

No. 22-451

In The
Supreme Court of the United States

LOPER BRIGHT ENTERPRISES, et al.,

Petitioners,

v.

GINA RAIMONDO, in her official capacity as
Secretary of Commerce, et al.,

Respondents.

**On Writ of Certiorari to the
United States Court of Appeals
for the District of Columbia**

**BRIEF OF *AMICI CURIAE*
THE AMERICAN ASSOCIATION FOR
THE ADVANCEMENT OF SCIENCE,
THE AMERICAN SOCIETY FOR PHARMACOLOGY
AND EXPERIMENTAL THERAPEUTICS, AND
THE ECOLOGICAL SOCIETY OF AMERICA
IN SUPPORT OF RESPONDENTS**

D. ALICIA HICKOK
FAEGRE DRINKER BIDDLE & REATH LLP
One Logan Square, Suite 2000
Philadelphia, PA 19103-6996
(215) 988-3364 (telephone)
(215) 988-2757 (facsimile)
alicia.hickok@faegredrinker.com
*Counsel for Amici Curiae
The American Association for the
Advancement of Science, The American
Society for Pharmacology and
Experimental Therapeutics, and
The Ecological Society of America*

September 22, 2023

TABLE OF CONTENTS

	Page
I. STATEMENT OF THE INTEREST OF <i>AMICI CURIAE</i>	1
II. SUMMARY OF ARGUMENT	3
III. ARGUMENT	6
A. Pre- <i>Chevron</i> Principles Were Given Effect in <i>Chevron</i> and Other Doc- trines	6
B. The Fact Development and Analysis that Agencies Perform is Essential to the Court’s Reviewing Function	9
1. Specially-competent fact developers have the means to develop a record that courts do not have	10
2. Specially-competent fact developers have the means to stay current and address dynamic technologies and science in ways courts cannot	11
C. Judicial Efficiency and Judicial Hu- mility Are Best Served by Holding Agencies Accountable for Their Facts and Analysis and Then Reviewing the Records They Develop for Reasonable- ness	12
D. Science Invites Continuous Question- ing, Yet Must Be Reliable to Be of Use to Agencies—and Courts—as a Predi- cate for Review	16

TABLE OF CONTENTS—Continued

	Page
E. <i>Chevron</i> , Properly Interpreted, Has Given Room for the Court to Fulfill its Obligations to Construe Statutes and Ensure Reasonableness in Their Applications	20
IV. CONCLUSION	22

TABLE OF AUTHORITIES

	Page
CASES	
<i>Am. Elec. Power Co., Inc. v. Connecticut</i> , 564 U.S. 410 (2011)	10
<i>Balt. Gas & Elec. Co. v. Nat'l Res. Def. Council</i> , 462 U.S. 87 (1983)	7, 8
<i>Barnhart v. Walton</i> , 535 U.S. 212 (2002)	8
<i>Becerra v. Empire Health Found.</i> , 142 S.Ct. 2354 (2022)	9
<i>Bowen v. Am. Hosp. Ass'n</i> , 476 U.S. 610 (1986)	9
<i>Brown v. Davenport</i> , 142 S.Ct. 1510 (2022)	19
<i>Chevron U.S.A., Inc. v. Nat'l Res. Def. Council</i> , 467 U.S. 837 (1984)	2-8, 10, 13, 15, 19-23
<i>Cuomo v. The Clearing House Ass'n, LLC</i> , 557 U.S. 519 (2009)	21
<i>Daubert v. Merrell Dow Pharmaceuticals, Inc.</i> , 509 U.S. 579 (1993)	2
<i>Edwards' Lessee v. Darby</i> , 25 U.S. 206 (1827)	6
<i>Elgin v. Dep't of Treasury</i> , 567 U.S. 1 (2012)	14
<i>Encino Motorcars, LLC v. Navarro</i> , 579 U.S. 211 (2016)	10
<i>Epic Sys. Corp. v. Lewis</i> , 138 S.Ct. 1612 (2018)	21

TABLE OF AUTHORITIES—Continued

	Page
<i>Far E. Conf. v. United States</i> 342 U.S. 570 (1952)	7, 22
<i>FDA v. Brown & Williamson Tobacco Corp.</i> , 529 U.S. 120 (2000)	21
<i>Life Techs. Corp. v. Promega Corp.</i> , 580 U.S. 140 (2017)	13
<i>MCI Telecomms. Corp. v. AT&T Co.</i> , 512 U.S. 218 (1994)	21
<i>Michigan v. EPA</i> , 576 U.S. 743 (2015)	20
<i>Nat’l Cable & Telecomms. Ass’n, Inc. v.</i> <i>Gulf Power Co.</i> , 534 U.S. 327 (2002)	15, 22
<i>Nat’l Collegiate Athletic Ass’n v. Alston</i> , 141 S.Ct. 2141 (2021)	12, 14
<i>Nat’l Pork Producers Council v. Ross</i> , 598 U.S. 356 (2023)	14
<i>Nat’l R.R. Passenger Corp. v. Bos. and Me. Corp.</i> , 503 U.S. 407 (1992)	9
<i>Sackett v. Environmental Protection Agency</i> , 598 U.S. 651 (2023)	3
<i>Sessions v. Dimaya</i> , 138 S.Ct. 1204 (2018)	14
<i>Sullivan v. Everhart</i> , 494 U.S. 83 (1990)	14
<i>Teva Pharms., Inc. v. Sandoz, Inc.</i> , 574 U.S. 318 (2015)	13, 15, 20, 22

TABLE OF AUTHORITIES—Continued

	Page
<i>United States v. Morgan</i> , 307 U.S. 183 (1939)	7, 22
<i>United States v. Haggard Apparel Co.</i> , 526 U.S. 380 (1999)	15
<i>United States v. Home Concrete & Supply, LLC</i> , 566 U.S. 478 (2012)	8
<i>United States v. Moore</i> , 95 U.S. 760 (1878)	6
<i>Virginia v. Moore</i> , 553 U.S. 164 (2008)	15
<i>West Virginia v. EPA</i> , 142 S.Ct. 2587 (2022)	21
 STATUTES, RULES & REGULATIONS	
88 Fed. Reg. 56708 (Aug. 18, 2023)	18
88 Fed. Reg. 59942 (Aug. 30, 2023)	11
5 U.S.C. § 312	17
42 U.S.C. § 4365	10
 OTHER AUTHORITIES	
AAAS, <i>AAAS Statement on White House Executive Order Limiting Federal Advisory Committees</i> , June 14, 2019, https://www.aaas.org/sites/default/files/2019-06/AAAS%20Statement%20on%20White%20House%20Executive%20Order%20Limiting%20Federal%20Advisory%20Committees.pdf	17

TABLE OF AUTHORITIES—Continued

	Page
AAAS, <i>Artificial Intelligence and the Courts: Materials for Judges</i> , https://www.aaas.org/ai2/projects/law/judicialpaper	12
AAAS, <i>Scientific Organizations Statement on Science and Government, Policy and Public Statements</i> , June 27, 2017, https://www.aaas.org/sites/default/files/s3fs-public/Scientific%20Organizations%20Statement%20on%20Science%20and%20Government_6.27.2017.pdf	17
Richard V. Puyat, “ <i>Science and Environmental Policy-Making Them Compatible</i> ” <i>Bioscience</i> Vol. 49 No. 4.....	16
<i>Some Reflections on the Reading of Statutes</i> , 47 Colum. L. Rev. 527 (1947)	9

I. STATEMENT OF THE INTEREST OF *AMICI CURIAE*¹

The **American Association for the Advancement of Science** (“AAAS”) is a non-profit, non-partisan scientific membership society that, among other objectives, seeks to increase public understanding and appreciation of the importance and promise of science in advancing human progress. Founded in 1848, AAAS is the world’s largest general scientific organization, with over 270 affiliate organizations and more than 120,000 scientists, engineers, educators, policy makers and interested citizens among its members. AAAS is also the publisher of the *Science* family of journals, which are among the most frequently cited scientific journals in the world.

AAAS has long advocated for a robust science-policy interface, informed by the best available scientific evidence, as essential to our republic and to human progress generally. The AAAS files this brief because of its interest in supporting informed decisionmaking based on rigorous scientific and technical information, with policy—and particularly regulatory policy—that reflects evidence-based decisions in the face of dynamic science and technology. Relatedly, AAAS files this brief to advance the principle that courts should avoid reliance on putatively scientific evidence that does not, in fact, reflect trustworthy scientific methods—something

¹ Pursuant to United States Supreme Court Rule 37, no one other than the *amici curiae* and their counsel authored the brief in whole or in part, and no party or party counsel funded the brief in whole or in part.

that could lead to unjust decisions and to efforts to discredit both science and the judiciary. It was toward that end that AAAS weighed in on *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), to stress that courts have the authority and the responsibility to exclude expert testimony that is based upon unreliable or misapplied methodologies. Likewise, here, under *Chevron U.S.A., Inc. v. Nat'l Res. Def. Council*, 467 U.S. 837 (1984), courts have the authority and the responsibility to review the record built by the agency and the decisions it makes on the basis of that record. In both litigation and regulation, scientists have a strong interest in assuring that their findings are understood and properly used by others in society, not least by America's courts of law. For that reason, AAAS submits this *amicus* brief in support of Respondents.

The American Society for Pharmacology and Experimental Therapeutics ("ASPET"), founded in 1908, is an international 4,000-member non-profit pharmacology society that advances the science of drugs and therapeutics to accelerate the discovery of cures for disease. ASPET members conduct basic and clinical pharmacological research in academia, industry, and the government. ASPET publishes four journals with the most recent discoveries in pharmacology and related fields. ASPET supports the dissemination and use of pharmacological research to promote the best available science in developing regulations and legislation.

The Ecological Society of America ("ESA"), founded in 1915, is the world's largest community of

professional ecologists and a trusted source of ecological knowledge, committed to advancing the understanding of life on Earth. The 8,000-member, non-profit, non-partisan Society publishes six journals, which discuss the most recent discoveries in ecology. ESA is actively involved in the dissemination and use of ecological research, setting educational standards for the science of ecology, and promoting the use of the best available science in developing regulations (including filing an *amicus* brief with eleven other scientific and international science societies in *Sackett v. Environmental Protection Agency*, 598 U.S. 651 (2023)).

II. SUMMARY OF ARGUMENT

The question that the Court accepted, namely, “whether the Court should overrule *Chevron* or at least clarify that statutory silence concerning controversial powers expressly but narrowly granted elsewhere in the statute does not constitute an ambiguity requiring deference to the agency,” is a broad one, potentially implicating all agencies’ decisions (including adjudications), even though the facts before the Court pertain more narrowly to regulations that require those who operate certain fishing boats to pay for monitors. Therefore, AAAS respectfully provides this brief to the Court to say that the long-standing *Chevron* doctrine should be reaffirmed, as agencies with scientific and technical expertise are often best placed to handle the rapidly changing nature of science and technology—as well as to take into account and balance the input of myriad stakeholders—in order to develop programs

and regulations for fulfilling their statutorily-based missions (e.g., public safety, health, environmental protection, etc.) in the public interest. Indeed, AAAS and the thousands it represents urge the Court to consider that it is precisely because scientific information is both essential to much decisionmaking (by agencies and courts) and ever-evolving as a field of knowledge that a certain amount of judicial, as well as scientific, humility is prudent. AAAS might add that decades of reliance by companies and citizens on the *Chevron* principle of judicial deference—which itself builds on earlier case law—is something this Court has no need to disturb. In short, agencies are “specially-competent fact-developers”—as discussed in greater detail, below—whose work helps courts and the public and, as such, who have long received, and continue to deserve, judicial deference when they act reasonably to fulfill the mission(s) Congress intended they undertake.

Here, AAAS also notes that although Congress does not always draft statutory language that is as clear and precise as it could be, Congress has taken steps to ensure that agency policies are built upon trustworthy science with multi-stakeholder input. This relationship, or capacity—built on transparency, oversight and access to data and evidence—also allows for the development of policies and regulations when the rapid pace of scientific advancement cannot wait for the passage of laws that have not yet even been construed. The legislative branch is not well-served when it creates laws quickly, but when it ensures that time and deliberation between chambers and with

constituents precedes the signing of a bill into law. Thus, various rapidly developing fields of science and/or technology (e.g., matters of public health or the environment) should not always have to wait for the legislative process to catch up with scientific understanding in order to address an important public good or need.

Finally, at its core, the *Chevron* standard was developed as one of many mechanisms that this Court uses to ensure that it is acting wisely in its assessment of agency action within the context of a statutory scheme. Said differently, the role of a justice or judge as construer of Congressional intent is upheld, not undermined, when there is a full and reliable factual record to inform the application of law. In the face of emerging technologies and complex questions, the question before a court should not be whether well-funded litigants have hired more convincing experts than an agency has. Such a practice could lead to policy that either anticipates or lags behind science, both of which would ultimately require the Court to undo its own decisionmaking. For that reason, the degree of judicial humility that respects a reasonable application of trustworthy scientific expertise is in fact an exercise of judicial authority.

III. ARGUMENT

A. Pre-*Chevron* Principles Were Given Effect in *Chevron* and Other Doctrines.

While the first federal agency, the Department of Foreign Affairs (which became the State Department) was created by Congress in 1789, Office of the Historian, *1789-1899, Administrative Timeline of the Department of State*, <https://history.state.gov/department-history/timeline/1789-1899>, the first regulatory agency (the Interstate Commerce Commission) was not created until a century later, some thirty years after AAAS opened its doors. As the *Chevron* Court recognized, however, even before there were regulatory agencies there was a respect and degree of deference accorded to persons charged with the execution of a statute. See *United States v. Moore*, 95 U.S. 760, 763 (1877); *Edwards' Lessee v. Darby*, 25 U.S. 206, 210 (1827) (both cited in *Chevron*, 467 U.S. at 844 n.14). During the emergence of regulatory agencies, it was understood as a “cardinal principle” that

in construing a statute setting up an administrative agency and providing for judicial review of its action, court and agency are not to be regarded as wholly independent and unrelated instrumentalities of justice, each acting in the performance of its prescribed statutory duty without regard to the appropriate function of the other in securing the plainly indicated objects of the statute. Court and agency are the means adopted to attain the prescribed end, and so far as their duties are defined by the words of the statute, those words

should be construed so as to attain that end through co-ordinated action.

United States v. Morgan, 307 U.S. 183, 190–91 (1939).

Other doctrines—exhaustion of administrative remedies and primary jurisdiction—likewise developed in response to the recognition that

in cases raising issues of fact not within the conventional experience of judges or cases requiring the exercise of administrative discretion, agencies created by Congress for regulating the subject matter should not be passed over. This is so even though the facts after they have been appraised by specialized competence serve as a premise for legal consequences to be judicially defined.

Far E. Conf. v. United States, 342 U.S. 570, 574–75 (1952). Even before *Chevron*, the Court deferred to an agency’s analysis of a technical record that an agency had developed. “A reviewing court must remember that the Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must be at its most deferential.” *Balt. Gas & Elec. Co. v. Nat’l Res. Def. Council*, 462 U.S. 87, 103 (1983). This reflects the Court’s understanding that there is a subtle but important distinction that can exist between an immutable “fact” that judicial proceedings seek, and the often predictive or statistically significant finding(s) provided by science that may involve a degree of uncertainty, and that necessarily are subject to revision

if, in due course, new discoveries or technologies arise in the given “frontier” of science.

The Court should not be tempted by the notion that agencies are somehow pitted against courts when, in fact, both courts and agencies are essential to the fulfillment of Congressional intent, something occasional cases continue to recognize. *See Barnhart v. Walton*, 535 U.S. 212, 220–22 (2002) (Congressional amendment or reenactment of statute in recognition of existing regulation evidence of Congress’s intent, or at least understanding that the interpretation was permissible); *United States v. Home Concrete & Supply, LLC*, 566 U.S. 478, 503 (2012) (Kennedy, J., dissenting) (“Our legal system presumes there will be continuing dialogue among the three branches of Government on questions of statutory interpretation and application.”).

Protecting a space for that interplay—for agencies to discern what is needed, based on the best scientific information then available, to implement Congressional intent, as well as for this Court’s review to ensure that agencies have not acted unreasonably in their decisionmaking—is the predicate for “reasoned decisionmaking” review, which asks whether an agency has “considered the relevant factors and articulated a rational connection between the facts found and the choice made.” *Balt. Gas*, 462 U.S. at 105. Although the *Chevron* Court did not discuss “reasoned decisionmaking” in quite the same way as the Court did in *Baltimore Gas*, *Chevron* was decided against that backdrop, and the Court quickly demanded that the

recognition of Congress' need to vest administrative agencies with ample power to assist in the difficult task of governing a vast and complex industrial Nation carries with it the correlative responsibility of the agency to explain the rationale and factual basis for its decision, even though we show respect for the agency's judgment in both.

Bowen v. Am. Hosp. Ass'n, 476 U.S. 610, 627 (1986) (plurality); see also *Nat'l R.R. Passenger Corp. v. Bos. and Me. Corp.*, 503 U.S. 407, 417–18 (1992) (Kennedy, J.) (“If the text is ambiguous and so open to interpretation in some respects, a degree of deference is granted to the agency, though a reviewing court need not accept an interpretation which is unreasonable.”).

B. The Fact Development and Analysis that Agencies Perform is Essential to the Court's Reviewing Function.

Justice Frankfurter famously said that “when a statute is ‘addressed to specialists, [it] must be read by judges with minds of specialists.’” *Becerra v. Empire Health Found.*, 142 S.Ct. 2354, 2362 (2022) (Kagan, J.), quoting *Some Reflections on the Reading of Statutes*, 47 Colum. L. Rev. 527, 536 (1947). In *Becerra*, the Court found that the agency's allocation between Medicare and Medicaid was supported by “the text and context” of the statute. But in order to have a “mind of [a] specialist[.]” a judge needs to have all of the salient facts carefully articulated before it for comparison with the law. And those facts are best developed by agencies,

which are created by Congress, authorized in scope and purpose by Congress, and answerable to Congress.

1. Specially-competent fact developers have the means to develop a record that courts do not have.

As the Court recognized in *American Electric Power Co. v. Connecticut*, “[f]ederal judges lack the scientific, economic, and technological resources an agency can utilize in coping with issues of this order.” 564 U.S. 410, 428 (2011). They “may not commission scientific studies or convene groups of experts for advice, or issue rules under notice-and-comment procedures inviting input by any interested person, or seek the counsel of regulators in the States where the defendants are located.” *Id.* Agencies **can** hear from all concerned stakeholders and elicit expert input, studying an issue—and the various state attempts to resolve an issue—in a way a court cannot. While some study and dialogue arises organically, some was initiated directly by Congress, such as the EPA’s Science Advisory Board, established in 1978 pursuant to the Environmental Research, Development, and Demonstration Act, 42 U.S.C. § 4365. Indeed, *Chevron* deference is predicated upon the agency’s compilation and analysis of relevant data and its use and explanation of its choice precisely so there can be adequate judicial review. See *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 220–22 (2016) (declining to apply deference).

2. Specially-competent fact developers have the means to stay current and address dynamic technologies and science in ways courts cannot.

Science is constantly becoming more adept at analysis and application, and technology is constantly developing—even when the new developments might cause discomfort or even disruption. Thus, for instance, the work of Copernicus and Galileo came to change how mankind understands how the earth fits into the solar system. Over the centuries, science and technology have revolutionized our everyday lives, in ways that range from medical care transformed by vaccines to eradicate smallpox, to transportation that can traverse distances in hours that formerly took days, to communication from hand-carried messages to the internet.

Currently, of course, there are logistical and regulatory challenges being presented by new, rapidly-evolving artificial intelligence (AI) technologies, with the potential for great benefits and great harms. Congress needs agencies to go before it so that it develops legislation wisely. And the agencies do. *See* United States Copyright Office study, posted in 88 Fed. Reg. 59942 (Aug. 30, 2023); CISA, *Software Must Be Secure by Design, and Artificial Intelligence is No Exception*, Blog, Aug. 18, 2023, <https://www.cisa.gov/news-events/news/software-must-be-secure-design-and-artificial-intelligence-no-exception>. AAAS has also prepared publicly-available materials tailored to courts (both papers and podcasts) about artificial intelligence.

AAAS, *Artificial Intelligence and the Courts: Materials for Judges*, <https://www.aaas.org/ai2/projects/law/judicialpaper>. Accordingly, when Congress does act, it will have agency expertise to help it keep pace, but it will still pass statutes setting forth certain factors—technological, economic, categories of benefit and risk—that the agency ought to consider in its decisionmaking, but leaving space for details to be filled in as knowledge is acquired over time.

Thus, it is important that agencies be given not just the leeway but encouragement and affirmation to address changes in technologies and knowledge with fit regulations to the extent the matters come within their statutory mandates. Indeed, this Court regularly looks at how change impacts its decisionmaking. *See, e.g., Nat'l Collegiate Athletic Ass'n v. Alston*, 141 S.Ct. 2141, 2158 (2021) (“Whether an antitrust violation exists necessarily depends on a careful analysis of market realities. If those market realities change, so may the legal analysis. When it comes to college sports there can be little doubt that the market realities have changed significantly since 1984.”) (citation omitted).

C. Judicial Efficiency and Judicial Humility Are Best Served by Holding Agencies Accountable for Their Facts and Analysis and Then Reviewing the Records They Develop for Reasonableness.

Judges—and particularly the justices of this Court—decide the cases that are brought before them based upon the records the parties developed and the

questions the parties briefed. Under *Chevron*, in cases in which “more than ordinary knowledge respecting the matters subjected to agency regulations,” is required, 467 U.S. at 844, this Court determined that a “reasonableness” assessment is more apt than an appropriateness assessment. *Id.* at 845. The alternative is not a pristine examination of statutory language, but a regulatory analogue to extrinsic evidence to explicate “technical words or phrases not commonly understood” where each party advocates for a specific construction of a written instrument, and the judge’s determination of which is more credible is reviewed only for clear error. *Teva Pharms., Inc. v. Sandoz, Inc.*, 574 U.S. 318, 326 (2015) (Breyer, J.) In such cases, the Court nonetheless recognizes that factfinding “precede[s] the function of construction.” *Id.*

The factfinding that agencies engage in should likewise “precede the function of construction,” but should be reviewed for reasonableness—proper consideration and rational connectedness—and not by a trial judge’s being asked to weigh equally a litigant’s advocacy against an agency’s analysis and an appellate court’s review of that determination for clear error. *Cf. Life Techs. Corp. v. Promega Corp.*, 580 U.S. 140, 147–48 (2017) (Sotomayor, J.) (“Having determined the phrase ‘substantial portion’ is ambiguous, our task is to resolve ambiguity, not to compound it by tasking juries across the Nation with interpreting the meaning of the statute on an ad hoc basis.”).

At the same time, judges have “limitations—as generalists, as lawyers, and as outsiders trying to

understand intricate business relationships . . . [and] must be open to clarifying and reconsidering their decrees in light of changing market realities.” *NCAA*, 141 S.Ct. at 2166. Thus, the Court has recently raised questions about the times when a judge is asked to hold scales for either side to add what each thinks is relevant and persuasive. As Justices Alito, Ginsburg, and Kagan noted in their dissent in *Elgin v. Dep’t of Treasury*, 567 U.S. 1, 33–34 (2012)—in the different context of agency adjudication of constitutional claims—the absence of an adequate record for review risks “pinball procedur[e],” which serves no one. But then the judge must determine which should weigh more—sometimes requiring “incommensurable” balancing of, say, moral and economic interests. See *Nat’l Pork Producers Council v. Ross*, 598 U.S. 356, 393 (2023) (Barrett, J., concurring). As Justice Gorsuch asked in concurrence in *Sessions v. Dimaya*: should a court “entertain[] experts with competing narratives and statistics” and “should (or must)” a judge

predict the effects of new technology on what qualifies as the ordinary case? After all, surely the risk of injury calculus for crimes like larceny can be expected to change as more thefts are committed by computer rather than by gunpoint. Or instead of requiring real evidence, does the statute mean just to leave it all to a judicial hunch?

138 S.Ct. 1204, 1232 (2018) (Gorsuch, J., concurring).

These questions and concerns—and the humility they reflect—are valid and important, and should be

asked here, as they are in other contexts. Where Congress has authorized agencies to assemble evidence, to assess the strengths and weaknesses of statistical modeling, and to put forth their best analysis of how a statute is to apply, *Chevron* deference reflects Congress’s answer to *that* question. It is a “reasonable” assessment, but not through a purely adversarial prism as would be the case in other contexts. *See, e.g., Virginia v. Moore*, 553 U.S. 164, 171 (2008) (applying balancing reasonableness by weighing an intrusion upon an individual’s privacy against the promotion of legitimate government interests). After all, “Congress need not, and likely cannot, anticipate all circumstances in which a general policy must be given specific effect.” *United States v. Haggard Apparel Co.*, 526 U.S. 380, 392–93 (1999) (the agency is to apply tariff statutes to “unforeseen situations and changing circumstances in a manner consistent with Congress’ general intent”); *see also Nat’l Cable & Telecomms. Ass’n, Inc. v. Gulf Power Co.*, 534 U.S. 327, 339 (2002) (recognizing that technology “might be expected to evolve in directions Congress knew it could not anticipate” when the subject matter is “technical, complex, and dynamic”). When facing such questions, requiring agencies to investigate, to report, and to regulate on the basis of current science is not just useful for informed judicial review of policy decisions; it is imperative—and is the proper predicate for this Court’s construction. *See Teva*, 574 U.S. at 326.

D. Science Invites Continuous Questioning, Yet Must Be Reliable to Be of Use to Agencies—and Courts—as a Predicate for Review.

As noted decades ago, “Science does not discover ‘truth’; it brings us closer to truth by attempting to falsify hypotheses—a process of elimination that reveals which possible answers are wrong.” Richard V. Pouyat, *Science and Environmental Policy—Making Them Compatible*, *Bioscience*, Vol. 49 No. 4, 282 (1999). One element of scientific humility is that scientists know that there is always more to learn, and science is thus willing to reverse itself in the face of evidence. As Pouyat puts it, “The basic nature of science is that there will always be uncertainty.” *Id.* A key challenge, then, is that whereas “Scientists quantify phenomena . . . what policymakers desire is a ‘bright line’ from which to base their policy decisions.” *Id.*

Notwithstanding this inherent mutability of science, the work of scientists and the use of scientific information must be done well and reliably. AAAS is not asking this Court, or any other, to accept predicating judgments about issues or policies on insufficiently tested or outlying ideas, or on problematic data. Merely calling oneself a scientist or merely conducting some research might place someone along a bell curve, *id.* at 283, but there is no assurance that any one scientist is within the heart of the curve.

For that reason, in 2017 AAAS wrote a letter urging federal agencies to “ensure that the process of obtaining scientific and technical advice follows the letter and spirit of the Federal Advisory Committee Act and is in accord with democratic principles of governance, AAAS, *Scientific Organizations Statement on Science and Government, Policy and Public Statements*, June 27, 2017, https://www.aaas.org/sites/default/files/s3fs-public/Scientific%20Organizations%20Statement%20on%20Science%20and%20Government_6.27.2017.pdf, and AAAS sounded the alarm in June 2019 when the White House by Executive Order limited federal advisory committees, AAAS, *AAAS Statement on White House Executive Order Limiting Federal Advisory Committees*, June 14, 2019, <https://www.aaas.org/sites/default/files/2019-06/AAAS%20Statement%20on%20White%20House%20Executive%20Order%20Limiting%20Federal%20Advisory%20Committees.pdf>.

Congress has shared the same concerns. Effective January 14, 2019, Congress enacted 5 U.S.C. § 312, requiring policy questions to be addressed by means of data, methods, and analytical approaches, in consultation with “stakeholders, including the public, agencies, State and local governments, and representatives of non-governmental researchers.” Also, since 2010, 24 agencies have developed and implemented scientific integrity policies. These include the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Interior, Justice, Labor, State, Transportation, and Veteran Affairs, as well as the National Institute of Standards

and Technology, National Oceanic and Atmospheric Administration, Centers for Disease Control and Prevention, Food and Drug Administration, National Institutes of Health, US Agency for International Development, Environmental Protection Agency, Marine Mammal Commission, National Aeronautics and Space Administration, National Science Foundation, and Office of the Director of National Intelligence. Office of Science and Technology Policy, *Scientific Integrity*, <https://obama.whitehouse.archives.gov/administration/eop/ostp/library/scientificintegrity>.

One part of the 2018 Act, the Confidential Information Protection and Statistical Efficiency Act of 2018, codified four “fundamental responsibilities” in handling data:

- (A) produce and disseminate relevant and timely statistical information;
- (B) conduct credible and accurate statistical activities;
- (C) conduct objective statistical activities; and
- (D) protect the trust of information providers by ensuring the confidentiality and exclusive statistical use of their responses.

88 Fed. Reg. 56708 (2023). The Office of Management and Budget has just proposed implementing regulations, *id.*, to ensure greater public access to data, *id.* at 56716; enhance credibility and accuracy, *id.* at 56722; insist on objectivity, *id.* at 56724; and protect

confidentiality, *id.* at 56726. Neither the statute nor, obviously, these proposed regulations have yet been construed. Through its actions Congress has imposed increased accountability on agencies and has provided an as-yet-untested tool for courts to use in measuring an agency’s record creation and policy formation. To the extent that discontent with *Chevron* is really distrust of the incentives of agencies to develop meaningful records and derive rational policies from those records, the Court should recognize and avoid—as it has in other contexts—the temptation for judicial humility to become judicial hubris. *See Brown v. Davenport*, 142 S.Ct. 1510, 1528 (2022).

In sum, the above-referenced actions and proposed regulations aim to bolster scientific integrity, address possible conflicts of interest, and improve the nature of—and promote public input into—agencies’ records. AAAS, Congress, and courts agree that it is a laudable goal to prevent the possible politicization of expert advice and to improve the way agencies record how they develop policies. At the same time, given that the nature of science and technology is to develop over time, this Court ought to remain precisely aligned with Congress’s solution to inadequately thorough or responsive research by the enforcement of standards through review and oversight, rather than by removing judicial deference when an agency is working on problems that Congress established it to address.

E. *Chevron*, Properly Interpreted, Has Given Room for the Court to Fulfill its Obligations to Construe Statutes and Ensure Reasonableness in Their Applications.

Some have worried that judges abdicate their duties to construe statutes when *Chevron* deference applies. But history has shown that it does not need to be so. As factfinding “preced[es] the function of construction,” *Teva*, 574 U.S. at 326, but ultimately serves construction, so scientific and technical factfinding by agencies precedes and ultimately serves the Court’s construction of the statute. Indeed, the second step of *Chevron* is in fact two subsidiary steps: “whether the agency’s construction is ‘rational *and* consistent with the statute.’” *Sullivan v. Everhart*, 494 U.S. 83, 88–89 (1990) (Scalia, J.) (emphasis added). In many circumstances, that is precisely what has happened. The Court has tested the analysis and the application the agency has adopted against what this Court knows best—not just statutory language but the broader statutory scheme, well beyond the statute that a single agency is administering. From that vantage point, the Court rejects unreasonable agency positions both because they were “unreasoned”—i.e., not adequately grounded in fact or method; and because they were “unreasonable” in discerning the statutory scope within which they could regulate. *See Michigan v. EPA*, 576 U.S. 743, 750–51 (2015) (reasoned decisionmaking must have an agency’s result be within the scope of its lawful authority, and the process by which it reaches the result must be logical and rational and rest on a

consideration of the relevant factors); *Cuomo v. The Clearing House Ass'n, LLC*, 557 U.S. 519, 525 (2009) (finding “visitorial powers” in the National Bank Act ambiguous, but the meaning the agency wanted to place beyond the “outer limits of the term”); *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159–60 (2000) (“Given this history and the breadth of the authority that the FDA has asserted, we are obliged to defer not to the agency’s expansive construction of the statute, but to Congress’ consistent judgment to deny the FDA this power.”); *MCI Telecomms. Corp. v. AT&T Co.*, 512 U.S. 218, 229 (1994) (“[A]n agency’s interpretation of a statute is not entitled to deference when it goes beyond the meaning that the statute can bear.”).

To be sure, there have been times when the Court has found that the *Chevron* analysis is not even implicated, but it would have reached the same conclusion applying a bifurcated *Chevron* step two in the manner discussed above. See *West Virginia v. EPA*, 142 S.Ct. 2587, 2616–26 (2022) (Gorsuch, J., concurring) (discussing the mismatch between the agency’s expertise and the balancing it had undertaken); *Epic Sys. Corp. v. Lewis*, 138 S.Ct. 1612, 1629 (2018) (“Here, though, the Board hasn’t just sought to interpret its statute, the NLRA, in isolation; it has sought to interpret the statute in a way that limits the work of a second statute, the Arbitration Act. And on no account might we agree that Congress implicitly delegated to an agency authority to address the meaning of a second statute it does not administer. One of *Chevron*’s essential premises is simply missing here.”).

Said differently, AAAS views as essential the courts' role in ensuring that an agency's action or decision is a reasonable application of what Congress directed the agency to do. At the same time, AAAS would urge courts to be wary of a party that uses statutory interpretation to disguise discomfiture with science it does not like. The facts "appraised by specialized competence" should indeed be the "premise for legal consequences to be judicially defined." *Far E. Conf.*, 342 U.S. at 574–75.

Of course, the measuring stick for this Court is always the Constitution and the statutes Congress has enacted in accordance with the Constitution. Because court and agency are both "the means adopted to attain the prescribed end," *Morgan*, 307 U.S. at 191, the Court should continue to insist on—and be served by—"the determination of the matter of fact" to "precede the function of construction." *Teva*, 574 U.S. at 326 (cleaned up). To ensure that that is so, however else the Court would see fit to limit the reach of *Chevron*, it should continue to defer to the agency's findings as the foundation for its review when "technical, complex, and dynamic" matters are subject to regulation. *Nat'l Cable & Telecomms. Ass'n, Inc.*, 534 U.S. at 339. And it should continue to defer to the regulations that are rationally related to a properly constructed record.

IV. CONCLUSION

For all of the reasons set forth above, AAAS respectfully requests that this Court retain its deference

to the expert fact development of the federal agencies—the unique responsibility and competency that is the root and core of *Chevron*.

September 22, 2023

Respectfully submitted,

D. ALICIA HICKOK
FAEGRE DRINKER BIDDLE & REATH LLP
One Logan Square, Suite 2000
Philadelphia, PA 19103-6996
(215) 988-3364 (telephone)
(215) 988-2757 (facsimile)
alicia.hickok@faegredrinker.com

Counsel for Amici Curiae

*The American Association for the
Advancement of Science, The American
Society for Pharmacology and
Experimental Therapeutics, and
The Ecological Society of America*