

ASA's p-value statement is necessary. In my opinion, such a necessity might be due to its "political" status in public discussion. Compared to other statistical jargon like confidence intervals and OLS, p-value is easier to convey to and interpret by the public as the concept itself is pretty straightforward. Therefore, researchers, politicians, and reports tend to adopt p-value when presenting and reporting, and the public becomes more familiar with the p-value. When the public understands p-value more, the research community will use and report it more. This serves as a complete cycle. As a result, p-value becomes a specific language when the science community and policymakers try to make their stances and communicate with the public. Meanwhile, when translating scientific research and findings to everyday languages during communication, concise is needed. The comparable complexity of p-value thus naturally gets compromised. The authentic meaning of p-value being a measure between a data set and associated hypothesis model then distorts, becoming a measure of the proposed hypothesis model itself. In brief, p-value getting politicized is why I think the ASA statement is necessary — to caution both the experts (policymakers, health industry carers, and so on) and then the public. Establishing and publicizing this statement can prevent misuse in the communicative process and thus makes both sides become more aware.

Additionally, in the scholar communities, many researchers tend to perform p-hacking — testing a lot of variables but reporting only those p-values that satisfy standards. As what's stated in the article, those that fail to meet p-value standards might also help interpret some phenomena, generating plausible explanations. Because of such pressure of publicizing "recognized" studies, p-hacking and data dredging are prevalent. Such prevalence, however, is detrimental to scientific studies. However, the problem is not within the p-value per se. It's because scholars facing the stress of publication and producing "beneficial" results. As a result, they choose to manipulate this measure and gain influence from the public. Though the p-value statement might be helpful to suppress certain dishonorable actions, serving as a signal to regulate academic integrity, in the long term it might not be stable. Instead of p-value regulations, there might be confidential interval issues/abuse. Therefore, the entire academic community should also pay attention to larger abstract issues, not just p-value per se.

Finally, admittedly p-value is easy for communicating to the public, I think it is significant to dismantle the natural tendency to associate p-value with scientific/social significance. It would be beneficial to both the scientific community and the public where neither one would blame the other for misunderstanding due to the cursory explanation and abusive adoption of p-value. The clear statement by ASA will help it avoid misunderstandings. In nutshell, while reporting and presenting p-value in the public domain may be easy and effective, using it without careful explanation and caution could cause public trust issues. As a result, publishing the p-value statement is very necessary.