

Attitudes about science



Out of the Box

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THE UNITED STATES is widely seen as an innovative, high-tech country with superb developments in science (from the first man on the moon, to computing, and now AI and robotics). Most of the world's impression of America's attitude about science is positive, with strength in knowledge, respect and support for science.

But is that true? Research!America, the largest not-for-profit public education and advocacy alliance in the United States, routinely conducts polls on science awareness, and I just came across last year's results, which has some interesting facts and surprises.

There are 11 features/questions in the survey. A few of the questions reflected a positive view of the US public on science, in particular on issues such as "scientists as the most trusted spokespersons for science" (82 percent) and "scientists should play major role in shaping public policy" (83 percent).

As for "institutions with most confidence in," scientific institutions ranked fourth at 25 percent, while the top three went to military (37 percent), small business (27 percent), and the police (26 percent).

Eighty percent of Americans also think it is "important to assign high priority to health research and innovation businesses."

There are a few surprises. For starters, 81 percent of Americans cannot name a living scientist – only a few named the likes of Steven Hawking and James Watson.

I asked a few people at HKUST the same question, and most said people in Hong Kong could name Charles Kao in addition to Hawking. If that's true, that'd put Hong Kong ahead of the United States in science awareness – but nobody at the table mentioned scientists such as Shing-Tung Yau, Daniel Tsui, Tsui Lap-chee, Dennis Lo, or Nancy Ip. Maybe we, the Hong Kong science community, should not gloat too much.

Also interesting are the questions on politicians and science: only 11 percent showed much confidence in the presidency – already ranked No 1, followed by 10 percent in the criminal justice system, 8 percent in TV and newspapers, and a mere 7 percent in Congress. Half were not sure about science funding and progress under President Donald Trump. Those who had a positive view are mostly Republicans.

Most US scientists I know hold a pessimistic view on this issue under Trump – perhaps it is because most of them are Democrats (generally US scientists tend to be Democrats). Clearly, the US society is split, not unlike Hong Kong. I wonder what the answers may be if the same questions on politics and science were asked here.

Our government and the Legislative Council have been generally supportive of science, mainly through supporting basic research in universities. The government can do more, but I am not sure

how the long view of "investing" in science would prevail politically over shorter-term gains, such as commercialization of scientific results. Science is probably not a high priority with Legco; its support for research is mainly indirect, as a way of attracting and retaining top faculty members who educate students.

What we need more is science advocacy – or for the science community to explain the long-term benefits of public support of science. This includes science popularization and communicating with the public.

The Academy of Sciences of Hong Kong, the Hong Kong Academy of Engineering Sciences and the Hong Kong Institution of Science are more proactive recently, including participating in the InnoCarnival at the HKSTP, organizing public talks on science and mentoring high-school students. I hope this trend will continue.

I wonder what a similar survey in the mainland would produce. The mainland government has been investing major resources in basic science over the last few decades. In terms of hardware (scientific equipment), China is now on a par with America.

Nurturing talents in science, developing an ecosystem, and a culture and value for science remain distant goals but the government is working on them very proactively. I would expect a Chinese survey to generate much more positive results: I bet a much higher percentage of Chinese can name at least Tu Youyou or Charles Kao as living scientists, that they are strongly supportive of what the government is doing in science, and that they have high respect for scientists.

But that's just a guess and I'd be very interested in an actual survey in China.