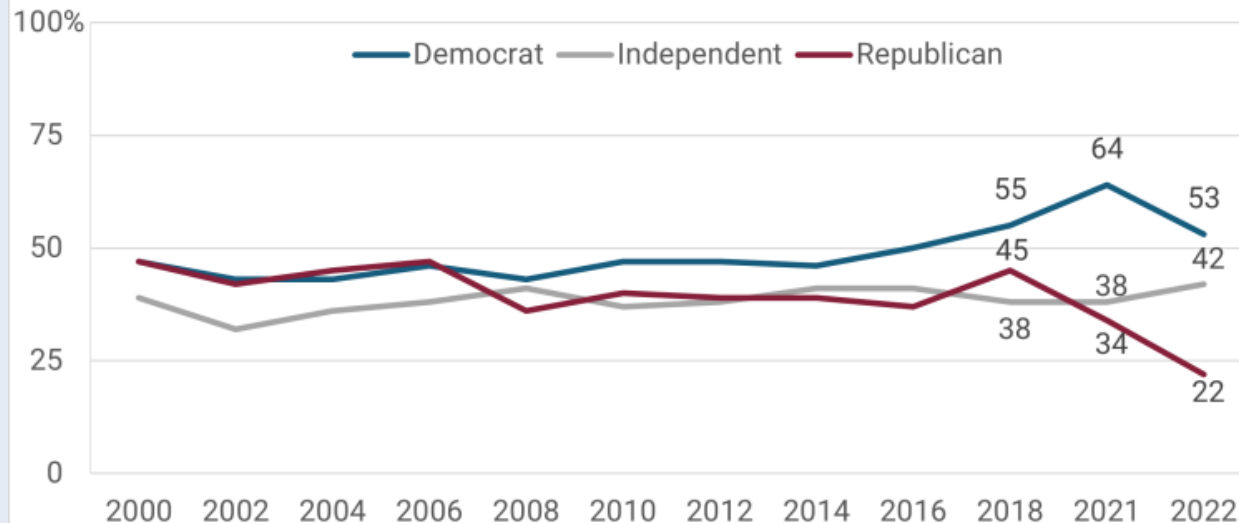


Science Journalism

Trust in science has become a divided issue:

Large partisan gap on confidence in the scientific community remained as Republicans continued to lose trust.

Percent of adults who had a great deal of confidence



Question: [Scientific community] I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

Source: General Social Survey, the latest conducted May 5 - December 20, 2022.

Science Journalism

- **A definition of journalism:** A set of transparent, independent procedures aimed at gathering, verifying & reporting truthful information to citizens in a democracy
- **A definition of science:** A set of transparent, independent procedures aimed at gathering & testing information to explain and understand phenomena in the natural world.

Science Journalism

Why isn't news coverage of science more effective?

- Some journalists don't fully understand it
- Some journalists don't explain it well
- Some journalists assume it's unassailable
- Some journalists don't look at it critically
- Some journalists don't address public concerns

Science Journalism

Even knowledgeable science reporters can have issues:

- They're not always great writers
- They sometimes use too much scientific jargon
- They're sometimes not critical enough
- They sometimes have a narrow point of view
- They're not experts on everything

Science Journalism

**Biggest issue with audience knowledge about science:
Science is an ongoing process**

- There is often no single, correct answer for all time
- Not understood by public, rarely emphasized in reporting
- Continual testing and questioning existing research
- New studies lead to reevaluating previous assumptions & practices
- Influencers can portray evolution as contradiction
- Can promote doubt about all science
- For uninvolved audience, simple (sometimes misguided) ideas are easier to grasp than complex realities
- This has been exploited in the digital age

Science Journalism

Scientific literacy:

- Basic definition – public's general understanding of science
- Not high, especially among people without higher education
- How much should the average person know?
- Who decides this?
- Do journalists' attempts at education actually work?
- Heavy-handed treatment can backfire
- Politicized topics can make people dig their heels in
- What should journalists do?

Science Journalism

Some tidbits from Chapter 11 of the textbook:

- **Peer review**

- Virtually all scientific studies go through this process
- Veteran scholars verify the legitimacy of the study
- Aim is to keep quality high, maintain credibility of field
- All your professors go through this regularly

- **Causation and correlation**

- Causation: A causes B
- Correlation: A has something in common with B
- [Correlation doesn't imply causation](#) – spurious correlation
- Too often news reporting can assume causality where none exists
- Social media has made this much, much worse

Science Journalism

Some tidbits from Chapter 11 of the textbook:

- **Numerator and denominator**

- Math terminology applied to other areas
- Numerator: Number of instances of something
- Denominator: Reason behind those instances
- [Reporting one without the other can be misleading](#)
- Social media has made this much worse

- **Relative risk vs. absolute risk**

- Relative: Chance that X will happen to tested group vs. control
- Absolute: Chance that X will happen to a whole population
- Percentages can distort what results really mean
- Journalists and the public can be misled
- Social media has made this much worse

Science Journalism

Some tidbits from Chapter 11 of the textbook:

- **Use of population samples**

- Medicine: Measure results of new treatments, procedures
- Experimental: Test behaviors, preferences, etc.
- Statistical: Surveys – probability sampling
- In all cases, larger sample size is better
- This can be ignored at times in news stories about studies

- **‘Dumbing down’ results for the public**

- Simplifying & condensing – make results more understandable
- Use of more straightforward language, less jargon
- Inherent loss of full meaning of study results
- Is the term condescending or realistic?
- Do scientists want their work understood by the public?