Across the 20 publics surveyed, a median of 53% say the development of artificial intelligence (AI) has mostly been a good thing for society, while a median of one-third (33%) say it has mostly been a bad thing; the remaining share volunteer that it's been both, neither or say they don't know.

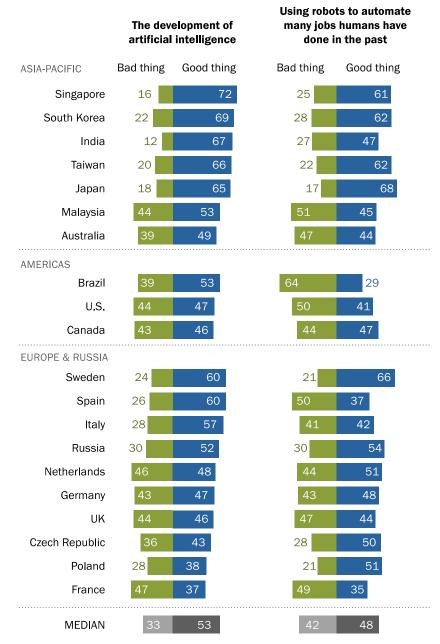
Public opinion on AI varies among the places surveyed. Majorities in eight publics say artificial intelligence, described in the survey as computer systems designed to imitate human behaviors, has been a good thing. This includes about two-thirds or more in five of the six Asian publics surveyed, including Singapore (72%), South Korea (69%), India (67%), Taiwan (66%) and Japan (65%).

Publics surveyed outside of Asia tend to be more divided over the effects of AI for society, especially in the Netherlands, the UK, Canada and the U.S. In the Netherlands, for instance, about half (48%) think AI has been a good thing, while 46% say it has been bad for society. People in France are particularly skeptical: Just 37% say the development of artificial intelligence is a good thing for society.

Ambivalence in some European countries about the development of AI echoes findings from a November 2019 Eurobarometer survey, which found Europeans overwhelmingly want to be informed when digital services or applications use artificial intelligence. In addition, about four-in-ten Europeans said they were concerned about the potential uses of AI leading to "situations where it is unclear who is responsible," such as traffic accidents caused by autonomous vehicles. About a third were worried that the use of artificial intelligence could lead to more discrimination or to situations where there is nobody to complain to when

Majorities in most Asian publics surveyed see Al as a good thing for society

% who say each of the following has mostly been a _____ for society



Note: Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q11a-b.

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problems occur. On the positive side, the Eurobarometer survey found half of Europeans thought AI could be used to improve medical care.

The Pew Research Center survey finds that publics offer mixed views about the use of robots to automate jobs. Across the 20 publics, a median of 48% say such automation has mostly been a good thing, while 42% say it has been a bad thing.

Majorities in four Asian publics see automation as good for society – Japan (68%), Taiwan (62%), South Korea (62%) and Singapore (61%) – as do about two-thirds (66%) in Sweden. Brazilians are the least likely to see this as a positive for society (29%), with nearly two-thirds (64%) saying the use of robots to automate human jobs has mostly been a bad thing for society.

A <u>2018 survey by the Center</u> found people in both developed and emerging economies were concerned about job automation and its potential to displace workers and exacerbate the gap between rich and poor. Brazilians, for instance, overwhelmingly said using robots and computers to do work currently done by humans would make it harder for people to find jobs (83%) and make inequality worse (80%).

Men, more educated people often feel more positively about AI and robotics in the workplace

In most publics, men feel more positively about AI than women do. In Japan, for instance, about three-quarters of men (73%) say artificial intelligence is a good thing, compared with 56% of women, a gap of 17 percentage points. A similarly sized gender gap is seen in South Korea, where more men than women (77% vs. 61%) say the effects of AI have been mostly positive.

Education also plays a role in views of AI. People with more education – those with a secondary education or more in Brazil and India or a postsecondary education or more in other survey publics – are generally more positive in their assessment of AI. In Australia, for example, 59% of people with higher levels of education think AI has mostly had a good impact on society, compared with 42% of those with less education. (Note, however, that within the more educated group, there is little difference between people who took three or more science courses and those who took fewer. Science training itself is not strongly associated with views on AI.)

Age is also sometimes a factor in views of AI. In 10 publics, younger people (those who are at or younger than the median age in the survey public sample) are more likely than older adults to say the development of artificial intelligence has been good. In Malaysia, the pattern is reversed, with older adults seeing AI more positively than younger adults (57% vs. 49%, respectively).

Men, younger adults, those with more education are often more likely to see artificial intelligence as a positive thing for society

% who say the development of artificial intelligence has mostly been a **good thing** for society

			Older than age and		Less More
ASIA-PACIFIC	Women Men	DIFF	median age younger	DIFF	education education DIFF
Japan	····• 56 ·•··• 73	+17	····•• 56 ·•··•• 73	+17	······ 61 ●● 71 +10
South Korea	····•• 77	+16	····· 63 ••• 74	+11	····· 64 •●• 73 +9
Australia	····· 44 •• 54 ·····	+10	······ 46 ••• 52 ·····	+6	····· 42 ••·•• 59 ···· +17
Taiwan	····· 62 · • • 71	+9	····· 60 ·•·• 73	+13	•••••• 74 +13
Singapore	····· 68 ·●•· 76	+8	····· 70 ·•• 75	+5	······ 71 · •· 73 +2
Malaysia	······ 50 • 55 ·····	+5	······ 49 · • • 57 ·····	-8	••••• 59 •••• +7
India	····· 67 ·•· 68 ·	-1	····· 66 · • 69 ·	+3	····· 66 ·●· 68 · -2
AMERICAS					
Brazil	······ 46 ·•··• 60 ····	+14		+7	······ 52 · •· 53 ····· +1
U.S.	40 53	+13	······ 44 ·••• 49 ······	+5	····· 41 •• 50 ····· +9
Canada	····· 41 •• 52 ·····	+11	····· 42 ·●•· 50 ······	+8	···· 38 •·• 52 ···· +14
EUROPE & RUSSIA					
Netherlands	····· 41 •··• 56 ·····	+15	······ 45 ·•• 52 ·····	+7	····· 43 ••··•• 61 ···· +18
Spain	······ 53 ·•·• 67 ··	+14	····· 60 • 61 ····	+1	······ 57 ●● 67 ·· +10
UK	39	+14	···· 38 ·•··•· 53 ·····	+15	····· 41 ·•··• 55 ····· +14
France	31 •••• 44 ·····	+ 1 3	··· 35 • 39 ·····	+4	··· 35 ·●• 43 ····· +8
Italy	······ 51 ·•·• 63 ····	+ <u>12</u>	····· 57 •· 57 ····	0	······ 55 •●● 65 ··· +10
Russia	······ 46 ·•·• 58 ·····	+12	······ 49 · • 53 ·····	+4	-4
Germany	····· 42 · • • 52 ·····	+10	······ 46 · • · 49 ······	+3	······ 46 ••• 54 ····· +8
Czech Republic	39 ••• 47 ·····	+8	····· 38 ·•·•· 48 ······	+10	····· 41 ••• 50 ····· +9
Sweden		+6	······ 55 ·•• 65 ···	+10	•••••• 67 •• +11
Poland		+5	·· 32 ·•·• 45 ·····	+13	···· 36 ·●•· 45 ····· +9
	0 50 100)	0 50 100)	0 50 100

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Median age is the median sample age in each public. In India and Brazil, "more education" includes people who completed secondary or above; in all other survey publics, "more education" includes those who completed postsecondary or above.

Source: International Science Survey 2019-2020. Q11b.

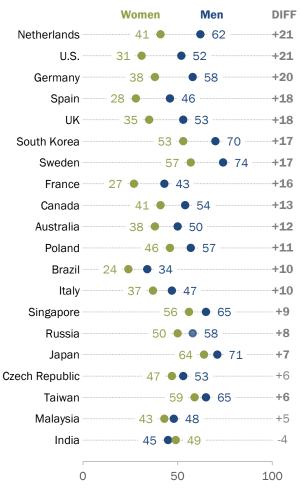
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View about how AI has impacted society are similar across ideology groups in most publics surveyed.

As with views about AI, the Center survey finds men are more likely than women to say the use of robots to automate jobs has been a good thing in most publics surveyed. In the Netherlands, for instance, 62% of men say automation has been mostly good for society, compared with 41% of women. There are similarly wide gender divides on this issue in the U.S. (52% of men vs. 31% of women) and Germany (58% vs. 38%).

Men more likely to see job automation as a good thing

% who say using robots to automate jobs has mostly been a **good thing** for society



Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q11a. "Science and Scientists Held in High Esteem Across Global Publics"

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People with higher levels of education and those with more science training are more likely to think automation is a positive for society. For example, a majority of Italians with postsecondary education or higher (65%) say using robots to automate jobs is a good thing, while only 38% of those with less education say the same.

Among those with higher levels of education, people who took three or more science courses tend to see automation as more positive than those who took fewer science courses. This pattern exists in 13 of the 20 publics surveyed. In Germany, for instance, about threequarters of those with postsecondary education or above who took three or more science courses (73%) say automation is a good thing for society, compared with 56% of those who took fewer science courses.

In most places, age and

ideology are not strongly related to views of automation. Similarly, in the European countries surveyed, people with a favorable view of a right-wing populist party in their country generally hold similar views about the effect of robotics in the workplace as do others in the survey public.

Higher levels of education and science training tied to more positive views of workplace automation

% who say using robots to automate jobs has mostly been a good thing for society

		Education		M	ore educati	on
	Less educ	More educ	DIFF	0-2 sci courses	3+ sci courses	DIFF
Italy	38	65	-27	60	73	-13
Netherlands	44	68	-24	64	75	-11
Spain	30	52	-22	45	58	-13
U.S.	29	49	-20	39	56	-17
Australia	37	56	-19	51	65	-14
Germany	46	64	-18	56	73	-17
Canada	37	55	-18	50	60	-10
Taiwan	54	72	-18	71	73	-2
France	30	47	-17	42	56	-14
South Korea	53	68	-15	64	80	-16
UK	40	55	-15	50	66	-16
Poland	47	60	-13	58	65	-7
Singapore	54	67	-13	64	71	-7
Sweden	62	74	-12	72	80	-8
Japan	64	75	-11	72	79	-7
Malaysia	44	53	-9	49	61	-12
Russia	48	57	-9	51	59	-8
Brazil	26	32	-6	27	38	-11
Czech Republic	49	55	-6	56	54	+2
India	50	42	+8	42	43	-1

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. In India and Brazil, "more education" includes people who completed secondary or above; in all other survey publics, "more education" includes those who completed postsecondary or above.

Source: International Science Survey 2019-2020. Q11a.

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While many see childhood vaccines as bringing high preventive health benefits, in some places sizable shares are not fully convinced

Across publics, majorities generally hold favorable views of the preventive health benefits from childhood vaccines, such as the measles, mumps and rubella vaccine (MMR), and tend to consider the risk of side effects as low. Still, there is considerable range in how widely these views are held across publics.

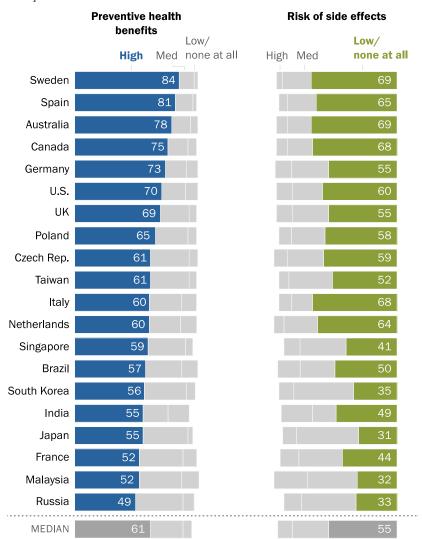
Public health experts often point to vaccines as one of the most important tools available to curb the spread of infectious disease. But their effectiveness depends on widespread access and "uptake" of vaccines on a recommended schedule specific to each disease.

Outbreaks of the measles in the U.S. and elsewhere were linked with lower rates of immunization for the disease in recent years. And <u>concerns</u> <u>about vaccine hesitancy</u> as well as communities espousing "anti-vax" views have grown in the U.S. and elsewhere.

A majority of adults in 17 of the 20 publics surveyed rate the preventive health benefits from

In most places surveyed, majorities see preventive health benefits in childhood vaccines

% who say the _____ of childhood vaccines for diseases such as measles, mumps and rubella are ...



Note: Respondents who did not give an answer are not shown. Source: International Science Survey 2019-2020. Q16a, b. "Science and Scientists Held in High Esteem Across Global Publics"

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childhood vaccines to be high. But there are only a handful of publics – Sweden, Spain and Australia – where about eight-in-ten or more are convinced of the high preventive health benefits. The shares who take this view are closer to six-in-ten in several places, including Italy, the Netherlands and Singapore. Russia (49%), France (52%) and India (55%) are among survey publics least likely to rate the preventive health benefits of vaccines as high.

Concerns about the risk of side effects from childhood vaccines also vary across publics, though they tend to be low in most places. For instance, in Sweden, Australia, Italy and Canada, nearly seven-in-ten say there is no or only a low risk of side effects from childhood vaccines. Somewhat smaller majorities say this in other places, including the U.S. (60%) and the Czech Republic (59%). In some publics, people are more skeptical. Half of Japanese adults say the risk of side effects is medium and 11% view it as high (31% say there is no or low risk). About half or more also consider the risk of side effects to be medium or high in Malaysia, Russia, South Korea, France and Singapore.

These patterns are broadly consistent with <u>2018 Wellcome Global Monitor</u> data that found lower shares convinced that vaccines are safe in Japan, South Korea, France, Russia and Taiwan.

People with more education are often more convinced that childhood vaccines bring health benefits with little risk

People with more education tend to rate the preventive health benefits of childhood vaccines higher – and the risk of side effects as lower – than those with less education. This pattern occurs in most of the 20 publics surveyed.

In some places, science training is also related to beliefs about childhood vaccines. In six publics, those with higher levels of education who have also completed at least three science courses are more convinced than those with higher levels of education but few science courses that childhood vaccines bring high preventive health benefits. A similar pattern holds in eight publics for views that the risk of side effects from childhood vaccines are low or nonexistent.

Those with higher levels of education often see more benefits, less risks with childhood vaccines

% who say the following about childhood vaccines for diseases such as measles, mumps and rubella

	The preventive health benefits are high					side effe one at a		
	Educ	ation	More ed	ucation	Educ	ation	More e	ducation
	Less educ	More educ	0-2 sci courses		Less educ	More educ	0-2 sci	3+ sci courses
Italy	56	78	74	85	66	79	78	80
Netherlands	54	73	70	79	62	69	64	79
France	48	64	61	69	40	54	52	58
U.S.	61	75	63	84	51	65	56	73
Taiwan	56	69	64	78	50	54	51	62
Malaysia	50	63	61	67	30	43	36	56
Spain	78	90	86	94	61	73	67	79
Brazil	5 2	64	59	69	44	58	57	59
Czech Rep.	59	70	67	73	58	61	63	60
Singapore	53	64	63	66	36	46	43	50
Australia	74	84	82	88	65	78	76	81
Sweden	81	90	88	94	64	77	74	84
UK	67	76	75	80	53	62	59	69
South Korea	51	60	61	58	31	39	38	39
Canada	70	78	77	80	63	73	72	74
Germany	72	80	77	83	53	68	64	74
Poland	65	67	62	76	58	58	52	69
Japan	54	56	56	57	29	34	31	39
Russia	49	48	44	50	31	34	32	36
India	56	55	54	58	50	48	45	53

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. In India and Brazil, "more education" includes people who completed secondary or above; in all other publics, "more education" includes those who completed postsecondary or above.

Source: International Science Survey 2019-2020. Q16a, b.

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Those with right-leaning political views and favorable ratings of right-wing populist parties are sometimes less convinced about benefits of childhood vaccines

In some publics, ideology and views of right-wing populist parties are related to beliefs about childhood vaccines. Those who place themselves on the right in terms of political ideology are less likely than those on the left to say that the benefits of childhood vaccines are high in Australia, Italy, the UK, Germany, Canada and the U.S. Similarly, in six of 14 publics where political ideology was measured, those on the ideological right are less likely than those on the left to rate the risk of side effects as low or none. See <u>Appendix A</u> for details.

In seven of the nine European nations surveyed, people who view their country's right-wing populist party (or parties) favorably are less likely to say childhood vaccines have high preventive health benefits. For instance, 47% of Dutch adults who view the Party for Freedom (PVV) favorably say these vaccines are highly beneficial, compared with 67% of people who hold unfavorable views of PVV.

Similarly, in European publics, those with favorable views of right-wing populist parties are generally less likely than those with unfavorable views to say the risk of vaccine side effects are low or nonexistent.

Those with favorable views of right-wing populist parties in Europe are often less likely to see benefits of childhood vaccines, more likely to see risks

% who say the following about childhood vaccines for diseases such as measles, mumps and rubella

		The preventive health benefits are high			The risk of side effects is low/none at all		
		0	e whose view arty is		Among those whose vie of the party is		
		Unfavorable	Favorable	DIFF	Unfavorable	Favorable	DIFF
Netherlands	Party for Freedom (PVV)	67	47	+20	68	57	+11
UK	UK Independence Party (UKIP)	76	56	+20	62	37	+25
France	National Rally (RN)	59	41	+18	48	37	+11
Czech Rep.	Freedom and Direct Democracy (SPD)	65	52	+13	62	49	+13
Netherlands	Forum for Democracy (FvD)	65	53	+12	69	56	+13
Sweden	Sweden Democrats (SD)	89	78	+11	74	59	+15
Germany	Alternative for Germany (AfD)	76	65	+11	59	44	+15
UK	Brexit Party	74	63	+11	60	46	+14
Italy	Forza Italia	65	55	+10	71	68	+3
Italy	Lega	65	57	+8	73	65	+8
Poland	Kukiz'15	66	59	+7	59	56	+3
Poland	Law and Justice (PiS)	67	61	+6	64	52	+12
Spain	Vox	83	81	+2	68	59	+9

Note: Statistically significant differences in **bold**. Populist party analysis only conducted for European countries. Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q16a, b.

"Science and Scientists Held in High Esteem Across Global Publics"

Many see foods with genetically modified ingredients, artificial preservatives or grown using pesticides as unsafe

In many publics around the world, people tend to turn a cautious eye to the safety of eating foods that contain genetically modified ingredients or artificial preservatives or, in the case of produce, have been grown with pesticides.

Modern developments in the cultivation and production of food have come under scrutiny from health advocates, particularly among those who believe organic and less processed foods are better for one's health. A <u>2016 report</u> from the National Academies of Sciences, Engineering and Medicine highlighted consensus among scientific experts in the U.S. that GM foods were safe. In 2019, <u>an expert panel in Japan</u> came to the same conclusion.

Crops or foods with genetically engineered ingredients, commonly referred to as genetically modified organisms or GMOs, face a complex and varying regulatory market around the world. Many European countries, such as <u>France</u> and <u>Germany</u>, have banned growing GM crops. The European Union also has some of the most stringent <u>labelling requirements</u> in the world. <u>Japan</u> and some other Asian publics, such as <u>South Korea</u>, also restrict commercially grown GM crops and require labeling of such foods. <u>The U.S.</u> and <u>Brazil</u> generally have more favorable regulations for GM crops and are among the world's largest producers of such crops.

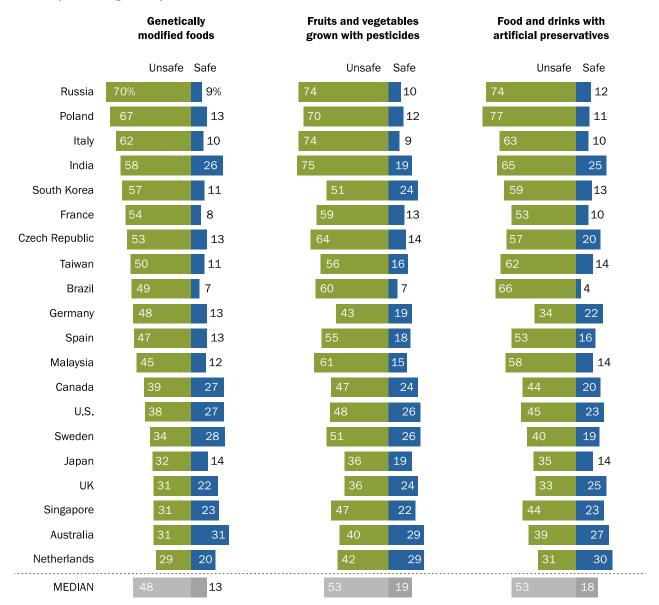
Across most of the publics surveyed, larger shares believe foods with GM ingredients are *unsafe* to eat than say they are safe (20-public median of 48% to 13%). A substantial share in some publics report that they don't know enough about such foods to say (20-public median of 37%). Russians are particularly likely to think that GM foods are unsafe to eat (70%). Just 9% of Russians say such foods are safe and 18% don't know enough to say either way. Australians are evenly divided with 31% each saying such foods are safe and saying such foods are unsafe. In places where GM foods are more restricted, the share saying they don't know enough to say tends to be higher. For example, about half of the public in Japan (51%) and the Netherlands (50%) don't have an opinion on this issue.

Public skepticism is also strong when it comes to judgments about the safety of produce grown with pesticides and food and drinks that contain artificial preservatives. For both types of foods, a median of 53% say they are unsafe to eat, with far fewer saying that each type of food is safe.

In Russia and Poland, two-thirds of the public or more consider each of the three food types to be generally unsafe to eat. Italy and India have majorities who consider each of these three types to be unsafe.

A median of roughly half in these publics consider genetically modified foods unsafe

% who say _____ are generally unsafe/safe to eat



Note: Respondents who said they don't know enough about this to say or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q18, Q19 & Q20. "Science and Scientists Held in High Esteem Across Global Publics"

Women often more likely than men to see a health risk from consuming foods with GMOs, pesticides and artificial preservatives

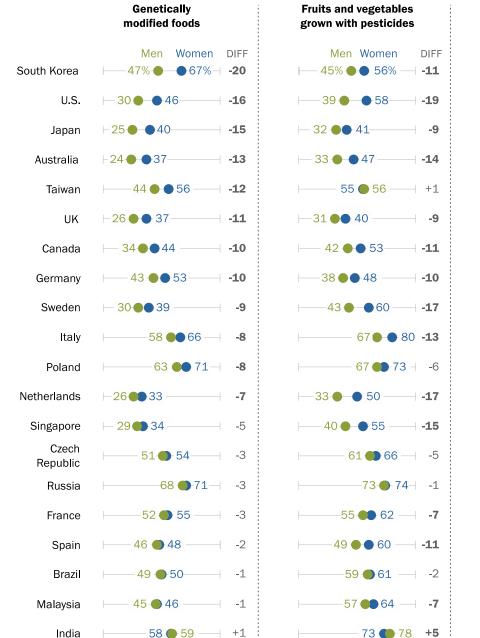
Women are more likely than men to consider foods with genetically modified ingredients unsafe to eat. This pattern occurs in 12 out of 20 places surveyed. Similarly, in most of these places, more women than men say that both fruits and vegetables grown with pesticides and food and drinks with artificial preservatives are unsafe.

Gender differences in the U.S. are among the largest across these publics for all three types of foods. A <u>2019 U.S. survey</u> by the Center also found women more likely than men to say that GM foods are worse for health than conventionally grown foods (58% vs. 42%).

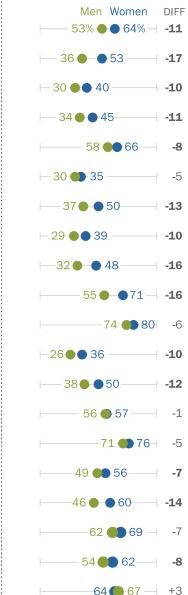
In many of these publics, people with more education, and specifically those who have also taken at least three science courses during their secondary or tertiary schooling, are more likely to see these foods as safe to eat. Education and science training differences in views about GM foods are particularly wide. For example, in the Netherlands, 27% of those with at least some postsecondary education who completed two or fewer science courses consider GM foods to be safe, while half (50%) of those who completed at least three science courses say the same. (See details in <u>Appendix A</u>.)

Women more inclined than men to see GMOs, pesticides and preservatives as unsafe to eat

% who say it is generally **unsafe** to eat ...



Food and drinks with artificial preservatives



Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q18, Q19 & Q20. Median age is the median sample age in each public. "Science and Scientists Held in High Esteem Across Global Publics."

Space programs are generally seen as having a positive impact on society

Majorities in most publics see their government's space exploration program as a good thing for

society. Among the 20 publics surveyed, a median of 72% say their government's space exploration program has mostly been a good thing for society. This includes about eight-inten or more in South Korea (85%), Japan (84%), the U.S. (83%), Malaysia (83%) and Russia (79%). (See <u>Topline</u> for the space programs included in the survey.)

In Europe, opinion about the European Space Agency (ESA) – an intergovernmental organization with 22 member states – also tilts to the positive. Majorities in Italy (73%), Germany (71%), the Netherlands (68%), the UK (68%), Spain (65%) and France (64%) say the program has mostly been a good thing for society. In Sweden (53%), the Czech Republic (52%) and Poland (48%), about half of adults feel this way about the ESA.

Majorities in most publics surveyed see their government's space program as a good thing for society

% who say their government's space exploration

program has mo	-	* *
ASIA-PACIFIC	Bad thing	Good thing
South Korea	9	85
Japan	7	84
Malaysia	14	83
Taiwan	14	76
India	5	75
Singapore	10	74
Australia	23	63
AMERICAS		
U.S.	10	83
Canada	12	77
Brazil	30	55
EUROPE & RUSSIA	A Contraction of the second se	
Russia	7	79
Italy	13	73
Germany	17	71
Netherlands	20	68
UK	21	68
Spain	13	65
France	17	64
Sweden	15	53
Czech Republic	19	52
Poland	12	48
MEDIAN	14	72
	who gave other r	

Note: Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q11c.

"Science and Scientists Held in High Esteem Across Global Publics."

Men are often more positive than women about the impact of their space program on society. The gender gaps are largest in Italy, where 81% of men vs. 66% of women see their country's space program as a good thing for society, and Brazil (62% vs. 48%, respectively). Only in Malaysia are women (86%) slightly more likely than men (81%) to say the space exploration program has been a good thing.

Men are often more likely than women to say their government's space program has been good for society

% who say their government's space exploration program has mostly been a **good thing** for society

	Men	Women	DIFF
Italy	81	66	+15
Brazil	62	48	+14
U.S.	89	78	+11
UK	73	62	+11
Australia	68	58	+10
Japan	89	79	+10
Poland	54	44	+10
Sweden	58	48	+10
Germany	75	66	+9
Russia	84	75	+9
France	68	60	+8
Netherlands	72	64	+8
Spain	69	61	+8
India	77	72	+5
South Korea	87	83	+4
Taiwan	78	74	+4
Canada	78	76	+2
Czech Republic	52	51	+1
Singapore	75	74	+1
Malaysia	81	86	-5

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q11c. "Science and Scientists Held in High Esteem Across Global Publics."

In 11 of the 20 survey publics, people with more education are more likely to see their government's space exploration program as a "good thing" for society. In Poland, for example, a majority of those with postsecondary education or higher (63%) say their space program has been good for society, compared with 42% of people with less education. The gap between more and less educated people is similarly large in Brazil (65% vs. 46%, respectively) and the Czech Republic (67% vs. 49%).

Having completed science courses, however, is not a major factor in people's views of space exploration programs. In addition, there are no differences in views – or only modest ones – by age or political ideology in assessments of space exploration programs.

In some survey publics, people with more education are more supportive of their government's space program

% who say their government's space exploration program has mostly been a **good thing** for society

	Less education	More education	DIFF
Poland	42	63	-21
Brazil	46	65	-19
Czech Republic	49	67	-18
Italy	71	85	-14
India	71	83	-12
Spain	62	72	-10
France	61	70	-9
Canada	73	81	-8
Australia	60	68	-8
U.S.	79	86	-7
Netherlands	66	73	-7
UK	66	71	-5
South Korea	83	86	-3
Sweden	52	55	-3
Taiwan	75	78	-3
Japan	83	85	-2
Germany	71	72	-1
Russia	78	79	-1
Singapore	74	75	-1
Malaysia	83	83	0

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. In India and Brazil, "more education" includes people who completed secondary or above; in all other survey publics, "more education" includes those who completed postsecondary or above. Source: International Science Survey 2019-2020. Q11c. "Science and Scientists Held in High Esteem Across Global Publics."

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While the analysis for this report was guided by our consultations with these advisers, Pew Research Center is solely responsible for the interpretation and reporting of the data.

Methodology

About Pew Research Center's International Science Survey 2019–2020

Results for the survey are based on telephone and face-to-face interviews conducted under the direction of Kantar Public UK, Kantar Public Korea, Langer Research Associates and Abt Associates. The results are based on national samples, unless otherwise noted. More details about our international survey methodology and country-specific sample designs are available <u>here</u>.

For details on the classification of European political parties see <u>Appendix B</u>.

Appendix A: Detailed charts and tables

Trust in scientists is often higher among those with more education

% who trust scientists **a lot** to do what is right for (survey public)

				More education				
	Less education	More education	DIFF	0-2 science courses	3+ science courses	DIFF		
	%	%		%	%			
Canada	33	54	-21	51	58	-7		
Netherlands	42	59	-17	53	70	-17		
UK	38	53	-15	46	70	-24		
Brazil	16	31	-15	28	34	-6		
Australia	43	57	-14	53	64	-11		
Spain	44	57	-13	57	58	- <u>1</u>		
Germany	41	54	-13	52	56	-4		
U.S.	30	43	-13	37	48	-11		
Sweden	42	52	-10	51	58	-7		
Italy	32	42	-10	43	39	+4		
Poland	22	32	-10	30	37	-7		
Singapore	29	38	-9	37	39	-2		
India	57	64	-7	65	62	+3		
France	29	36	-7	35	37	-2		
Czech Rep.	41	46	-5	36	54	-18		
Taiwan	15	20	-5	17	25	-8		
Malaysia	25	25	0	24	26	-2		
Japan	23	23	0	22	24	-2		
South Korea	14	14	0	13	17	-4		
Russia	29	25	+4	24	26	-2		

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. In India and Brazil, "more education" includes people who completed secondary or above; in all other survey publics, "more education" includes those who completed postsecondary or above.

Source: International Science Survey 2019-2020. Q2d.

Younger adults tend to have more trust in scientists in some of these places

% who trust scientists **a lot** to do what is right for (survey public)

	Younger than or median age	Older than median age	DIFF
	%	%	
Singapore	39	28	+11
UK	47	37	+10
Spain	52	43	+9
Canada	49	40	+9
Netherlands	51	43	+8
Sweden	50	42	+8
Brazil	27	19	+8
India	62	56	+6
Germany	46	40	+6
Malaysia	27	22	+5
U.S.	40	36	+4
Poland	27	24	+3
Czech Rep.	43	41	+2
France	32	30	+2
Australia	49	48	+1
Italy	33	33	0
Taiwan	17	18	-1
Japan	21	25	-4
South Korea	12	16	-4
Russia	23	30	-7

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Median age is the median sample age in each public. Source: International Science Survey 2019-2020. Q2d.

More educated adults often more likely to say public doesn't know enough to understand science news

% who say _____ is a problem for news reports of scientific research findings

	about understa	science to nd research	n findings		s media ove		
		ered in the r	news	scientific research findings			
	Less educ	More educ	DIFF	Less educ	More educ	DIFF	
Brazil	57	82	-25	39	61	-22	
Malaysia	58	76	-18	50	59	-9	
Singapore	52	68	-16	41	47	-6	
India	42	55	-13	35	44	-9	
Poland	55	66	-11	38	51	-13	
Taiwan	73	83	-10	77	84	-7	
UK	71	80	-9	48	60	-12	
Italy	79	86	-7	46	56	-10	
South Korea	68	75	-7	63	66	-3	
Germany	73	79	-6	47	55	-8	
U.S.	74	79	-5	57	61	-4	
Canada	75	79	-4	47	58	-11	
Japan	54	57	-3	48	52	-4	
Netherlands	73	75	-2	45	50	-5	
Russia	51	53	-2	27	34	-7	
Spain	81	83	-2	62	74	- <u>12</u>	
France	76	77	-1	56	61	-5	
Czech Republic	59	59	0	45	40	+5	
Sweden	82	81	+1	45	52	-7	
Australia	77	75	+2	55	60	-5	

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. In India and Brazil, "more education" includes people who completed secondary or above; in all other survey publics, "more education" includes those who completed postsecondary or above.

Source: International Science Survey 2019-2020. Q41a, b.

In many European countries, men are more likely than women to rate their medical treatments, university STEM education and scientific achievements highly

% who say (survey public) is the **best in the world** or **above average** in the following areas

	Medical treatments			Univers	University STEM education			Scientific achievements		
	Men	Women	DIFF	Men	Women	DIFF	Men	Women	DIFF	
Europe & Russia										
Netherlands	72	54	+18	66	46	+20	63	45	+18	
France	66	51	+15	38	26	+12	45	31	+14	
Spain	69	55	+14	27	28	-1	38	33	+5	
Italy	49	36	+13	43	32	+11	44	30	+14	
Germany	65	53	+12	34	26	+8	44	35	+9	
UK	71	62	+9	68	53	+15	67	56	+11	
Sweden	63	59	+4	47	36	+11	59	47	+ <u>12</u>	
Poland	13	13	0	39	41	-2	41	39	+2	
Russia	20	21	-1	37	38	-1	43	41	+2	
Czech Republic	49	51	-2	42	44	-2	42	40	+2	
Americas										
U.S.	61	49	+12	59	45	+14	70	51	+19	
Canada	62	57	+5	55	43	+12	47	37	+10	
Brazil	7	6	+1	10	9	+1	10	7	+3	
Asia-Pacific										
Japan	78	70	+8	35	28	+7	62	55	+7	
Taiwan	83	78	+5	32	22	+10	45	32	+13	
Singapore	77	72	+5	69	68	+1	46	42	+4	
South Korea	82	79	+3	41	43	-2	41	39	+2	
Malaysia	54	53	+1	43	48	-5	36	39	-3	
Australia	75	76	-1	48	46	+2	59	58	+1	
India	53	61	-8	56	56	0	62	58	+4	

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q4a, f, h.

Those with more education highly supportive of government investment in scientific research

% who say ...

	It is very important to be a world leader in scientific achievements					Govern	Government investments in scientific research are usually worthwhile over time					
		Educatior	1	Мо	re educat	ion	Education			More education		
	Less educ	More educ	DIFF	0-2 sci courses	3+ sci courses	DIFF	Less educ	More educ	DIFF	0-2 sci courses	3+ sci courses	DIFF
Brazil	33	54	-21	52	56	-4	71	88	-17	86	90	-4
Italy	57	70	-13	70	69	1	76	85	-9	85	84	1
Australia	53	65	-12	63	70	-7	86	92	-6	92	94	-2
France	44	56	-12	54	59	-5	56	73	-17	69	81	-12
UK	54	66	- <u>12</u>	64	71	-7	80	88	-8	87	89	-2
Czech Rep	25	34	-9	35	33	2	81	90	-9	90	90	0
Poland	33	42	-9	43	38	5	71	79	-8	74	87	-13
India	51	59	-8	58	60	-2	73	82	-9	80	85	-5
South Korea	59	66	-7	67	64	3	82	93	-11	92	94	-2
Germany	53	59	-6	56	61	-5	76	84	-8	84	86	-2
Sweden	38	44	-6	41	52	-11	81	87	-6	87	88	-1
Spain	71	76	-5	77	76	1	88	98	-10	97	98	-1
U.S.	66	71	-5	69	73	-4	76	86	-10	81	89	-8
Canada	50	54	-4	52	56	-4	79	86	-7	87	86	1
Japan	33	37	-4	36	40	-4	85	91	-6	90	93	-3
Russia	49	50	-1	53	48	5	82	84	-2	83	84	-1
Malaysia	54	54	0	55	52	3	75	84	-9	82	86	-4
Netherlands	22	22	0	18	31	-13	78	87	-9	86	91	-5
Singapore	52	49	3	44	55	-11	79	90	-11	89	91	-2
Taiwan	52	46	6	47	44	3	78	86	-8	84	89	-5

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not answer not shown. In India and Brazil, "more education" includes people who completed secondary or higher; in all other countries, "more education" includes those who completed a bachelor's degree or higher.

Source: International Science Survey 2019-2020. Q7, Q9a.

Public priorities on environmental protection have gone up over the past 15 years in most publics

% who say the priority should be ...

Australia	Protecting the environment 72	Creating jobs 24	Don't know/ Refused 4
2018 WVS	66	31	2
2012 WVS	59	40	1
2005 WVS	64	33	3
Brazil	71	25	4
2018 WVS	54	27	18
2014 WVS	60	30	10
2006 WVS	61	30	9
Canada	69	25	6
2006 WVS	68	21	10
France	70	23	7
2006 WVS	52	40	8
Germany	71	25	4
2018 WVS	63	27	9
2013 WVS	48	39	13
2006 WVS	34	46	20
India	61	25	14
2006/2007 WVS	37	25	38
Italy	75	16	9
2005 WVS	54	28	18
Japan	66	26	7
2019 WVS	34	23	43
2016 AB	45	38	17
2010 WVS	23	30	47
2005 WVS	36	23	40

Note: Surveys conducted using somewhat different methodology or modes of contacting respondents. Don't know/Refused also includes responses of "Not applicable" and "Other response" for WVS; it includes "Do not understand the question" and "Can't choose" for AB surveys. See topline for more details on question wording.

Source: International Science Survey 2019-2020, Q25. World Values Survey (WVS), Asian Barometer Survey (AB)

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Public priorities on environmental protection have gone up over the past 15 years in most publics

% who say the priority should be ...

Malaysia	Protecting the environment 73	Creating jobs 27	Don't know/ Refused 1
2018 WVS	60	35	5
2014 AB	49	46	5
2012 WVS	74	22	4
2006 WVS	48	40	12
Netherlands	63	34	3
2012 WVS	41	50	10
2006 WVS	47	44	9
Poland	71	21	9
2012 WVS	38	51	11
2005 WVS	37	48	15
Russia	56	33	11
2017 WVS	44	42	13
2011 WVS	51	36	13
2006 WVS	47	35	18
Singapore	72	23	5
2014 AB	38	38	24
2012 WVS	41	56	3

Note: Surveys conducted using somewhat different methodology or modes of contacting respondents. Don't know/Refused also includes responses of "Not applicable" and "Other response" for WVS; it includes "Do not understand the question" and "Can't choose" for AB surveys. See topline for more details on question wording.

Source: International Science Survey 2019-2020, Q25. World Values Survey (WVS), Asian Barometer Survey (AB)

"Science and Scientists Held in High Esteem Across Global Publics."

(Continues) PEW RESEARCH CENTER

Public priorities on environmental protection have gone up over the past 15 years in most publics

% who say the priority should be ...

South Korea	Protecting the environment 62	Creating jobs 36	Don't know/ Refused 2
2018 WVS	57	42	<1
2015 AB	35	55	11
2010 WVS	48	38	14
2005 WVS	35	52	13
Spain	73	20	7
2011 WVS	35	58	7
2007 WVS	56	29	14
Sweden	76	20	3
2011 WVS	63	32	5
2006 WVS	63	33	4
Taiwan	76	20	4
2019 WVS	63	36	1
2014 AB	64	29	7
2012 WVS	61	35	5
2006 WVS	52	43	5
United Kingdom	77	20	4
2005 WVS	58	34	8
United States	64	31	4
2017 WVS	50	39	11
2011 WVS	37	60	3
2006 WVS	53	45	1

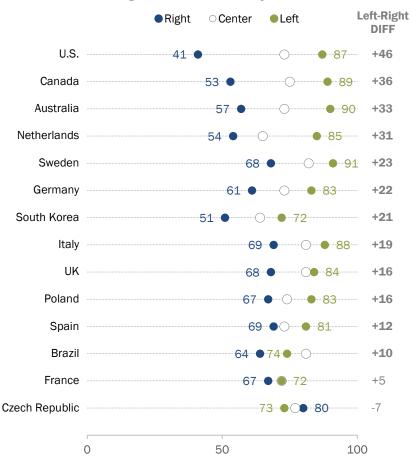
Note: Surveys conducted using somewhat different methodology or modes of contacting respondents. Don't know/Refused also includes responses of "Not applicable" and "Other response" for WVS; it includes "Do not understand the question" and "Can't choose" for AB surveys. See topline for more details on question wording.

Source: International Science Survey 2019-2020, Q25. World Values Survey (WVS), Asian Barometer Survey (AB)

"Science and Scientists Held in High Esteem Across Global Publics."

Those on the ideological left generally more likely than those on the right to prioritize protecting the environment

% who say protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs



Note: Statistically significant differences in **bold.** Respondents who gave other responses or did not give an answer are not shown.

Source: International Science Survey 2019-2020. Q25.

"Science and Scientists Held in High Esteem Across Global Publics"

Younger people are often more likely to prioritize protecting the environment over job creation

% who say protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs

		Older than median age	Younger t median		DIFF
Netherlands		55 ●	• 71		+16
U.S.		57 ●	• 72	2	+15
Australia		65	j	78	+13
Brazil		64	••••	77	+13
Spain		6	7	80	+13
Italy			69 🔴	81	+12
France		65	j	75	+10
Malaysia			\$8 • • 8	77	+9
UK			72 •	81	+9
Canada		6	6 • • 72	<u>2</u>	+6
India		58 ●	• 64		+6
Singapore			69 🔴 🔴 7	4	+5
South Korea		59	• 64		+5
Sweden			74 • •	79	+5
Poland			69 • 7	3	+4
Russia		55 🔎	58		+3
Germany			70 •• 7	3	+3
Taiwan			74 🐽	77	+3
Czech Republic			76 ●	79	+3
Japan		64	• 68		-4
C)	50		10	00

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Median age is the median sample age in each public. Source: International Science Survey 2019-2020. Q25.

"Science and Scientists Held in High Esteem Across Global Publics."

In some publics, stronger support for increasing renewable energy production on the ideological left

% who prioritize increasing renewable energy production over increasing production from oil, natural gas and coal

		●Right	○ Center	●Left	L	.eft-Right DIFF
U.S.		5:	2		9 3	+41
Australia			67 ●	······O·····	95	+28
Canada			69		95	+26
South Korea			69		88	+19
Germany				84 ●	○● 96	+ <u>12</u>
UK				83 ●	94	+11
Netherlands				88 ●	96	+8
Poland				81 🌒 🔴	89	+8
Sweden				94	••• 99	+5
Italy				92	•••••	+5
Spain				94	• • •98	+4
France				89		+3
Brazil			73	• 73 〇)2	0
Czech Republic				84 •	91	-7
	0		50		100	

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q27.

"Science and Scientists Held in High Esteem Across Global Publics"

Those on political left tend to see more benefits, less risk, from childhood vaccines

Preventive health Risk of side effects is benefits are high low/none at all Left-Right : Left-Right DIFF DIFF Right Center Left Right Center Left Australia ••• +18 +18 • 73% 91% 66% 84% Italy | +15 + +11 . . 55 70 69 80 UK |-0 • +15 +8 67 82 57 65 Canada |-•-0-• +13 00-+12 67 79 70 83 Germany | •••• +10 +7 52 59 68 78 U.S. |-0 • +9 •0--• +15 55 70 69 78 Netherlands 0. +700-0 +9 61 68 63 72 C +4+10 Spain |-81 85 59 69 Poland |-0-00 +4 +5 6872 56 61 Sweden 0 +3 \mathbf{O} +5 8487 6974 +2 -1 South Korea 55 57 36 37 • France |--2 -5 54 56 43 48 Brazil |-••• -6 • -00 +8 54 60 45 53 Czech Rep. + -7 • -2 60 67 57 59

% who say the following about childhood vaccines for diseases such as measles, mumps and rubella

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. Source: International Science Survey 2019-2020. Q16a, b.

Adults with more education often more likely to see these foods as generally safe than those with less education

% who say it is generally **safe** to eat ...

	Genetically modified foods			Fruits and vegetables grown with pesticides			wn with	Food and drinks with artificial preservatives				
	Educ	ation	More ec	lucation	Educ	ation	More ec	lucation	Educ	ation	More ec	lucation
	Less	More	0-2 sci		Less	More	0-2 sci		Less	More		3+ sci
	educ	educ	courses	courses	educ	educ	courses	courses	educ	educ	courses	courses
Netherlands	14	35	27	50	26	38	33	48	25	42	34	56
Singapore	13	31	28	34	16	26	25	27	19	26	23	30
U.S.	17	34	23	42	16	31	24	37	18	25	17	32
Italy	8	21	18	25	8	14	14	15	9	15	15	16
Australia	27	39	32	53	25	36	33	42	25	31	27	40
Spain	9	21	12	29	16	22	17	25	12	24	19	28
Canada	21	32	27	37	20	28	27	30	17	22	18	28
UK	19	28	20	47	23	26	22	36	21	31	26	46
Germany	12	21	15	28	18	23	21	26	20	35	28	44
Czech Republic	12	20	20	19	14	15	17	13	20	23	24	22
Malaysia	11	18	12	28	15	15	14	19	15	11	10	14
Sweden	26	33	24	58	23	29	25	41	16	25	20	39
Taiwan	8	15	12	21	12	22	19	29	9	20	15	31
Brazil	5	10	6	14	6	8	5	12	3	5	4	7
Japan	13	17	14	22	20	17	13	24	15	14	11	18
Poland	12	16	15	18	12	13	14	11	12	9	9	9
France	8	10	10	11	13	13	14	11	10	11	11	11
Russia	9	9	9	9	12	9	9	9	12	12	11	12
South Korea	12	11	9	16	23	25	24	29	11	14	14	15
India	27	24	26	22	22	14	12	16	28	21	20	24

Note: Statistically significant differences in **bold**. Respondents who gave other responses or did not give an answer are not shown. In India and Brazil, "more education" includes people who completed secondary or above; in all other survey publics, "more education" includes those who completed postsecondary or above.

Source: International Science Survey 2019-2020. Q18, Q19, Q20.

Appendix B: Classifying political parties as populist

Although experts generally agree that populist political leaders or parties display high levels of anti-elitism, definitions of populism vary. We use three measures to classify populist parties: anti-elite ratings from the <u>2019 Chapel Hill Expert Survey (CHES)</u>, Norris' <u>Global Party Survey</u> and <u>The PopuList</u>. We define a party as populist when at least two of these three measures classify it as such.

CHES, which was conducted from February to May 2020, asked 421 political scientists specializing in political parties and European integration to evaluate the 2019 positions of 277 European political parties across all European Union member states. CHES results are regularly used by academics to classify parties with regard to their left-right ideological leanings, their key party platform positions and their degree of populism, among other things.

We measure anti-elitism using an average of two variables in the CHES data. First, we used "PEOPLE_VS_ELITE," which asked the experts to measure the parties with regard to their position on direct vs. representative democracy, where 0 means that the parties support elected officeholders making the most important decisions and 10 means that "the people," not politicians, should make the most important decisions. Second, we used "ANTIELITE_SALIENCE," which is a measure of the salience of anti-establishment and anti-elite rhetoric for that particular party, with 0 meaning not at all salient and 10 meaning extremely salient. The average of these two measures is shown in the table below as "anti-elitism." In all countries, we consider parties that score above a 7.0 as "populist."

The <u>Global Party Survey</u>, which was conducted from November to December 2019, asked 1,861 experts on political parties, public opinion, elections and legislative behavior to evaluate the ideological values, issue position and populist rhetoric of parties in countries on which they are an expert, classifying a total of 1,051 parties in 163 countries. We used "TYPE_POPULISM," which categorizes populist rhetoric by parties. We added only "strongly populist" parties using this measure. In Italy, experts were asked to categorize the Center-Right coalition instead of individual parties within the coalition. The coalition includes Lega and Forza Italia. For both parties, we have used the coalition rating of "strongly populist."

The PopuList is an ongoing project to classify European political parties as populist, far right, far left and/or euroskeptic. <u>The project</u> specifically looks at parties that "obtained at least 2% of the vote in at least one national parliamentary election since 1998." It is based on collaboration

between academic experts and journalists. The PopuList classifies parties that emphasize the will of the people against the elite as populist.²

The Brexit Party in the UK is only classified as populist on one measure but is still included for analysis in the report. It is not included in the PopuList and does not meet our anti-elite CHES threshold of 7.0, but is considered a right-wing populist party by the Global Party Survey and <u>other experts</u>.

Classifying parties as left, right or center

We can further classify these traditional and populist parties into three groups: left, right and center. When classifying parties based on ideology, we relied on the variable "LRGEN" in the CHES dataset, which asked experts to rate the positions of each party in terms of its overall ideological stance, with 0 meaning extreme left, 5 meaning center and 10 meaning extreme right. We define left parties as those that score below 4.5 and right parties as those above 5.5. Center parties have ratings between 4.5 and 5.5.

² Mudde, Cas. 2004. "<u>The Populist Zeitgeist.</u>" Government and Opposition.

Party	Country	2019 Left-right	2019 Anti-elitism	2019 Global Party Survey	The PopuList
Populist parties on the left					
La France Insoumise	France	1.3	8.3	Strongly populist	Populist
Podemos	Spain	1.9	7.7		Populist
Populist parties in the center					
ANO 2011	Czech Rep.	4.7	5.1	Strongly populist	Populist
Five Star Movement (M5S)	Italy	4.8	9.2	Strongly populist	Populist
Populist parties on the right					
Forza Italia	Italy	6.9	4.1	Strongly populist	Populist
Kukiz'15	Poland	7.1	8.7		Populist
Law and Justice (PiS)	Poland	7.6	6.9	Strongly populist	Populist
Brexit Party	UK	8.2	5.3	Strongly populist	
Sweden Democrats	Sweden	8.5	7.5	Strongly populist	Populist
UK Independence Party (UKIP)	UK	8.7	8.7	Strongly populist	Populist
Party for Freedom (PVV)	Netherlands	8.7	9.5	Strongly populist	Populist
Lega	Italy	8.8	7.6	Strongly populist	Populist
Freedom and Direct Democracy (SPD)	Czech Rep.	8.8	8.7	Strongly populist	Populist
Alternative for Germany (AfD)	Germany	9.2	9.0	Strongly populist	Populist
Forum for Democracy (FvD)	Netherlands	9.5	9.7		Populist
Vox	Spain	9.7	4.1	Strongly populist	Populist
National Rally	France	9.8	8.6	Strongly populist	Populist

European populist party classifications

Notes: Left-right indicates the average score CHES experts gave each party on an 11-point left-right scale. Scores for anti-elitism are an average of party position on direct vs. representative democracy and the salience of anti-elite rhetoric within the party. Source: CHES (2019). Global Party Survey (2019). The PopuList (2019).

Topline questionnaire

International Science Survey 2019-2020 September 29, 2020 Release

Methodological notes:

- Survey results are based on national samples. For further details on sample designs, see Methodology section and our international survey methods <u>database</u>.
- Due to rounding, percentages may not total 100%. The topline "total" columns show 100%, because they are based on unrounded numbers.
- Not all questions included in the International Science Survey 2019-2020 are presented in this topline. Omitted questions have either been previously released or will be released in future reports.

		are you satisfied gs are going in (
	Satisfied	Dissatisfied	DK/Refused	Total
Australia	44	51	5	100
Brazil	23	74	3	100
Canada	53	42	4	100
Czech Republic	62	34	4	100
France	27	69	4	100
Germany	47	51	2	100
India	64	31	5	100
Italy	16	82	2	100
Japan	54	39	6	100
Malaysia	56	43	1	100
Netherlands	65	35	1	100
Poland	52	42	7	100
Russia	57	40	3	100
Singapore	90	8	2	100
South Korea	27	69	4	100
Spain	13	85	2	100
Sweden	37	57	6	100
Taiwan	45	49	6	100
United Kingdom	25	72	3	100
United States	36	59	6	100

	Q2a. How much	Q2a. How much do you trust to do what is right for (survey public) — a lot, some, not too much, or not at all? a. the national government						
	A lot	Some	Not too much	Not at all	DK/Refused	Total		
Australia	13	35	27	24	1	100		
Brazil	9	29	21	40	2	100		
Canada	14	42	23	19	2	100		
Czech Republic	8	40	32	19	1	100		
France	7	23	29	39	2	100		
Germany	14	39	26	21	1	100		
India	44	36	7	8	5	100		
Italy	4	16	37	41	2	100		
Japan	5	45	38	11	2	100		
Malaysia	22	38	29	10	1	100		
Netherlands	15	45	25	15	1	100		
Poland	14	35	27	20	3	100		
Russia	22	34	26	14	4	100		
Singapore	54	30	11	3	2	100		
South Korea	12	33	32	22	1	100		
Spain	8	23	24	44	1	100		
Sweden	10	42	26	21	1	100		
Taiwan	16	36	31	15	2	100		
United Kingdom	10	22	26	41	1	100		
United States	8	36	29	25	2	100		

Question asked about "federal government" in Australia, Canada, Germany and the U.S.; "central government" in India and Taiwan; "government" in Netherlands; and "government of the Russian Federation" in Russia.

	Q2b. How mucl	Q2b. How much do you trust to do what is right for (survey public) — a lot, some, not too much, or not at all? b. the military						
	A lot	Some	Not too much	Not at all	DK/Refused	Total		
Australia	46	36	9	4	4	100		
Brazil	21	37	17	21	4	100		
Canada	48	33	9	4	5	100		
Czech Republic	29	45	16	7	4	100		
France	38	40	10	8	4	100		
Germany	25	35	20	14	6	100		
India	80	13	2	1	5	100		
Italy	28	45	17	7	3	100		
Japan	32	54	9	2	3	100		
Malaysia	52	29	12	6	2	100		
Netherlands	35	43	13	6	2	100		
Poland	27	43	17	4	8	100		
Russia	44	39	9	4	4	100		
Singapore	54	27	9	3	7	100		
South Korea	14	39	34	11	2	100		
Spain	37	27	14	18	4	100		
Sweden	30	46	14	7	4	100		
Taiwan	18	35	30	11	5	100		
United Kingdom	47	29	11	8	5	100		
United States	56	29	8	5	2	100		

In Japan, the question asked about "the Self Defense Forces."

	Q2c. How much		to do what is uch, or not at all			, some, not too
	A lot	Some	Not too much	Not at all	DK/Refused	Total
Australia	8	35	32	25	1	100
Brazil	12	39	19	27	3	100
Canada	15	43	23	17	1	100
Czech Republic	10	52	28	10	1	100
France	5	18	39	36	2	100
Germany	13	40	27	20	1	100
India	33	40	9	8	9	100
Italy	6	31	39	20	2	100
Japan	6	46	37	9	2	100
Malaysia	23	33	33	10	1	100
Netherlands	14	48	26	12	1	100
Poland	10	46	29	10	5	100
Russia	14	33	31	18	4	100
Singapore	24	41	24	6	5	100
South Korea	3	27	45	24	1	100
Spain	12	31	28	29	1	100
Sweden	17	50	23	10	1	100
Taiwan	5	28	43	23	1	100
United Kingdom	5	26	32	34	2	100
United States	13	29	20	37	1	100

	Q2d. How much	Q2d. How much do you trust to do what is right for (survey public) — a lot, some, not much, or not at all? d. scientists						
	A lot	Some	Not too much	Not at all	DK/Refused	Total		
Australia	48	34	9	5	3	100		
Brazil	23	36	19	17	5	100		
Canada	45	37	11	4	3	100		
Czech Republic	42	45	9	1	3	100		
France	31	43	15	7	4	100		
Germany	43	39	9	4	5	100		
India	59	26	3	2	10	100		
Italy	33	43	13	7	4	100		
Japan	23	57	10	1	8	100		
Malaysia	25	41	25	7	1	100		
Netherlands	47	38	10	4	2	100		
Poland	25	49	14	3	9	100		
Russia	27	48	13	5	7	100		
Singapore	33	32	16	4	14	100		
South Korea	14	57	19	3	6	100		
Spain	48	32	11	6	3	100		
Sweden	46	44	6	1	3	100		
Taiwan	17	42	24	8	10	100		
United Kingdom	42	37	11	7	4	100		
United States	38	39	12	9	2	100		

	Q2e. How mucl	Q2e. How much do you trust to do what is right for (survey public) — a lot, some, not too much, or not at all? e. business leaders							
	A lot	Some	Not too much	Not at all	DK/Refused	Total			
Australia	7	41	32	18	2	100			
Brazil	4	34	22	37	3	100			
Canada	7	46	30	15	2	100			
Czech Republic	8	42	30	16	4	100			
France	4	16	35	40	4	100			
Germany	11	44	28	15	2	100			
India	22	40	14	15	10	100			
Italy	3	17	38	25	17	100			
Japan	4	46	32	5	14	100			
Malaysia	24	40	26	8	1	100			
Netherlands	11	43	30	14	2	100			
Poland	6	41	32	9	12	100			
Russia	11	35	29	15	10	100			
Singapore	27	41	20	5	8	100			
South Korea	5	29	45	19	1	100			
Spain	9	28	29	32	2	100			
Sweden	11	56	24	7	4	100			
Taiwan	11	44	36	8	2	100			
United Kingdom	9	36	29	23	3	100			
United States	11	37	29	21	2	100			

		Q4a. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? a. its scientific achievements							
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total			
Australia	6	53	33	5	4	100			
Brazil	2	6	42	41	8	100			
Canada	3	38	46	9	4	100			
Czech Republic	2	39	50	6	3	100			
France	3	35	47	9	6	100			
Germany	5	35	49	7	5	100			
India	30	30	22	5	12	100			
Italy	4	33	46	12	5	100			
Japan	12	46	31	6	4	100			
Malaysia	15	23	45	16	1	100			
Netherlands	4	50	41	3	2	100			
Poland	2	38	49	6	5	100			
Russia	13	29	41	10	7	100			
Singapore	6	38	38	7	11	100			
South Korea	6	35	42	16	2	100			
Spain	2	33	39	20	5	100			
Sweden	4	50	34	4	8	100			
Taiwan	1	37	40	17	5	100			
United Kingdom	9	52	30	5	3	100			
United States	18	43	29	7	3	100			

		Q4b. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? b. its political system							
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total			
Australia	6	32	40	20	2	100			
Brazil	2	3	18	74	3	100			
Canada	6	35	39	18	2	100			
Czech Republic	1	14	52	31	2	100			
France	1	16	42	38	3	100			
Germany	6	24	47	20	2	100			
India	22	21	27	17	14	100			
Italy	1	5	27	64	3	100			
Japan	2	23	43	29	3	100			
Malaysia	11	16	41	31	1	100			
Netherlands	4	33	42	20	1	100			
Poland	2	15	48	30	6	100			
Russia	10	20	38	24	9	100			
Singapore	14	42	29	7	9	100			
South Korea	1	12	30	56	1	100			
Spain	1	7	30	60	2	100			
Sweden	10	44	27	17	2	100			
Taiwan	1	23	34	37	4	100			
United Kingdom	6	24	36	32	3	100			
United States	17	24	27	31	2	100			

		Q4c. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? c. its economy						
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total		
Australia	4	39	41	15	1	100		
Brazil	2	4	24	67	4	100		
Canada	3	39	40	16	1	100		
Czech Republic	0	22	57	19	2	100		
France	2	17	46	31	4	100		
Germany	8	38	45	9	1	100		
India	18	23	28	19	12	100		
Italy	1	6	33	58	2	100		
Japan	3	32	39	23	3	100		
Malaysia	10	17	42	31	0	100		
Netherlands	5	50	37	7	1	100		
Poland	1	25	56	16	2	100		
Russia	4	13	39	40	4	100		
Singapore	15	55	26	2	2	100		
South Korea	2	33	37	27	1	100		
Spain	0	10	39	49	1	100		
Sweden	4	50	30	15	1	100		
Taiwan	0	20	43	36	1	100		
United Kingdom	4	38	39	17	2	100		
United States	22	38	26	13	1	100		

		Q4d. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? d. its military							
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total			
Australia	5	43	38	7	6	100			
Brazil	2	8	47	37	6	100			
Canada	5	26	46	17	6	100			
Czech Republic	2	26	52	16	3	100			
France	6	37	43	6	8	100			
Germany	2	11	49	32	6	100			
India	56	22	12	3	6	100			
Italy	4	19	53	17	6	100			
Japan	8	39	36	10	6	100			
Malaysia	22	29	35	13	2	100			
Netherlands	3	18	52	24	2	100			
Poland	1	24	52	16	6	100			
Russia	39	38	17	3	2	100			
Singapore	9	42	35	4	10	100			
South Korea	5	33	44	18	1	100			
Spain	3	28	45	15	9	100			
Sweden	1	19	39	36	5	100			
Taiwan	0	19	40	37	4	100			
United Kingdom	16	44	28	7	5	100			
United States	45	35	16	2	2	100			

	think about	Q4e. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? e. its science, technology, engineering and math education in [IN US: grades K-12/ ELSE: primary and secondary schools]							
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total			
Australia	3	26	49	18	5	100			
Brazil	2	6	37	51	4	100			
Canada	4	32	44	16	3	100			
Czech Republic	1	30	55	11	3	100			
France	3	17	44	30	6	100			
Germany	3	18	53	19	8	100			
India	27	27	27	11	7	100			
Italy	2	19	47	27	5	100			
Japan	2	23	43	25	7	100			
Malaysia	16	24	43	16	1	100			
Netherlands	3	33	51	9	3	100			
Poland	2	34	46	12	6	100			
Russia	8	21	47	19	5	100			
Singapore	16	49	23	1	11	100			
South Korea	9	36	35	18	3	100			
Spain	1	20	46	29	4	100			
Sweden	2	23	44	24	8	100			
Taiwan	1	25	44	24	7	100			
United Kingdom	6	33	39	16	5	100			
United States	6	25	39	27	2	100			

		Q4f. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? f. its medical treatments							
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total			
Australia	14	62	20	4	0	100			
Brazil	2	4	29	63	2	100			
Canada	8	52	27	13	1	100			
Czech Republic	3	47	40	10	0	100			
France	11	47	31	9	1	100			
Germany	12	47	33	7	0	100			
India	28	29	27	11	5	100			
Italy	7	36	36	20	2	100			
Japan	16	58	20	4	2	100			
Malaysia	21	33	37	10	0	100			
Netherlands	8	55	31	6	0	100			
Poland	1	13	38	48	1	100			
Russia	5	15	41	37	1	100			
Singapore	19	55	21	2	3	100			
South Korea	25	55	16	3	1	100			
Spain	8	53	28	9	1	100			
Sweden	7	54	28	10	2	100			
Taiwan	16	64	16	3	0	100			
United Kingdom	16	51	23	10	1	100			
United States	22	33	25	20	1	100			

	Q4g. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? g. its technological achievements						
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total	
Australia	4	43	43	8	2	100	
Brazil	3	7	43	41	6	100	
Canada	3	37	46	11	3	100	
Czech Republic	1	32	56	8	3	100	
France	3	33	47	11	5	100	
Germany	7	36	48	7	2	100	
India	25	27	27	7	14	100	
Italy	2	23	53	16	5	100	
Japan	18	50	24	5	2	100	
Malaysia	14	24	44	18	0	100	
Netherlands	7	52	36	3	2	100	
Poland	1	31	53	11	4	100	
Russia	11	26	41	16	6	100	
Singapore	10	49	32	4	5	100	
South Korea	16	53	25	5	1	100	
Spain	1	24	47	23	5	100	
Sweden	6	52	31	3	7	100	
Taiwan	3	43	37	13	3	100	
United Kingdom	7	49	34	8	2	100	
United States	19	44	28	6	2	100	

	Q4h. I'd like you to compare (survey public) to other nations in a few different ways. Please think about (item). Do you think (survey public) is the best in the world, above average, average or below average? h. its science, technology, engineering and math education in [US: colleges and universities ELSE: universities]							
	(survey public) is the best in the world	(survey public) is above average	(survey public) is average	(survey public) is below average	DK/Refused	Total		
Australia	3	43	36	8	9	100		
Brazil	2	7	48	35	7	100		
Canada	5	44	39	7	5	100		
Czech Republic	1	42	45	7	5	100		
France	4	28	45	14	10	100		
Germany	4	26	45	7	18	100		
India	29	27	25	7	12	100		
Italy	5	33	42	13	8	100		
Japan	4	28	43	15	10	100		
Malaysia	16	29	41	12	2	100		
Netherlands	6	50	37	1	5	100		
Poland	2	38	43	7	9	100		
Russia	12	26	44	10	8	100		
Singapore	15	53	22	1	9	100		
South Korea	6	36	41	15	2	100		
Spain	1	26	43	20	10	100		
Sweden	3	39	35	7	16	100		
Taiwan	1	26	43	23	6	100		
United Kingdom	11	49	28	6	6	100		
United States	14	38	34	12	3	100		

	Q5. Overall, would you say developments in science have had a mostly positive effect on society, a mostly negative effect on society or would you say there have been equal positive and negative effects on society?						
	Mostly positive effect	Mostly negative effect	Equal positive and negative effects	DK/Refused	Total		
Australia	54	3	41	1	100		
Brazil	25	16	49	10	100		
Canada	50	4	44	2	100		
Czech Republic	55	6	37	2	100		
France	30	7	61	2	100		
Germany	44	9	46	2	100		
India	51	11	26	12	100		
Italy	44	5	47	4	100		
Japan	58	3	37	1	100		
Malaysia	37	11	50	2	100		
Netherlands	47	7	44	1	100		
Poland	53	11	31	6	100		
Russia	49	3	43	5	100		
Singapore	52	5	36	7	100		
South Korea	55	7	36	2	100		
Spain	64	3	30	3	100		
Sweden	65	2	31	2	100		
Taiwan	52	4	42	2	100		
United Kingdom	48	5	44	3	100		
United States	41	5	53	1	100		

	for (survey p	Q7. Thinking about all the important goals for (survey public), how important do you think it is for (survey public) to be a world leader in scientific achievements? Do you think it is very important, somewhat important, not too important or not at all important?						
	Very important	Somewhat important	Not too important	Not at all important	DK/Refused	Total		
Australia	58	36	4	2	0	100		
Brazil	43	36	12	5	4	100		
Canada	52	40	6	2	0	100		
Czech Republic	26	49	18	4	2	100		
France	47	43	6	2	2	100		
Germany	54	34	8	3	1	100		
India	53	26	5	3	13	100		
Italy	59	33	5	1	2	100		
Japan	34	47	15	1	3	100		
Malaysia	54	35	9	3	1	100		
Netherlands	21	49	23	6	0	100		
Poland	35	50	10	1	4	100		
Russia	49	40	7	2	2	100		
Singapore	50	37	8	2	3	100		
South Korea	63	31	5	0	1	100		
Spain	72	22	3	1	1	100		
Sweden	41	45	10	3	1	100		
Taiwan	50	36	12	2	1	100		
United Kingdom	57	34	6	2	1	100		
United States	69	24	3	3	1	100		

	Q9a. In your opinion, are government investments in scientific research aimed at advancing knowledge usually worthwhile for society over time, or are they not worth the investment?						
	Yes, they are worthwhile for society over time	No, they are not worth the investment	DK/Refused	Total			
Australia	88	8	4	100			
Brazil	79	17	4	100			
Canada	83	10	7	100			
Czech Republic	82	12	6	100			
France	61	22	17	100			
Germany	77	17	7	100			
India	75	11	13	100			
Italy	77	15	8	100			
Japan	87	8	4	100			
Malaysia	76	22	2	100			
Netherlands	81	17	2	100			
Poland	73	16	11	100			
Russia	83	9	8	100			
Singapore	85	6	9	100			

	Q9a. In your opinion, are government investments in scientific research aimed at advancing knowledge usually worthwhile for society over time, or are they not worth the investment?							
	Yes, they are worthwhile for society over time	No, they are not worth the investment	DK/Refused	Total				
South Korea	88	10	2	100				
Spain	91	6	3	100				
Sweden	83	7	10	100				
Taiwan	81	12	7	100				
United Kingdom	82	12	6	100				
United States	82	15	3	100				

	Q11a. Consider all the advantages and disadvantages of Overall would you say this has mostly been a good thing or a bad thing for society? a. using robots to automate many jobs humans have done in the past						
	Good thing for society	Bad thing for society	Both (DO NOT READ)	Neither (DO NOT READ)	DK/Refused	Total	
Australia	44	47	5	1	3	100	
Brazil	29	64	4	0	3	100	
Canada	47	44	5	1	3	100	
Czech Republic	50	28	20	1	1	100	
France	35	49	12	2	2	100	
Germany	48	43	6	0	2	100	
India	47	27	13	2	11	100	
Italy	42	41	14	1	2	100	
Japan	68	17	7	7	2	100	
Malaysia	45	51	3	0	0	100	
Netherlands	51	44	3	1	1	100	
Poland	51	21	22	2	4	100	
Russia	54	30	9	2	4	100	
Singapore	61	25	8	1	5	100	
South Korea	62	28	6	1	3	100	
Spain	37	50	8	3	2	100	
Sweden	66	21	10	1	1	100	
Taiwan	62	22	13	1	2	100	
United Kingdom	44	47	6	1	3	100	
United States	41	50	6	1	2	100	

	mostly be	Q11b. Consider all the advantages and disadvantages of Overall would you say this has mostly been a good thing or a bad thing for society? b. the development of artificial intelligence, which are computer systems designed to imitate human behaviors						
	Good thing for society	Bad thing for society	Both (DO NOT READ)	Neither (DO NOT READ)	DK/Refused	Total		
Australia	49	39	5	1	7	100		
Brazil	53	39	3	0	5	100		
Canada	46	43	4	2	5	100		
Czech Republic	43	36	16	2	3	100		
France	37	47	10	2	4	100		
Germany	47	43	5	1	5	100		
India	67	12	11	1	8	100		
Italy	57	28	7	2	7	100		
Japan	65	18	7	6	4	100		
Malaysia	53	44	3	0	1	100		
Netherlands	48	46	3	0	2	100		
Poland	38	28	23	3	8	100		
Russia	52	30	8	3	8	100		
Singapore	72	16	6	1	5	100		
South Korea	69	22	5	0	4	100		
Spain	60	26	4	5	6	100		
Sweden	60	24	7	2	7	100		
Taiwan	66	20	10	1	3	100		
United Kingdom	46	44	5	1	4	100		
United States	47	44	4	1	4	100		

		Q11c. Consider all the advantages and disadvantages of Overall would you say this has mostly been a good thing or a bad thing for society? c. the government's space exploration program at (fill in program name for survey public)						
	Good thing for society	Bad thing for society	Both (DO NOT READ)	Neither (DO NOT READ)	DK/Refused	Total		
Australia	63	23	1	2	11	100		
Brazil	55	30	2	1	12	100		
Canada	77	12	1	2	8	100		
Czech Republic	52	19	13	4	12	100		
France	64	17	2	1	16	100		
Germany	71	17	3	1	9	100		
India	75	5	5	1	15	100		
Italy	73	13	3	2	9	100		
Japan	84	7	2	3	5	100		
Malaysia	83	14	1	1	2	100		
Netherlands	68	20	1	1	10	100		
Poland	48	12	14	4	21	100		
Russia	79	7	3	2	9	100		
Singapore	74	10	2	1	13	100		
South Korea	85	9	1	1	5	100		
Spain	65	13	1	5	16	100		
Sweden	53	15	2	3	27	100		
Taiwan	76	14	2	2	6	100		
United Kingdom	68	21	2	1	9	100		
United States	83	10	2	2	3	100		

Australia	Australian Space Agency
Brazil	Brazilian Space Agency
Canada	Canadian Space Agency
Czech Republic	European Space Agency, ESA
France	European Space Agency, ESA
Germany	European Space Agency, ESA
India	ISRO, Indian Space Research Organization
Italy	European Space Agency, ESA
Japan	Japan Aerospace Exploration Agency, JAXA
Malaysia	National Space Agency
Netherlands	European Space Agency, ESA
Poland	European Space Agency, ESA
Russia	ROSCOSMOS
Singapore	Office for Space Technology and Industry
South Korea	Korea Aerospace Research Institute, KARI
Spain	European Space Agency, ESA
Sweden	European Space Agency, ESA
Taiwan	National Space Organization
United Kingdom	European Space Agency, ESA
United States	National Aeronautics and Space Administration, NASA

	Q15. Thinking about scientists, which of these statements comes closer to your own view, even if neither is exactly right?						
	Scientists make judgments based solely on the facts	Scientists' judgments are just as likely to be biased as other people's	DK/Refused	Total			
Australia	56	41	4	100			
Brazil	54	30	16	100			
Canada	55	41	4	100			
Czech Republic	57	35	8	100			
France	55	34	11	100			
Germany	52	44	4	100			
India	62	17	20	100			
Italy	65	25	9	100			
Japan	59	33	8	100			
Malaysia	58	40	2	100			
Netherlands	51	46	3	100			
Poland	45	42	13	100			
Russia	60	30	10	100			
Singapore	53	39	8	100			
South Korea	48	50	3	100			
Spain	61	30	9	100			
Sweden	49	46	5	100			
Taiwan	42	52	6	100			
United Kingdom	53	42	5	100			
United States	46	51	3	100			

		Q16a. Thinking about childhood vaccines for diseases such as measles, mumps and rubella, would you rate as high, medium, low, or none at all? a. the risk of side effects						
	High	Medium	Low	None at all	DK/Refused	Total		
Australia	9	19	54	16	2	100		
Brazil	18	28	25	26	4	100		
Canada	9	20	53	16	3	100		
Czech Republic	11	29	48	11	2	100		
France	15	35	36	8	5	100		
Germany	13	30	47	8	2	100		
India	25	19	34	15	7	100		
Italy	10	17	52	16	5	100		
Japan	11	50	26	5	8	100		
Malaysia	27	40	16	16	1	100		
Netherlands	8	27	47	17	2	100		
Poland	10	27	45	13	4	100		
Russia	14	44	28	6	8	100		
Singapore	13	37	32	10	8	100		
South Korea	12	48	30	5	5	100		
Spain	7	23	52	13	6	100		
Sweden	5	23	54	15	3	100		
Taiwan	8	35	49	3	6	100		
United Kingdom	13	29	42	12	4	100		
United States	13	24	45	15	3	100		

	Q16b. Thinking about childhood vaccines for diseases such as measles, mumps and rubella, would you rate as high, medium, low, or none at all? b. the preventive health benefits					
	High	Medium	Low	None at all	DK/Refused	Total
Australia	78	15	5	2	1	100
Brazil	57	29	9	4	1	100
Canada	75	16	5	2	2	100
Czech Republic	61	31	6	2	1	100
France	52	35	8	3	2	100
Germany	73	17	7	3	1	100
India	55	20	13	4	7	100
Italy	60	26	9	3	2	100
Japan	55	36	3	1	5	100
Malaysia	52	34	8	6	0	100
Netherlands	60	25	9	5	2	100
Poland	65	26	5	1	2	100
Russia	49	38	7	2	4	100
Singapore	59	30	4	2	5	100
South Korea	56	34	4	2	3	100
Spain	81	14	2	1	1	100
Sweden	84	12	2	1	2	100
Taiwan	61	31	5	1	2	100
United Kingdom	69	23	4	2	2	100
United States	70	19	6	4	2	100

	Q18. Do you t grown wit	Q18. Do you think it is generally safe or unsafe to eat fruits and vegetable grown with pesticides, or do you not know enough about this to say?					
	Generally safe to eat	Generally unsafe to eat	Don't know enough to say about this	DK/Refused	Total		
Australia	29	40	30	1	100		
Brazil	7	60	31	2	100		
Canada	24	47	27	1	100		
Czech Republic	14	64	22	1	100		
France	13	59	27	1	100		
Germany	19	43	37	1	100		
India	19	75	3	2	100		
Italy	9	74	15	2	100		
Japan	19	36	43	1	100		
Malaysia	15	61	24	1	100		
Netherlands	29	42	29	0	100		
Poland	12	70	15	2	100		
Russia	10	74	14	1	100		
Singapore	22	47	30	1	100		
South Korea	24	51	24	1	100		
Spain	18	55	26	1	100		
Sweden	26	51	22	1	100		
Taiwan	16	56	27	2	100		
United Kingdom	24	36	39	1	100		
United States	26	48	25	1	100		

	Q19. Do you t artificial p	Q19. Do you think it is generally safe or unsafe to eat food and drinks with artificial preservatives, or do you not know enough about this to say?					
	Generally safe to eat	Generally unsafe to eat	Don't know enough to say about this	DK/Refused	Total		
Australia	27	39	33	1	100		
Brazil	4	66	28	2	100		
Canada	20	44	35	1	100		
Czech Republic	20	57	22	1	100		
France	10	53	36	1	100		
Germany	22	34	44	1	100		
India	25	65	5	5	100		
Italy	10	63	25	2	100		
Japan	14	35	49	1	100		
Malaysia	14	58	27	1	100		
Netherlands	30	31	39	0	100		
Poland	11	77	11	1	100		
Russia	12	74	13	1	100		
Singapore	23	44	32	2	100		
South Korea	13	59	27	1	100		
Spain	16	53	30	1	100		
Sweden	19	40	40	1	100		
Taiwan	14	62	24	1	100		
United Kingdom	25	33	42	1	100		
United States	23	45	32	1	100		

			ally safe or unsa ot know enough		
	Generally safe to eat	Generally unsafe to eat	Don't know enough to say about this	DK/Refused	Total
Australia	31	31	37	1	100
Brazil	7	49	39	4	100
Canada	27	39	33	1	100
Czech Republic	13	53	31	3	100
France	8	54	36	2	100
Germany	13	48	38	1	100
India	26	58	7	9	100
Italy	10	62	26	2	100
Japan	14	32	51	2	100
Malaysia	12	45	41	2	100
Netherlands	20	29	50	0	100
Poland	13	67	17	3	100
Russia	9	70	18	3	100
Singapore	23	31	44	2	100
South Korea	11	57	30	2	100
Spain	13	47	39	1	100
Sweden	28	34	36	2	100
Taiwan	11	50	38	1	100
United Kingdom	22	31	46	1	100
United States	27	38	33	1	100

		Q24a. I'd like you to think about some possible environmental problems. Do you think is a big problem, a moderate problem, a small problem or not a problem in (survey public)? a. air pollution						
	A big problem	A moderate problem	A small problem	Not a problem	DK/Refused	Total		
Australia	46	35	13	5	1	100		
Brazil	90	5	2	2	1	100		
Canada	54	29	11	6	0	100		
Czech Republic	56	35	7	1	0	100		
France	85	12	2	1	1	100		
Germany	55	31	10	4	0	100		
India	81	9	3	2	4	100		
Italy	90	8	1	0	1	100		
Japan	75	19	3	2	1	100		
Malaysia	76	17	5	2	0	100		
Netherlands	62	27	6	5	0	100		
Poland	78	15	6	1	1	100		
Russia	84	12	2	2	0	100		
Singapore	50	24	15	11	1	100		
South Korea	89	10	1	0	0	100		
Spain	92	6	1	1	0	100		
Sweden	33	41	19	6	1	100		
Taiwan	83	14	2	0	1	100		
United Kingdom	67	24	5	3	1	100		
United States	63	23	9	4	0	100		

		Q24b. I'd like you to think about some possible environmental problems. Do you think is a big problem, a moderate problem, a small problem or not a problem in (survey public)? b. pollution of rivers, lakes and oceans						
	A big problem	A moderate problem	A small problem	Not a problem	DK/Refused	Total		
Australia	72	20	5	3	0	100		
Brazil	92	4	2	1	1	100		
Canada	71	22	5	3	1	100		
Czech Republic	62	27	10	1	0	100		
France	90	6	2	1	1	100		
Germany	74	17	7	2	0	100		
India	81	9	3	2	4	100		
Italy	91	6	1	1	1	100		
Japan	80	15	2	2	0	100		
Malaysia	81	13	3	2	0	100		
Netherlands	73	18	5	4	1	100		
Poland	76	17	6	1	1	100		
Russia	88	8	2	2	1	100		
Singapore	51	20	15	12	2	100		
South Korea	86	12	1	1	0	100		
Spain	96	4	0	0	0	100		
Sweden	54	29	12	4	1	100		
Taiwan	86	11	2	0	1	100		
United Kingdom	76	17	4	2	1	100		
United States	75	15	6	2	1	100		

In Czech Republic, "pollution of rivers and lakes."

		224c. I'd like you to think about some possible environmental problems. Do you think is a big problem, a moderate problem, a small problem or not a problem in (survey public)? c. extinction of plant and animal species						
	A big problem	A moderate problem	A small problem	Not a problem	DK/Refused	Total		
Australia	66	20	8	4	2	100		
Brazil	75	10	4	8	3	100		
Canada	56	26	9	6	3	100		
Czech Republic	58	29	10	1	2	100		
France	83	10	3	2	1	100		
Germany	72	19	6	2	1	100		
India	81	9	3	2	4	100		
Italy	76	14	3	3	3	100		
Japan	67	27	3	2	1	100		
Malaysia	65	23	7	5	1	100		
Netherlands	59	28	7	6	0	100		
Poland	61	25	9	1	3	100		
Russia	79	14	3	2	1	100		
Singapore	35	24	14	16	11	100		
South Korea	75	20	3	2	1	100		
Spain	87	8	2	2	1	100		
Sweden	41	35	16	6	2	100		
Taiwan	69	22	5	2	2	100		
United Kingdom	63	22	7	5	3	100		
United States	60	21	10	7	3	100		

		Q24e. I'd like you to think about some possible environmental problems. Do you think is a big problem, a moderate problem, a small problem or not a problem in (survey public)? e. the amount of garbage, waste and landfills						
	A big problem	A moderate problem	A small problem	Not a problem	DK/Refused	Total		
Australia	75	17	4	3	1	100		
Brazil	88	6	2	2	1	100		
Canada	72	19	6	3	1	100		
Czech Republic	66	27	6	1	0	100		
France	87	9	2	1	1	100		
Germany	71	20	5	3	0	100		
India	81	10	3	2	3	100		
Italy	90	8	1	0	1	100		
Japan	80	16	2	1	1	100		
Malaysia	78	16	4	3	0	100		
Netherlands	43	35	9	11	1	100		
Poland	78	15	5	1	1	100		
Russia	86	9	2	2	0	100		
Singapore	59	19	10	9	4	100		
South Korea	86	11	2	1	0	100		
Spain	92	7	1	0	0	100		
Sweden	32	35	19	12	1	100		
Taiwan	80	14	3	1	1	100		
United Kingdom	75	17	4	2	2	100		
United States	72	19	6	3	1	100		

		Q24f. I'd like you to think about some possible environmental problems. Do you think is a big problem, a moderate problem, a small problem or not a problem in (survey public)? f. loss of forests						
	A big problem	A moderate problem	A small problem	Not a problem	DK/Refused	Total		
Australia	69	18	7	4	1	100		
Brazil	93	4	0	1	1	100		
Canada	63	20	8	8	1	100		
Czech Republic	73	20	6	1	0	100		
France	86	8	2	3	1	100		
Germany	63	24	7	5	2	100		
India	85	6	3	2	3	100		
Italy	83	9	3	2	3	100		
Japan	74	19	4	3	1	100		
Malaysia	75	17	5	3	1	100		
Netherlands	66	21	7	4	1	100		
Poland	63	24	10	2	1	100		
Russia	85	11	2	2	1	100		
Singapore	48	20	12	16	4	100		
South Korea	76	17	3	3	1	100		
Spain	90	6	1	1	2	100		
Sweden	33	32	18	15	3	100		
Taiwan	76	17	4	2	1	100		
United Kingdom	69	18	6	5	2	100		
United States	66	18	6	8	2	100		

	Q25. Which o	Q25. Which of these statements comes closer to your view, even if neither is exactly right?						
	Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs	Creating jobs should be the top priority, even if the environment suffers to some extent	DK/Refused	Total				
Australia	72	24	4	100				
Brazil	71	25	4	100				
Canada	69	25	6	100				
Czech Republic	77	18	4	100				
France	70	23	7	100				
Germany	71	25	4	100				
India	61	25	14	100				
Italy	75	16	9	100				
Japan	66	26	7	100				

	Q25. Which o	f these statemer even if neither	nts comes closer is exactly right?	to your view,
	Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs	Creating jobs should be the top priority, even if the environment suffers to some extent	DK/Refused	Total
Malaysia	73	27	1	100
Netherlands	63	34	3	100
Poland	71	21	9	100
Russia	56	33	11	100
Singapore	72	23	5	100
South Korea	62	36	2	100
Spain	73	20	7	100
Sweden	76	20	3	100
Taiwan	76	20	4	100
United Kingdom	77	20	4	100
United States	64	31	4	100

A similar question was asked on World Value Surveys and the Asian Barometer, although these surveys sometimes used different modes of contacting respondents. The World Value Surveys asked: "Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view?" The Asian Barometer asked: "There are two statements: (1) Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs; and (2) Creating jobs should be the top priority, even if the environment suffers to some extent. Which of these statements comes closer to your view?"

	Q26a. Do you f ener	avor or oppose i rgy in (survey pu	using more ıblic)? a. solar p	as a source of ower
	Favor	Oppose	DK/Refused	Total
Australia	94	5	1	100
Brazil	91	5	4	100
Canada	92	7	2	100
Czech Republic	88	10	2	100
France	91	7	2	100
Germany	95	3	2	100
India	84	7	9	100
Italy	97	2	1	100
Japan	87	8	4	100
Malaysia	89	9	1	100
Netherlands	94	5	1	100
Poland	95	4	1	100
Russia	93	4	3	100
Singapore	93	4	3	100
South Korea	79	19	2	100
Spain	97	2	1	100
Sweden	97	3	0	100
Taiwan	84	13	2	100
United Kingdom	93	5	1	100
United States	91	8	1	100

	Q26b. Do you f ener	avor or oppose rgy in (survey pu	using more ublic)? b. wind p	as a source of ower
	Favor	Oppose	DK/Refused	Total
Australia	85	12	3	100
Brazil	65	16	19	100
Canada	84	13	3	100
Czech Republic	88	9	3	100
France	79	15	6	100
Germany	88	10	2	100
India	78	8	14	100
Italy	87	7	7	100
Japan	88	8	4	100
Malaysia	79	18	3	100
Netherlands	88	11	1	100
Poland	91	6	3	100
Russia	88	7	5	100
Singapore	81	10	9	100
South Korea	87	11	2	100
Spain	91	4	5	100
Sweden	89	9	1	100
Taiwan	81	16	3	100
United Kingdom	91	7	2	100
United States	82	14	4	100

	Q26c. Do you favor or oppose using more as a source of energy in (survey public)? c. coal					
	Favor	Oppose	DK/Refused	Total		
Australia	34	60	6	100		
Brazil	42	42	16	100		
Canada	17	78	5	100		
Czech Republic	32	62	6	100		
France	16	78	6	100		
Germany	20	78	2	100		
India	53	33	14	100		
Italy	21	71	8	100		
Japan	24	67	10	100		
Malaysia	55	42	3	100		
Netherlands	13	83	4	100		
Poland	38	51	11	100		
Russia	56	37	7	100		
Singapore	21	68	11	100		
South Korea	22	75	3	100		
Spain	25	64	11	100		
Sweden	5	92	3	100		
Taiwan	15	80	5	100		
United Kingdom	23	71	6	100		
United States	38	57	5	100		

		Q26d. Do you favor or oppose using more as a source of energy in (survey public)? d. natural gas					
	Favor	Oppose	DK/Refused	Total			
Australia	67	27	6	100			
Brazil	69	21	10	100			
Canada	66	27	7	100			
Czech Republic	73	21	6	100			
France	66	26	8	100			
Germany	64	30	6	100			
India	71	16	13	100			
Italy	74	18	8	100			
Japan	66	21	13	100			
Malaysia	75	23	2	100			
Netherlands	38	60	2	100			
Poland	80	13	8	100			
Russia	81	14	5	100			
Singapore	74	19	7	100			
South Korea	88	9	3	100			
Spain	52	39	9	100			
Sweden	45	37	18	100			
Taiwan	68	27	5	100			
United Kingdom	59	35	7	100			
United States	72	24	4	100			

		Q26e. Do you favor or oppose using more as a source of energy in (survey public)? e. nuclear power					
	Favor	Oppose	DK/Refused	Total			
Australia	40	52	8	100			
Brazil	30	53	17	100			
Canada	35	57	8	100			
Czech Republic	51	39	10	100			
France	30	62	9	100			
Germany	21	78	2	100			
India	49	20	31	100			
Italy	21	71	8	100			
Japan	24	68	8	100			
Malaysia	29	67	4	100			
Netherlands	38	59	3	100			
Poland	37	46	17	100			
Russia	44	48	8	100			
Singapore	30	58	13	100			
South Korea	47	48	5	100			
Spain	16	77	7	100			
Sweden	54	38	7	100			
Taiwan	47	46	6	100			
United Kingdom	36	54	10	100			
United States	44	49	7	100			

	Q26f. Do you favor or oppose using more as a source of energy in (survey public)? f. oil					
	Favor	Oppose	DK/Refused	Total		
Australia	36	58	6	100		
Brazil	54	35	11	100		
Canada	40	55	6	100		
Czech Republic	43	46	11	100		
France	25	68	7	100		
Germany	32	65	3	100		
India	53	33	14	100		
Italy	17	76	7	100		
Japan	37	52	10	100		
Malaysia	74	25	1	100		
Netherlands	26	71	3	100		
Poland	49	35	15	100		
Russia	58	34	8	100		
Singapore	43	47	10	100		
South Korea	49	47	4	100		
Spain	19	76	5	100		
Sweden	11	85	4	100		
Taiwan	26	64	11	100		
United Kingdom	36	58	6	100		
United States	47	49	5	100		

		Q26g. Do you favor or oppose using more as a source of energy in (survey public)? g. hydropower					
	Favor	Oppose	DK/Refused	Total			
Australia	85	6	8	100			
Brazil	77	18	6	100			
Canada	85	10	5	100			
Czech Republic	93	5	2	100			
France	82	9	9	100			
Germany	95	4	2	100			
India	79	12	9	100			
Italy	86	7	7	100			
Japan	88	7	5	100			
Malaysia	77	18	4	100			
Netherlands	93	4	3	100			
Poland	94	4	3	100			
Russia	85	9	5	100			
Singapore	78	14	8	100			
South Korea	88	10	2	100			
Spain	85	8	7	100			
Sweden	85	12	3	100			
Taiwan	89	8	3	100			
United Kingdom	81	8	10	100			
United States	80	10	10	100			

	Q27. Right now, which of these do you think should be the more important priority for addressing (survey public)'s energy supply?					
	Increasing energy production from renewable energy such as wind and solar	Increasing energy production from oil, natural gas and coal	DK/Refused	Total		
Australia	81	16	3	100		
Brazil	74	16	9	100		
Canada	80	16	3	100		
Czech Republic	88	8	4	100		
France	89	6	5	100		
Germany	91	8	1	100		
India	66	20	15	100		
Italy	94	3	2	100		
Japan	87	9	4	100		
Malaysia	67	32	0	100		
Netherlands	92	6	1	100		
Poland	84	10	7	100		
Russia	75	18	6	100		
Singapore	86	10	4	100		
South Korea	80	17	3	100		
Spain	96	3	1	100		
Sweden	96	1	3	100		
Taiwan	85	8	7	100		
United Kingdom	90	8	2	100		
United States	74	24	2	100		

	Q28. In your vi	Q28. In your view, is global climate change a very serious problem, somewhat serious, not too serious or not a problem?						
	Very serious problem	Somewhat serious problem	Not too serious	Not a problem	DK/Refused	Total		
Australia	53	27	11	8	1	100		
Brazil	54	31	5	5	6	100		
Canada	56	28	9	6	1	100		
Czech Republic	49	38	10	1	1	100		
France	74	20	4	3	0	100		
Germany	64	22	9	5	0	100		
India	58	23	5	4	10	100		
Italy	75	20	2	2	1	100		
Japan	70	25	4	1	0	100		
Malaysia	52	30	11	6	1	100		
Netherlands	52	33	10	4	0	100		
Poland	53	37	7	2	2	100		
Russia	56	29	8	6	1	100		
Singapore	66	20	7	4	2	100		
South Korea	71	26	3	0	0	100		
Spain	73	21	4	2	1	100		
Sweden	55	34	5	4	1	100		
Taiwan	80	16	2	1	0	100		
United Kingdom	65	23	6	5	1	100		
United States	53	21	10	15	0	100		

		, contributes to all?				
	A great deal	Some	Not too much	Not at all	DK/Refused	Total
Australia	54	28	12	5	0	100
Brazil	58	20	7	7	8	100
Canada	54	30	10	3	3	100
Czech Republic	34	49	11	1	3	100
France	56	30	7	4	3	100
Germany	58	31	5	4	2	100
India	40	34	6	4	16	100
Italy	52	32	6	3	7	100
Japan	49	36	7	1	7	100
Malaysia	52	26	16	5	1	100
Netherlands	54	34	8	3	1	100
Poland	55	30	10	1	3	100
Russia	42	40	11	3	4	100
Singapore	62	21	9	2	5	100
South Korea	49	41	7	1	3	100
Spain	77	14	4	3	3	100
Sweden	61	27	6	3	3	100
Taiwan	78	18	1	1	1	100
United Kingdom	62	26	7	3	3	100
United States	49	26	13	10	2	100

		Q30. Do you think the national government is doing too much, too little, or about the right amount to reduce the effects of global climate change?						
	Too much	Too little	About the right amount	DK/Refused	Total			
Australia	7	65	23	4	100			
Brazil	4	50	41	5	100			
Canada	14	60	22	4	100			
Czech Republic	4	51	40	5	100			
France	7	63	26	5	100			
Germany	10	63	25	2	100			
India	32	37	15	16	100			
Italy	1	81	14	4	100			
Japan	4	56	35	5	100			
Malaysia	19	41	39	1	100			
Netherlands	18	52	29	1	100			
Poland	6	67	18	9	100			
Russia	6	54	28	12	100			
Singapore	8	38	45	9	100			
South Korea	5	49	42	4	100			
Spain	2	82	14	3	100			
Sweden	11	55	30	4	100			
Taiwan	3	60	32	6	100			
United Kingdom	5	69	23	3	100			
United States	11	63	21	4	100			

Question asked about "federal government" in Australia, Canada, Germany and the U.S.; "central government" in India and Taiwan; "government" in Netherlands; and "government of the Russian Federation" in Russia.

		Q31. Do you think global climate change is affecting [IN US: your local community/ELSE: The area where you live] a great deal, some, not too much or not at all?							
	A great deal	Some	Not too much	Not at all	DK/Refused	Total			
Australia	19	39	24	18	1	100			
Brazil	50	24	12	9	5	100			
Canada	22	42	21	14	1	100			
Czech Republic	15	58	21	5	1	100			
France	36	24	32	6	2	100			
Germany	22	55	13	9	1	100			
India	28	42	11	11	9	100			
Italy	55	31	7	4	2	100			
Japan	21	42	29	8	1	100			
Malaysia	37	33	18	11	1	100			
Netherlands	28	41	20	10	1	100			
Poland	34	39	21	3	2	100			
Russia	25	43	20	9	3	100			
Singapore	26	39	26	7	2	100			
South Korea	31	54	13	2	1	100			
Spain	53	31	11	4	1	100			
Sweden	16	39	29	15	1	100			
Taiwan	25	53	17	4	0	100			
United Kingdom	18	37	31	12	1	100			
United States	24	35	17	23	1	100			

	Q39. How often do you see, hear or read something in the news about science — often, sometimes, rarely or never?							
	Often	Sometimes	Rarely	Never	DK/Refused	Total		
Australia	48	31	15	5	1	100		
Brazil	25	35	23	15	2	100		
Canada	51	34	11	3	1	100		
Czech Republic	22	46	28	3	1	100		
France	40	32	18	8	2	100		
Germany	44	33	18	5	0	100		
India	24	35	17	18	6	100		
Italy	43	34	16	6	0	100		
Japan	24	48	22	5	0	100		
Malaysia	26	42	24	7	0	100		
Netherlands	45	34	15	5	0	100		
Poland	22	41	29	5	2	100		
Russia	19	31	35	15	0	100		
Singapore	29	39	23	6	2	100		
South Korea	23	60	13	4	1	100		
Spain	40	35	18	6	0	100		
Sweden	43	34	20	3	0	100		
Taiwan	19	35	42	3	1	100		
United Kingdom	42	34	14	9	1	100		
United States	52	30	12	6	0	100		

	Q40. Overall, how would you rate the job news media do in covering science? Are the news media doing a very good job, a somewhat good job, a somewhat bad job or a very bad job?							
	Very good job	Somewhat good job	Somewhat bad job	Very bad job	DK/Refused	Total		
Australia	5	55	28	9	4	100		
Brazil	12	65	12	5	7	100		
Canada	7	59	22	8	4	100		
Czech Republic	7	63	20	3	7	100		
France	8	54	24	10	4	100		
Germany	8	61	22	5	3	100		
India	34	40	6	3	16	100		
Italy	10	59	20	7	3	100		
Japan	6	61	23	5	5	100		
Malaysia	25	60	10	4	1	100		
Netherlands	5	64	25	4	2	100		
Poland	5	68	13	2	13	100		
Russia	7	52	18	6	17	100		
Singapore	20	60	10	4	6	100		
South Korea	12	64	15	5	4	100		
Spain	6	41	36	13	3	100		
Sweden	6	60	25	5	4	100		
Taiwan	12	48	23	13	3	100		
United Kingdom	7	57	23	9	4	100		
United States	8	44	25	19	3	100		

	Q41a. Thinking about news reports of scientific research findings, do you think the following is a problem or is it not a problem? a. the public doesn't know enough about science to really understand research findings covered in the news						
	Yes, this is a problem	No, this is not a problem	DK/Refused	Total			
Australia	76	20	3	100			
Brazil	68	25	7	100			
Canada	77	20	2	100			
Czech Republic	59	31	10	100			
France	76	20	4	100			
Germany	74	25	2	100			
India	47	31	22	100			
Italy	80	16	5	100			
Japan	55	39	6	100			
Malaysia	60	38	1	100			
Netherlands	74	25	1	100			
Poland	58	29	13	100			
Russia	53	39	8	100			
Singapore	61	33	7	100			

	Q41a. Thinking about news reports of scientific research findings, do you think the following is a problem or is it not a problem? a. the public doesn't know enough about science to really understand research findings covered in the news							
	Yes, this is a problem	No, this is not a problem	DK/Refused	Total				
South Korea	72	24	4	100				
Spain	82	16	2	100				
Sweden	81	16	3	100				
Taiwan	78	21	2	100				
United Kingdom	73	24	3	100				
United States	77	21	2	100				

	Q41b. Thinking about news reports of scientific research findings, do you think the following is a problem or is it not a problem? b. the news media oversimplify scientific research findings						
	Yes, this is a problem						
Australia	57	37	6	100			
Brazil	49	42	8	100			
Canada	53	41	6	100			
Czech Republic	44	42	14	100			
France	57	36	7	100			
Germany	48	47	4	100			
India	38	38	24	100			
Italy	47	43	9	100			
Japan	49	40	10	100			
Malaysia	51	48	1	100			
Netherlands	46	52	2	100			
Poland	41	39	20	100			
Russia	31	53	16	100			
Singapore	44	48	8	100			
South Korea	65	30	5	100			
Spain	66	30	5	100			
Sweden	47	47	6	100			
Taiwan	80	17	4	100			
United Kingdom	51	45	4	100			
United States	59	37	4	100			

	Q41c. Thinking about news reports of scientific research findings, do you think the following is a problem or is it not a problem? c. science researchers overstate the implications of their research findingsYes, this is a problemNo, this is not a problemDK/RefusedTotal					
Australia	40	54	6	100		
Brazil	48	43	9	100		
Canada	41	53	6	100		
Czech Republic	44	39	18	100		
France	49	40	10	100		
Germany	35	59	6	100		
India	44	32	24	100		
Italy	43	46	12	100		
Japan	40	47	13	100		
Malaysia	45	54	1	100		
Netherlands	49	48	3	100		
Poland	35	44	22	100		
Russia	39	48	13	100		
Singapore	48	41	10	100		
South Korea	69	27	5	100		
Spain	33	62	5	100		
Sweden	46	47	7	100		
Taiwan	85	11	3	100		
United Kingdom	43	50	7	100		
United States	49	46	4	100		

	Q41d. To cla	Q41d. To clarify, which one of these would you say is the biggest problem about news reports of scientific research findings?							
	The public doesn't know enough about science to really understand research findings covered in the news	The news media oversimplify scientific research findings	Science researchers overstate the implications of their research findings	None of these are problems/Don 't know if problems	Inconsistent on Q41a-c and Q41d	DK/Refused on Q41d	Total		
Australia	52	23	11	13	0	1	100		
Brazil	52	13	13	20	0	2	100		
Canada	57	18	11	13	0	2	100		
Czech Republic	47	12	14	27	0	1	100		
France	59	16	9	12	2	2	100		
Germany	57	15	8	18	1	1	100		
India	27	16	20	33	0	5	100		
Italy	61	15	10	10	2	1	100		
Japan	39	21	15	23	0	2	100		
Malaysia	42	21	15	22	0	0	100		
Netherlands	53	15	13	16	3	1	100		
Poland	45	14	9	31	0	1	100		
Russia	41	8	15	34	0	2	100		
Singapore	39	13	20	24	3	1	100		
South Korea	43	21	26	8	0	2	100		
Spain	58	25	5	10	2	1	100		
Sweden	60	15	13	10	0	2	100		
Taiwan	36	26	30	5	0	3	100		
United Kingdom	54	17	9	16	2	1	100		
United States	53	19	16	11	0	1	100		

	Q42. Which of these statements comes closer to your view, even if neither is exactly right?						
	As (nationality group), we can always find ways to solve our problems and get what we want	(survey public) can't solve many of its important problems	DK/Refused	Total			
Australia	67	30	3	100			
Brazil	34	63	3	100			
Canada	66	30	4	100			
Czech Republic	51	47	3	100			
France	45	49	7	100			
Germany	37	61	3	100			
India	63	22	16	100			
Italy	29	68	3	100			
Japan	37	58	5	100			
Malaysia	60	39	1	100			
Netherlands	53	46	1	100			
Poland	48	47	5	100			
Russia	50	47	4	100			
Singapore	71	24	5	100			
South Korea	73	25	2	100			
Spain	47	49	4	100			
Sweden	49	48	4	100			
Taiwan	55	41	4	100			
United Kingdom	48	48	4	100			
United States	65	32	3	100			

	Q43. Which of these do you think is the better way to solve (survey public's) most pressing problems, even if neither is exactly right?						
	Rely more on people who are considered experts about the problems, even if they don't have much practical experience	Rely more on people with practical experience with the problems, even if they aren't considered experts	DK/Refused	Total			
Australia	25	70	6	100			
Brazil	41	50	9	100			
Canada	28	66	7	100			
Czech Republic	24	73	4	100			
France	27	66	7	100			
Germany	19	77	4	100			
India	31	47	22	100			
Italy	36	56	8	100			
Japan	21	76	4	100			
Malaysia	39	59	2	100			
Netherlands	22	75	2	100			
Poland	29	64	7	100			
Russia	24	69	8	100			
Singapore	28	62	10	100			
South Korea	31	66	3	100			
Spain	30	64	6	100			
Sweden	26	66	8	100			
Taiwan	27	63	10	100			
United Kingdom	29	65	6	100			
United States	28	66	6	100			