

# A RANKING OF THE MOST ANTI-SCIENCE COUNTRIES

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### ABSTRACT

This paper presents the results of a study of opinion on attitude toward whether the world is better off or worse off because of science and technology. The most recent wave of World Values Survey data was used. Countries were ranked by mean score. The sample size was gathered in 60 countries and had more than 86,000 participants. Comparisons were also made by gender, age and religion.

Key Words: science, technology, attitude, ranking, gender, age, religion, demographics

JEL Codes: A13, D6, I3, J16, O3, Z12

### **INTRODUCTION**

This paper presents the results of a study of opinion on attitude toward whether the world is better off or worse off because of science and technology. The most recent wave of World Values Survey data was used. Countries were ranked by mean score. The sample size was gathered in 60 countries and had more than 86,000 participants. Comparisons were also made by gender, age and religion.

### METHODOLOGY

The data used in this study were taken from the Human Beliefs and Values (HBV) surveys. Data for these surveys were collected by social scientists all over the world and cover a wide range of issues relating to perceptions of life, environment, work, family, politics and society, religion and morale and national identity. The present study analyzes the data reflecting attitudes on whether science and technology make the world a better or a worse place. The question asked: All things considered, would you say that the world is better off, or worse off, because of science and technology?. Please tell me which comes closest to your view on this scale: 1 means that "the world is a lot worse off," and 10 means that "the world is a lot better off".

Respondents were not asked the reason for their view, which makes it impossible to delve

into their reasoning. Determining the reasoning behind their views is the subject of some future

study.

Data were gathered from 60 countries. The total sample size was 86,845.

The next section reports on the findings.

### **FINDINGS**

Table 1 ranks the countries by mean score, from most negative view of science and

technology to most positive. Hong Kong and Taiwan had a significantly more negative view of

science and technology than did mainland China.

#### Table 1

Ranking Attitude toward Science and Technology by Country (1 = the world is a lot worse off: 10 = the world is a lot better off.)

(1 = the world is a lot worse off;  10 = the world is a lot better off.)					
Rank	Country	n	Mean	S.D.	
1	Tunisia	1167	5.87	3.46	
2	Chile	987	5.98	2.39	
3	Lebanon	1200	6.12	2.52	
4	Colombia	1499	6.16	2.78	
5	Philippines	1200	6.18	3.02	
6	Peru	1170	6.26	2.55	
7	Brazil	1452	6.31	3.03	
8	Haiti	1937	6.35	3.34	
9	Palestine	982	6.40	2.73	
10	Cyprus	992	6.53	2.34	
11	Uruguay	953	6.58	2.37	
12	Mexico	1993	6.64	3.05	
13	Argentina	992	6.67	2.02	
13	Thailand	1171	6.67	2.22	
15	Ghana	1552	6.69	2.50	
16	Japan	2023	6.80	1.86	
17	Slovenia	1050	6.86	2.18	
18	India	4006	6.90	2.30	
19	Ecuador	1200	6.91	2.24	
20	Jordan	1194	6.92	2.53	
21	Nigeria	1759	6.93	2.02	
22	Romania	1428	6.94	2.69	

23	Taiwan	1166	6.96	2.12
24	Hong Kong	993	6.97	2.04
24	Trinidad & Tobago	976	6.97	2.61
26	Algeria	1115	7.00	2.61
27	Singapore	1970	7.05	1.75
28	South Africa	3414	7.08	2.10
29	Spain	1150	7.13	1.79
30	Malaysia	1300	7.17	2.16
31	Netherlands	1889	7.22	1.47
32	Armenia	1026	7.24	2.55
33	New Zealand	816	7.28	2.01
34	Germany	2025	7.33	2.19
35	Zimbabwe	1499	7.34	2.05
35	United States	2193	7.34	2.16
37	South Korea	1194	7.36	1.81
38	Sweden	1171	7.55	2.01
39	Belarus	1525	7.59	1.96
40	Estonia	1506	7.65	1.75
41	Iraq	1177	7.66	2.00
41	Kyrgyzstan	1496	7.66	2.27
43	Morocco	1029	7.68	2.37
43	Turkey	1557	7.68	1.81
45	Kuwait	1255	7.70	2.54
46	Ukraine	1500	7.71	2.08
47	Georgia	1147	7.74	2.18
48	Russia	2333	7.75	2.05
49	Egypt	1523	7.77	1.98
50	Australia	1464	7.85	2.08
51	Pakistan	1200	7.86	1.98
52	Poland	931	7.93	2.13
53	Yemen	876	8.08	2.25
54	Qatar	1058	8.17	2.37
55	Rwanda	1527	8.27	1.47
56	China	1876	8.33	1.41
57	Libya	2064	8.37	2.42
58	Kazakhstan	1500	8.50	1.76
59	Azerbaijan	1002	8.56	1.94
60	Uzbekistan	1495	8.87	1.51
	Total Sample	86,845	7.25	2.35

### **RESULTS BY GENDER**

Table 2 shows the results by gender. The two-tailed p value is <0.0001, which means that women are significantly more supportive of the notion that the world is a lot worse off as a result of science and technology.

Table 2Results by Gender(1 = the world is a lot wo	rse off; 10 = the v	world is a lot better	• off.)
	MALE	FEMALE	
Mean	7.32	7.18	
Standard Deviation	2.35	2.35	
n	42,703	44,073	
p <0.0001			

### **RESULTS BY AGE**

Table 3 shows the results by age. A comparison of mean scores shows that younger individuals are more favorably disposed to science and technology than are older people. Table 4 shows the p value comparisons. All differences between age groups are significant.

Table 3					
Results by A	ge				
(1 = the world)	(1 = the world is a lot worse off; 10 = the world is a lot better off.)				
AGE	MEAN	S.D.	Ν		
Up to 29	7.33	2.37	25,559		
30-49	7.26	2.34	34,298		
50+	7.15	2.35	26,844		

Table 4 Comparison of p Values (1 = the world is a lot worse off; 10 = the world is a lot better off.) 30.49 50+

	30-49	JUT
Up to 29	0.0003	<0.0001
30-49		<0.0001

### **RESULTS BY RELIGION**

Table 5 shows the results ranked by religion. A religion was included if the sample size was at least 100. Ranking is from least supportive of the position that the world is a lot better off because of science and technology to most supportive.

The results are somewhat interesting. The five religious groups with the least favorable attitude toward science and technology were all Christian groups, while a few other Christian

groups were among the most supportive of science and technology. Taoists in Singapore were less supportive than Daoists in Taiwan. Those who identified as Muslims had a mean score of 7.38, whereas those who identified as Sunni (one branch of Islam) had a mean score of 8.18. Those who identified as Shia had a mean score of 7.52. This group was not included in the ranking because only 54 respondents identified as Shia, which was below the 100-participant cutoff. Jews and Sunni Muslims were the two groups that had the most support for science and technology.

Table 5

### **Results by Religion**

<u>È</u>	$\frac{10}{10} \text{ is a lot worse off; } 10 = \text{the worse off; } 10 = the worse $		· /	
RANK	RELIGION	MEAN	S.D.	N
1	Jehovah Witnesses	6.39	2.34	122
2	Christian	6.57	2.41	613
3	Anglican	6.60	3.13	684
4	Pentecostal	6.62	2.63	153
5	Evangelical	6.68	2.64	1394
6	Taoist (Singapore)	6.69	1.69	175
7	Armenian Apostolic Church	6.84	2.94	1581
8	African Traditional Religion	6.86	2.26	155
9	Roman Catholic	6.90	2.44	14,675
10	Evangelical (South Africa)	6.91	2.29	380
11	Hindu	6.94	2.29	3821
12	Daoism (Taiwan)	6.97	2.06	259
12	Dutch Reformed Church	6.97	1.39	126
14	Buddhist	6.99	2.03	3603
14	Native Folk Religion	6.99	1.94	208
16	Protestant	7.21	2.21	5405
17	Independent African Church	7.30	1.89	536
18	Muslim	7.38	2.45	17,674
19	Presbyterian	7.47	2.06	107
20	Church of Sweden	7.66	1.83	680
21	Jew	7.95	2.01	169
22	Sunni	8.18	2.28	3134

(1 = the world is a lot worse off; 10 = the world is a lot better off.)

### **CONCLUDING COMMENTS**

Much more could be said about this topic. Unfortunately, respondents were not asked why they chose the answer they did. Further research that asks for the reasoning behind the answers would be fruitful. It is also likely that members of the same religion have different mean scores if compared by country. For example, Roman Catholics in the United States might have significantly different views on science and technology than Roman Catholics in Spain or the Philippines. Such comparisons were not made in the present study due to space and time constraints.

### REFERENCES

World Values Surveys, Wave 6. http://www.worldvaluessurvey.org/

### **ABOUT THE AUTHOR**

Robert W. McGee is an accounting professor and best-selling novelist who has published 59 nonfiction books and more than 700 scholarly articles. He is an attorney and CPA who has lectured or worked in more than 30 countries, and has earned 13 doctorates from universities in the United States and four European countries. The Social Science Research Network has ranked him as high as #2 in the world All-Time among accounting professors and #30 in the world All-Time among all social scientists. Various studies have ranked him #1 in the world for both business ethics and accounting ethics scholarship. He is a world champion in taekwondo, karate and kung fu, and a world silver medalist in tai chi. He has been inducted into the United States Martial Arts Hall of Fame. He spends most of his time in Fayetteville, North Carolina, Southeast Asia and Europe. Information about his novels can be found at <a href="http://robertwmcgee.com">http://robertwmcgee.com</a>. Some of his scholarly papers may be found at <a href="http://ssrn.com/author=2139">http://ssrn.com/author=2139</a>.