

Taking the Biden agenda for evidence-based policy seriously: A follow-up to its effective implementation

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Abstract: *Prendere l'agenda Biden per una politica fondata su basi scientifiche seriamente: una rivisitazione della sua effettiva attuazione* - This article aims at providing a follow-up of the implementation of Biden's agenda in the context of scientific advice mechanisms and scientific integrity safeguards. It purports to test the measures, to evaluate the outcomes and the effects in terms of design of policies, and to analyse the specific and concrete institutional and substantive mechanisms and acts concretely adopted in the implementation phase.

Keywords: US government; decision-making process; evidence; consultative bodies

1. The Biden administration as a laboratory for evidence-based decision making: 'Illusion' or Legacy?

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In concluding the previous article on the role of scientific advice in the Biden administration,¹ we argued that the agenda designed and enacted at the beginning of his term could have positioned itself as a 'laboratory' in which innovative solutions of partnership and integration between policy, law, science and technology could be tested in their effective implementation and impact, and not just in their theoretical design.

Two years later, at the end of the term and in the context of a political campaign leading to the election of a new President of the United States, the scenario previously envisaged, which aimed at the systematic implementation of a method of evidence-based policy making, based on the strengthening of scientific integrity and the adoption of policies based on reliable and also "equitable" data, must be assessed in the light of the concrete implementation of the initial theoretical scheme.

What are the results of the 'laboratory' in terms of the centrality of scientific advice mechanisms and evidence-based policies? Whether and how the objectives declared at the beginning of the term to strengthen the legal nature and functions of the scientific advisory bodies have been implemented in practice? Whether and how the objective of institutionalising an evidence-based approach to policy-making throughout the federal administration has

¹ S. Penasa, *The role of scientific advisory bodies and Biden administration: A laboratory for an evidence-based decision-making process?*, in *DPCE Online, Special Issue, The American Presidency After Two Years of President Biden*, 2023, 333-344.

been achieved? Finally, what has been the concrete impact of this regulatory model in a number of areas identified as being most affected by this decision-making method?

The aim of this article is to provide a follow-up to the implementation of the Biden Agenda in order to test the methods, to assess the results and the impact in terms of policy design, and to analyse the specific and concrete institutional and substantive mechanisms and acts adopted in the implementation phase.

The structure of the article is as follows. In the first part, I will briefly recall the main features of the Biden agenda, focusing on the idea of evidence-based policy, scientific integrity within the administration, and the association of the formers with the goal of promoting more equitable policies. I will then assess the concrete effectiveness of this approach through a critical and prospective analysis of three different levels of implementation: institutional, where an incremental process of strengthening the presence and functions of scientific advisory bodies is detectable; operational, where the link between the evidence-based method and the goal of designing more equitable policies is highlighted; and, finally, a substantive level, where two specific areas of implementation of the method (evidence-based) oriented towards the goal (more equitable policies) become particularly paradigmatic in terms of assessing both the feasibility and the effectiveness of the whole agenda (the use of social and behavioural sciences in policy-making and the context of the LGBTQI+ Equity agenda).

Finally, I will offer some concluding remarks, which will focus on answering the question of whether the evidence-based and scientific integrity-centred method of policymaking will survive the end of the Biden administration and thus become a real legacy for future administrations, or whether it is destined to be a mere experiment within the current administration.

2. Main features of the Biden agenda for scientific advice and integrity: institutional and operational tools

There is one premise that is necessary and that has a double dimension.

First, scientific advice has indeed acquired the character of a common standard that is shared at the comparative level when it comes to executive policymaking.² Second, there is a long tradition in US policymaking of relying on scientific advice, both at the legislative and executive levels.³

² See P. Gluckman, *Science Advice to Governments: An Emerging Dimension of Science Diplomacy*, in 5(2) *Science & Diplomacy* 1 (2016); OECD, *Scientific Advice for Policy Making: The Role and Responsibility of Expert Bodies and Individual Scientists*, OECD Science, Technology and Industry Policy Papers, No. 21, Paris, 2015; J. Baron, *A Brief History of Evidence-Based Policy*, in 678 *ANNALS*, AAPSS 40 (2018); A. N. Andersen, K. Smith, *Evidence-based policy-making*, in B. Greve (ed.), *De Gruyter Handbook of Contemporary Welfare States*, Berlin, Boston, 2022, 29-44, that state that "The US was, and remains, the dominant exponent of the ideal of systematically evaluating policy programs through experimental or quasi-experimental methods".

³ According to Center for Science and Democracy, *Scientific Integrity of Federal Advisory Committees. Recommendations for 2021 and beyond*, Factsheet, 2020, "more than 200 advisory committees, comprised of academic, nonprofit, regulatory, and industry

According to Carrozza, “evidence-based policymaking” is a process based on a scientific approach to the decisions of parliamentary, governmental and administrative bodies, capable of leading them back to a scientific methodology based on measurable and, to the extent possible, verifiable data⁴. At the OECD level, the concept of “evidence-based policy making” has been proposed to define “a process whereby multiple sources of information, including statistics, data and including the best available research evidence and evaluations, are consulted before making a decision to plan, implement, and (where relevant) alter public policies, programmes and deliver quality public other services”⁵.

Informing decisions does not, of course, imply a mechanism for influencing or directing them, as the primary function of scientific advice is usually to provide decision-makers with “knowledge that can help to provide evidence to the policymaking process and improve the quality for generating, selecting, assessing and evaluating policy option”⁶.

A distinction can be made between “expert-based” and “expert-informed” decision making, the latter referring to situations where “all evidence is considered but not used by default as the sole basis for decision-making”⁷.

At the same time, evidence does not coincide with incontrovertible or error-free data but more closely with the provision of a “knowledge claim backed up by a recognised scientific procedure or method within the scientific domain for which the claim is made”⁸.

Against this conceptual background, since its inception, the general approach of Biden’s administration to science and scientific advice is characterised by two features: one retrospective, the other prospective.

In retrospect, there is a clear and open discontinuity with Trump’s approach to science and scientific advice.⁹ Trump’s administration has been identified with the idea of post-truth populism,¹⁰ a formula that identifies a

experts, produce and analyse research that may inform policy decisions”. See also D. D. Stine, *Science and Technology policymaking: A Primer*, in E. P. Miller (ed.), *Advising the President on Science and Technology*, New York, 2010.

⁴ P. Carrozza, *Tecnica e politica: la necessaria complementarietà*, in Grasso, G. (a cura di), *Il Governo tra tecnica e politica*, 2015, Napoli, 96.

⁵ OECD, *Building Capacity for Evidence-Informed Policy-Making: Lessons from Country Experiences*, OECD Public Governance Reviews, Paris, 2020, 14.

⁶ Science Advice for Policy by European Academies, *Making sense of science for policy under conditions of complexity and uncertainty*, in 6 *Evidence Review Report* 22 (2019).

⁷ Ivi, 23. P. Gluckman, R. Quirion, M. Denis, K. Allen, *Principles and Structures of science advice: An outline*, ISC and INGSA Occasional Paper March 2022, International Science Council.

⁸ *Ibidem*.

⁹ According to the Washington Post and the Guardian in 2017 the Centers for Disease Control and Prevention (CDC) was banned from even using terms such as “evidence-based” and “science-based” and diversity.

¹⁰ For a critical analysis of the impact of Trump’s agenda on science and scientific advice within Federal agencies, see J. Mervis, *Weathering the Storm*, in 370 (6514) *Science* 14 (2020). The article refers a statement from the US National Academies of Science and Medicine (September 2020), in which – while Trump is not explicitly mentioned – the centrality of scientific integrity in policymaking is particularly highlighted. The statement stresses the idea according to which “policy making must be informed by the best available evidence without it being distorted, concealed or otherwise deliberately

“phenomenon in which scientific facts take a back seat to emotionally charge[d] populist rhetoric”, thus becoming less important in shaping public opinion than political appeals to emotion and “alternative facts”.¹¹

From a more forward-looking perspective, Biden’s agenda immediately defined the goal of restoring and strengthening what was later defined as the Federal Evidence and Evaluation Infrastructure, based on the idea of designing and implementing an evidence-based approach to policymaking as a mainstream approach to agency action.

Two are the “key” pieces of regulation on which the Agenda is essentially based: the 2021 Memorandum on Restoring Trust in Government through Scientific Integrity and Evidence-Based Policymaking, and the 2021 Executive Order on Advancing Racial Equity and Support for Underserved Communities through the Federal Government. Each provides a comprehensive institutional and regulatory framework in which the method – evidence-based – of policymaking is directly related and functional to an overall policy goal – more equitable policies –.

In short, the 2021 Memorandum is in continuity with the previous Obama administration, which issued a Memorandum on Scientific Integrity to all heads of executive departments and agencies in 2009 (9 March 2009). The memorandum expressed the view that science and the scientific process must inform and guide the administration’s decisions on a wide range of issues, with explicit reference to the “improvement of public health, protection of the environment, increased efficiency in the use of energy and other resources, mitigation of the threat of climate change, and protection of national security”.¹² It specifically charged the Director of the Office of Science and Technology Policy (OSTP) with ensuring the highest level of integrity in all aspects of executive branch involvement in science and technology processes. The Biden administration restored this approach, recalling and reintroducing in the President’s Memorandum¹³ the idea that its policy is “to make evidence-based decisions guided by the best available science and data”. The evidence-based method is explicitly linked to, and seen as functional for, “the development and iterative improvement of sound policies, and to the delivery of equitable programs, across every area of government”.¹⁴

Accordingly, the 2021 Executive Order on Advancing Racial Equity and Supporting Underserved Communities through the Federal Government provides the general framework of policy objectives against which the evidence-based method operates. Specifically, the EO sets the goal of using data and evidence to inform more equitable and just policies in various areas of government. Significantly, the EO states that “A first step

miscommunicated”; at the same time, it refers to finding the risk of the “(...) politicization of science, particularly the overriding of evidence and advice from public health officials and derision of government scientists, to be alarming”.

¹¹ F. Fischer, *Post-Truth Populism and Scientific Expertise: Climate and Covid Policies from Trump to Biden*, in 4(1) *Int. rev. public policy* 2 (2022).

¹² Memorandum on Scientific Integrity, March 9, 2009.

¹³ President’s Memorandum on Restoring Trust in Government through Scientific Integrity an Evidence-Based Policymaking, January 27, 2021.

¹⁴ *Ibidem*.

to promoting equity in Government action is to gather the data necessary to inform that effort” (Section 9), and to address the existing lack of data disaggregated by race, ethnicity, gender, and other key demographic variables within federal agencies, it established an Interagency Working Group on Equitable Data (Equitable Data Working Group).

The mission of the Working Group is to study and make recommendations to the APDP that identify deficiencies in existing federal data collection programs, policies, and infrastructure; and, among other things, to assist agencies in implementing measures, consistent with applicable law and privacy interests, that expand and refine the data available to the federal government to measure equity and capture the diversity of the American people.

The evidence-based approach is thus institutionalised as an essential element of the broader “comprehensive approach to advancing equity for all” that the federal administration must pursue through “a systematic approach to embedding fairness in decision-making processes”. The concept of “equitable data”, on which section 4 will focus, is a paradigmatic example of this inherent connection.

Three key ideas can be identified in the intertwining of politics and science: first, the guarantee of the scientific reliability of the decisions taken; second, the link between the scientific reliability of government programmes and their equity, especially in the context of social welfare; and finally, the transversal nature of the evidence-based approach, which must characterise every area of government action.

To complete the regulatory landscape in which the follow-up to the Biden agenda on science, scientific advice and scientific integrity will take place, it is necessary to recall a legislative support.

In 2018, the Bipartisan Foundations for Evidence-Based Policymaking Act (“Evidence Act”) created a legislative framework that requires federal agencies to improve the infrastructure needed to generate and use evidence in policy development;¹⁵ improve access to government data, making it more open, streamlined, and secure; and develop a shared understanding of how to frame important policy questions, obtain relevant data, and better use existing data to improve the infrastructure needed for federal agencies to generate and use evidence in policy development.

The Act provided the administration with a set of objectives to be achieved at both institutional and operational levels. It is worth noting that the Biden administration appears to have taken the legislative goals seriously. In the 2021 Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans, the Office of Management and Budget (OMB) clarified that “Agencies should not simply produce the required documents and then turn their attention elsewhere; success requires that agencies develop processes and practices that establish habitual and routine reliance

¹⁵ Requiring Chief Data Officers within each agency to be responsible for data management, privacy and confidentiality and data access. Establishing an Advisory Committee on Data for Evidence-Building to recommend how to expand access to and use of federal data in policy decisions.

on evidence across agency functions and demand new or better evidence when it is needed".¹⁶

Other operational tools include the Biden-Harris Administration Evidence Tracker, which tracks and analyses specific efforts to integrate evidence and data into federal policy and budget decisions over the course of the Administration's tenure¹⁷; and the 2021 Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans (Office of Management and Budget), which reaffirms the central role of evidence-building in general, and evaluation in particular, in achieving the goal of evidence-based policymaking.¹⁸

After a brief reminder of the legal and regulatory framework in which the Agenda was designed and developed, three main pillars have been identified for monitoring its effective implementation.

They relate respectively to the institutional design, the method of policymaking and the (link to) specific policy objectives. As the following analysis will show, they are characterised respectively by the gradual strengthening of scientific advice institutions and their functions; the mainstreaming of an evidence-based approach to policy-making, which must be guided by the best available evidence and data, and the strengthening of scientific integrity within the federal administration, as "scientific findings should never be distorted or influenced by political considerations"; and finally, the link between the goal of implementing more equitable, fair and just policies and the extensive use of data evidence and scientific integrity.

3. Follow-up to the Agenda: institutional tools and the strengthening of a federal evidence and evaluation infrastructure

The gradual strengthening of scientific advisory institutions is evident both in terms of their number and the material scope of action specifically assigned to them.¹⁹ As already highlighted, for the first time in the history of the US government, the President's Chief Advisor for Science and Technology has been given the status of a cabinet member,²⁰ while at the same time co-chairing the President's Council of Advisors on Science and Technology (PCAST). The latter advisory body was established during the Biden administration with the Executive Order on the President's Council of Advisors on Science and Technology (27 January 2021)²¹, which, in line

¹⁶ Office of Management and Budget, *Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans*, June 30, 2021, 3.

¹⁷ <https://results4america.org/biden-harris-administration-evidence-tracker/>.

¹⁸ <https://www.whitehouse.gov/wp-content/uploads/2021/06/M-21-27.pdf>.

¹⁹ J. Tollefson, et al., *Has Biden followed the science? What researchers say*, in 601(7894) *Nature* 491 (2022).

²⁰ <https://www.whitehouse.gov/ostp/directors-office/>. *The Washington Post* reported that Biden declared that "science will always be at the forefront of my administration" and that scientific advice mechanisms and bodies "will ensure everything we do is grounded in science, facts, and the truth". *Washington Post*, *Biden will elevate White House science office to Cabinet-level*, 15 January 2021, <https://www.washingtonpost.com/science/2021/01/15/biden-lander-ostp/>.

²¹ K. M. Evans, K. R.W. Matthews, *Representing science: diversity on the President's Council of Advisors on Science and Technology*, in 51 *Sci. Public Policy* 895 (2024).

with the Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking, emphasised that “policy of Federal administration is to make evidence-based decisions guided by the best available science and data”; and that officials and employees “(...) shall seek from scientists, engineers and other experts the best available science and technology information and advice”.²²

As a specific function, PCAST shall advise the President on matters involving policies that affect science, technology, and innovation, and on matters involving scientific and technological information needed to inform public policy relating to the economy, worker empowerment, education, energy, the environment, public health, national and homeland security, racial equity, and other issues.²³ In the ‘Letter to the President’s Science Advisor and the Director of PCAST’,²⁴ Biden stated the Administration’s goal to refresh and reinvigorate the Administration’s science and technology strategy by charging the scientific advisory bodies with understanding and advancing “how science and technology can best be applied to benefit Nation’s health, economic prosperity and security in decades that would follow”.²⁵

Another step was the re-establishment (Social and Behavioural Sciences Subcommittee) or creation of new scientific advisory bodies,²⁶ such as the Subcommittee on Equitable Data, and ad hoc bodies, such as the Task Force on Scientific Integrity, with a monitoring, evaluation, and reporting function.

The President’s Memorandum on Restoring Trust in Government assigned the Director of the Office of Science and Technology Policy (OSTP)²⁷ the specific task of ensuring scientific integrity in the various areas of action²⁸ and called on all agencies to establish Agency Scientific-Integrity Policies (Section 3). It also mandated, only for agencies that fund, conduct, or oversee scientific research, the establishment of an agency Chief Science Officer who, among other specific responsibilities, is to serve as the principal advisor to the head of the agency on scientific matters and to ensure that the agency’s research programmes are scientifically and technologically sound and conducted with integrity (Sec. 6).

Scientific integrity, according to Biden’s executive order, means “ensuring that science is conducted, managed, communicated, and used in ways that preserve its accuracy and objectivity and protect it from

²² Executive Order establishing the Council of Advisors on Science and Technology, January 2021.

²³ Executive Order, Section 3.a).

²⁴ Letter to the President’s Science Advisor and Director of PCAST, 15 January 2021.

²⁵ *Ibidem*.

²⁶ According to Center for Science and Democracy, *Scientific Integrity of Federal Advisory Committees. Recommendations for 2021 and beyond*, 1, “The Trump administration has weakened or completely disbanded a number of federal advisory committees (Green and Beitsch 2019)”.

²⁷ D. D. Stine, *The President’s Office of Science and Technology Policy (OSTP): Issues for Congress*, in E. P. Miller (ed.), *Advising the President on Science and Technology*, cit., 19-67.

²⁸ According to the Memorandum, the Director “shall ensure the highest level of integrity in all aspects of executive branch involvement with scientific and technological processes”.

suppression, manipulation, and inappropriate influence, including political interference”²⁹. Thus, “when scientific or technological information is considered in policy decisions, it should be subjected to well-established scientific processes, including peer review where feasible and appropriate, with appropriate protections for privacy”.³⁰

The NSTC Subcommittee on Scientific Integrity released in 2022 the Report on Protecting the Integrity of Government Science, which was designed to facilitate the periodic assessment and iterative improvement of scientific integrity policies and practices, and to create a scientific integrity community of practice for federal agencies (inter-agency coordination, information sharing, and support).

According to the Charter of the Subcommittee on Scientific Integrity, its mission is to assess and communicate on federal scientific integrity issues in order to promote and strengthen a government-wide culture and practice of scientific integrity and to provide coordination, information sharing, and support across agencies and components of the Executive Office of the President (EOP). This scope enables the Subcommittee to be a primary vehicle for interagency coordination, evaluation, and improvement of agency policies and practices, while maintaining a role as an independent voice on federal scientific integrity issues.³¹

In 2023, OSTP released the Framework for Federal Scientific Integrity Policy and Practice (key areas for agencies to improve policies and practices) as a fundamental step in implementing the President’s Memorandum on Restoring Trust in Government.³² This document is based on the first-ever government-wide definition of scientific integrity, a roadmap of activities and outcomes to achieve an ideal state of scientific integrity, a Model Scientific Integrity Policy, and critical policy characteristics and metrics that OSTP will use to iteratively assess agency progress.³³

Particularly relevant is the definition of scientific integrity, which has to be intended as “the adherence to professional practices, ethical behaviour, and the principles of honesty and objectivity when conducting, managing, using the results of, and communicating about science and scientific activities. Inclusivity, transparency, and protection from inappropriate influence are hallmarks of scientific integrity”.³⁴ Interestingly, the Framework calls on federal agencies to adopt this definition, incorporate it into their scientific integrity policies, and communicate it to their employees.

It is also worth mentioning OSTP’s 2024 Biennial Report on the Implementation Status of Federal Scientific Integrity Policy and Practice, which monitored and assessed 28 federal agencies “that conduct, manage, communicate, and use science” to determine the level of effective implementation of scientific integrity protection standards. In terms of monitoring the concrete implementation of the agenda, the report confirmed

²⁹ Fact Sheet: Biden-Harris Administration Launches Year of Evidence for Action to Fortify and Expand Evidence-Based Policymaking, 2022.

³⁰ Memorandum on Restoring Trust in Government.

³¹ Charter of the Subcommittee on Scientific Integrity, 2022.

³² OSTP, *Framework for Federal Scientific Integrity Policy and Practice*, 2023.

³³ *Ivi*, 3

³⁴ *Ivi*, 8.

that a large number of monitored federal agencies have updated or strengthened their scientific integrity plans. More specifically, 19 out of 26 agencies reported having completed or updated their scientific integrity policies, 9 are still in the review or approval process, and 25 have designated scientific integrity officers to oversee policy implementation.³⁵

The report also outlines future challenges in policy implementation, highlighting in particular the need for adequate resources within agencies to implement a robust scientific integrity programme, including to support the development and delivery of role-specific training tailored to the needs of different staff across the agency, as well as an evaluation plan.³⁶

The strengthening of the institutional architecture for scientific advice has also been developed on political rather than methodological grounds. An Interagency Working Group on Equitable Data (the Equitable Data Working Group) was established to implement Executive Order 13985 on Advancing Racial Equality (2021), which, as noted above, explicitly links the political commitment to promoting equity in government action to the collection of adequate data to support these efforts. The Working Group was charged with studying and, in consultation with committed agencies, making recommendations to the APDP to identify deficiencies in existing Federal data collection programs, policies, and infrastructure across agencies and strategies to address any identified deficiencies; and to assist agencies in implementing actions, consistent with applicable law and privacy interests, that expand and refine the data available to the Federal Government to measure equity and capture the diversity of the American people.³⁷

According to EO 13985, the lack of data disaggregated by race, ethnicity, gender, disability, income, veteran status, or other key demographic variables has “cascading effects” and hinders the federal government’s efforts to measure and promote equity. It therefore proposes the concept of “equitable data”³⁸, i.e. data that “allow for rigorous assessment of the extent to which Governmental programs and policies yield consistently fair, just and impartial treatment of all individuals”.³⁹

The 2023 report “Progress on Implementation of the Recommendations of the Equitable Data Working Group” further clarified that the principle of equitable data is “disaggregating and analysing data to identify disparities in federal policies and programs, using levers of the

³⁵ Agency procedures to address scientific integrity concerns include those for reporting, investigating, and appealing allegations of scientific integrity violations.

³⁶ *Ivi*, 15.

³⁷ Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, sec. 9.

³⁸ See, among others, C. Cooper, V. Martin, O. Wilson, L. Rasmussen, *Equitable data governance models for the participatory sciences*, in 2(2) *Comm. Science* 1 (2023); E. Ruijter, G. Porumbescu, R. Porter, S. Piotrowski, *Social equity in the data era: A systematic literature review of data-driven public service research*, in 83 *Pub. Admin. Rev.* 316 (2023); A. Ninez Ponce, T. D. Lau, *Toward More Equitable Public Health Data: An AJPB Special Section*, in 113 *Am. J. Public Health* 1276 (2023).

³⁹ Executive Order n. 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, sec. 9.

federal government to address those disparities, and then enabling members of the public to hold government accountable”.⁴⁰

The Equitable Data Working Group’s 2002 document, “A Vision for Equitable Data”, provides key recommendations that can be implemented by federal agencies “to identify inadequacies and provide recommendations that lay out a strategy for increasing data available for measuring equity and representing the diversity of the American people”.⁴¹

On this basis, the NSTC’s Subcommittee on Equitable Data (established by EO 13985) issued the 2023 Report (Progress in Implementation of Recommendations of the Equitable Data Working Group), which provides a follow-up on existing best practices and specific actions taken at the federal agency level. It was published in order to fulfil the task assigned to it of regularly assessing the concrete implementation of the principle of “equitable data”.

It is worth mentioning the “What’s Next” section in all the different chapters of the report, where commitments, mechanisms and perspective goals are set. Of particular relevance is the future commitment to develop data policy strategies to improve the available evidence on historically underserved communities, such as detailed racial and ethnic groups, people with disabilities, and people in rural communities (“Making disaggregated data the norm while protecting privacy”); and the need to integrate training modules on how to conduct equity assessments to identify disparities into training activities and inter-agency sharing; and efforts to recruit a diverse data workforce, such as using subject matter experts to assess skills, coordinating recruitment from minority-serving institutions, and expanding pools of potential applicants to better include underrepresented communities (“Building federal capacity to conduct robust equity assessments”). The latter principle is an expression of a method of “reflective science” aimed at building a professional scientific community that reflects the full diversity of American society, as well as the role of science and technology in addressing societal inequalities and making the achievements of that community and their applications available to all people.⁴²

The 2023 EO on Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government builds on previous equity-related Executive Orders by expanding and strengthening the requirements for agencies to advance equity. The 2023 EO further strengthens the evidence-based approach to (more) equitable policies by calling for “Further Advancing Equitable Data Practices” (Section 9); among

⁴⁰ 2023 Report on “Progress on Implementation of the Recommendations of the Equitable Data Working Group” (available at: <https://www.whitehouse.gov/wp-content/uploads/2023/03/Progress-on-Equitable-Data-Mar2023.pdf>).

⁴¹ Office of Science and Technology Policy, National Science and Technology Council, Subcommittee on Equitable Data, *A Vision for Equitable Data Recommendations From the Equitable Data Working Group*. Available at: <https://www.whitehouse.gov/wp-content/uploads/2022/04/eo13985-vision-for-equitable-data.pdf>.

⁴² OSTP, *Equity Action Plan 2020* (available at: <https://www.whitehouse.gov/wp-content/uploads/2022/04/04-2022-EO13985-OSTP-EquityAction-Plan-FINAL.pdf>). The Equity Action Plan recommends two main actions: “developing OSTP’s capacity to advance equitable science and technology policy” and “employing inclusive engagement to impact policy development”.

other things, it calls on OSTP and its Subcommittee on Equitable Data to coordinate the implementation of relevant recommendations of the Interagency Working Group on Equitable Data established by Executive Order 13985, and requests the Director of OSTP to provide an annual report to the OSTP Steering Committee on the Subcommittee's progress.⁴³

4. Follow-up of the Agenda II: illustrative areas of concrete implementation (The 2023 Federal Evidence Agenda on LGBTQI+ Equity and the use of social and behavioural science)

The policy areas of interest to the agenda are many, as the evidence-based approach to policymaking was intended to become a mainstream method within the Biden administration, but two are particularly relevant to underscore the strict link between the method (evidence-based and integrity) and the level of concrete implementation of policy goals (more equitable policies): the LGBTQI+ Equity Programme and the use of social/behavioural science.

The 2022 Executive Order 14075 (Advancing Equality for Lesbian, Gay, Bisexual, Transgender, and Intersex Individuals) recalled the need to build innovative policy strategies to address persistent barriers faced by LGBTQI+ communities in relevant areas (such as education, housing, foster care, access to health care, juvenile justice programmes), including on the basis of specific and disaggregated data. Specifically, the EO states that “in order to advance equity for LGBTQI+ people, the Federal Government must continue to gather the evidence needed to understand the LGBTQI+ community, the barriers they face, and the policy changes the Federal Government can make to enable their health and well-being”.⁴⁴ Thus, the 2023 Federal Evidence Agenda on LGBTQI+ Equity aims “to provide a roadmap for federal agencies as they work to create their own data-driven and measurable SOGI Data Action Plans to help assess, improve, and monitor the health and well-being of LGBTQI+ people over time”.⁴⁵

One of the goals for interested federal agencies is to develop the idea that SOGI data collection should become part of standard demographic data collection across federal agencies. This data will then need to be analysed and reported on to enable agencies to improve their evidence-based policy and programmatic decision-making.⁴⁶

Three areas are specifically identified and developed in the agenda: an overview of LGBTQI+ Data Needs; a Learning Agenda to Advance LGBTQI+ Equity (additional evidence), which is a strategic evidence-building plan that identifies priority questions needed to address a set of objectives identified around pre-identified broad themes (health, health care, and access to care; housing stability and security; economic security and

⁴³ Available at: <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>.

⁴⁴ Subcommittee on Sexual Orientation, *Gender Identity, and Variations in Sex Characteristics (SOGI) Data*, Federal Evidence Agenda on LGBTQI+ Equity.

⁴⁵ *Ivi*, 3.

⁴⁶ *Ivi*, 16.

education; and safety, security, and justice); and specific Guidelines for Collecting SOGI Data on Federal Administrative Forms.

From a broader perspective – the use of specific expertise and data in the policymaking process – one of the most important actions at the beginning of the Biden administration was the re-chartering of the Social and Behavioural Sciences Subcommittee (2022), originally established during the Obama administration and subsequently dismissed by Trump⁴⁷. The Charter of the SBS (April 2022) stated that this advisory body must be one of the tools used by the administration to fulfil the mission of prioritising and expanding the scope of evidence-based methods to support federal policymaking, particularly with regard to promoting equity.⁴⁸ Its main function was to provide executive agencies and departments with “a forum for discussing the use of social and behavioural science methods”, recognising “these disciplines’ unique role in describing, understanding, and addressing societal challenges and assessing and evaluating initiatives, programs, and policies promulgated by the Federal government”.

Within this conceptual framework, the 2024 Subcommittee published the Blueprint for the Use of Social and Behavioural Science to Advance Evidence-Based Policymaking⁴⁹ to provide a resource to assist federal decision makers in using social and behavioural science to improve the design and implementation of policies and programs. According to the 2024 Blueprint, “Successfully leveraging social and behavioural science allows the federal government to produce more efficient and effective efforts with more positive, meaningful, and equitable outcomes for all individuals. The failure to understand and address the social and behavioural dimensions of issues reduces effectiveness of policies, programs, and outcomes for the American public and risks unintended consequences”.⁵⁰ The Blueprint provides a framework for using social and behavioural science to advance evidence-based policymaking; it offers recommendations for implementing the framework; and it identifies pathways and opportunities for partners, organisations, and communities outside the federal government to support these efforts going forward.

Concrete access to support services to ensure pathways to good jobs is one of the policy goals that can be positively addressed through the use of social and behavioural data analysis.⁵¹ In particular, services such as childcare and transport are identified in the evidence as potential barriers to attendance and participation in work and education. The Blueprint presents the existing evidence in the context of the past performance of government-

⁴⁷ Charter of the Subcommittee on Social and Behavioural Sciences of the Committee on Science National Science and Technology Council, April 2022 (https://www.whitehouse.gov/wp-content/uploads/2022/06/06-2022-SBS_Recharter.pdf).

⁴⁸ See W. J. Congdon, M. Shankar, *The Role of Behavioural Economics in Evidence-Based Policymaking*, in 678 *ANNALS, AAPSS* 81 (2018).

⁴⁹ Blueprint for the Use of Social and Behavioural Science to Advance Evidence-Based Policymaking, 2024.

⁵⁰ *Ivi*, 8.

⁵¹ *Ivi*, 75 ff.

funded programmes.⁵² In doing so, it outlines and provides concrete ways in which agencies and other institutional subjects involved in policy making should tailor support services to the needs of the community and individuals the programme is intended to serve.⁵³

5. The Biden evidence-based approach to policy making: Just a short-term “laboratory” or a long-term legacy?

The permanent integration of an evidence-based methodology into an administration is a cultural, institutional, and regulatory challenge that necessarily requires a medium- to long-term approach and, among other things, a stable set of institutional mechanisms for monitoring and evaluating – and advising on – its effective implementation in various areas of interest to the federal administration. Taking into account the EO on Advancing Racial Equity, further steps have been identified in OMB’s regulatory action, together with OSTP, to support the collection and analysis of disaggregated data for equity analysis. One of the key actions to be taken is to “continue to develop statistical policy directives that allow the collection of data disaggregated by key categories such as race, sexual orientation, and others, especially since analyses based on aggregated data can mask significant differences across subgroups (e.g., race, ethnicity, gender, geography, income and other characteristics)”.⁵⁴

Turning to the regulatory and normative nature of such an agenda, it inevitably reveals – at least potentially – its weakness and temporary nature⁵⁵. Although it is backed by legislative sources (the 2018 “Evidence Act”) and executive orders (see paragraph 2), the “evidence” and “scientific integrity” oriented approach established by the Biden administration represents a politically reversible plan. It is inevitably subject to potential changes in the broader political and electoral landscape, and thus requires legally enforceable safeguards and ad hoc mechanisms to become a long-term constitutive element of federal administration. The image of “Trump-

⁵² According to the Blueprint, evidence shows that a 10% reduction in the price of child care can lead to a 0.5-2.5% increase in maternal employment (*Ivi*, 76).

⁵³ *Ivi*, 76.

⁵⁴ C. Ciocca Heller, *The Power of Evidence to Drive America’s Progress: A Decade of Results and Potential for the Future*, Results for America, 2024, 61.

⁵⁵ It is even more advisable if we take into account the broader legal context, with a special regard to the US Supreme Court’s overruling of the Chevron precedent. See L. O. Gostin, A. Radhakrishnan, *The Supreme Court Disempowers Public Health Agencies and Devalues Science*, in *JAMA Forum | Health and the 2024 US Election*, September 19, 2024, that state that “Agencies will need to adapt to this new legal landscape. Importantly, agencies will have to ensure that any new rules are issued with a robust evidentiary record and detailed justification”. T. Harris, R. Alexander, *Science in a shifting policy system*, in 386(6718) *Science* 125 (2024), “In this new era, the next generation of scientists should possess a stronger understanding of the regulations relevant to their fields and the impacts of laws not only on their own research but on science as a whole and science’s benefit to society”.

proofing” science⁵⁶ reflects the idea of the need to “insulate US science agencies from political interference”.⁵⁷

Aware of this risk, the Biden administration has taken a number of initiatives in its final months to strengthen both institutional and individual safeguards for scientific integrity, while reaffirming the central role of scientific agencies within the administration. Examples include the inclusion of ad hoc “scientific integrity” clauses in recently renewed contracts with the union representing thousands of scientists and engineers at the US Environmental Protection Agency (EPA) and other relevant scientific agencies (Department of Agriculture, National Health Institute). They agreed to include an innovative clause that any dispute over scientific integrity or alleged retaliation against scientists who speak out would be heard by an independent arbitrator outside the agency.⁵⁸

It is also worth noting that the President’s 2025 Fiscal Year budget funded a number of initiatives to maintain and increase investment in evidence-based programmes.⁵⁹

Finally, the House of Representatives is currently debating the 2023 Scientific Integrity Act, which – if passed – will aim to prevent political or other special interests from side-lining or distorting federal science⁶⁰. This, as well as those that may be enacted during the next presidential term, could undoubtedly provide the policy agenda with adequate tools and safeguards that are not only administrative but also legislative in nature, providing measures and remedies that are not only politically binding but also judicially enforceable.

In its text, the Bill restates the principle that science and the scientific process should help inform and guide public policy decisions on a wide range of issues, including improving public health, protecting the environment, and safeguarding national security, and that science, the scientific process, and the communication of science should be free from politics, ideology, and financial conflicts of interest. For these reasons, it provides a set of requirements that are part of the “Scientific Integrity Policies” that each federal agency that funds, conducts, or oversees research must adopt, implement, and submit to the Director of the Office of Science and Technology Policy for approval. Among other requirements and safeguards directly related to the protection of individual scientists within the federal administration, it is worth mentioning the obligation to establish, within a specified period of time, a scientific integrity officer appointed by each affected agency; and the obligation to establish an administrative procedure and an administrative appeals procedure for the resolution of disputes consistent with the scientific integrity policy of the covered agency adopted under subsection.

Ultimately, the Biden agenda is based on a set of interrelated principles and goals: to secure and protect the institutional and procedural architecture of

⁵⁶ J. Tollefson, *Agencies ramp up efforts to ‘Trump - proof’ US science*, in 632 (2024) *Nature* 238 (2024).

⁵⁷ *Ibidem*.

⁵⁸ *Ivi*, 239.

⁵⁹ <https://www.evaluation.gov/assets/resources/Evaluation.gov%20-%20FY%2025%20Highlights%20-%20Formatted.pdf>.

⁶⁰ <https://www.congress.gov/bill/118th-congress/house-bill/4893/text>.

scientific advice and scientific integrity within federal agencies; to incorporate an evidence-based method into policymaking as an essential tool for achieving concrete (policy) goals based on reliable and politically untainted (evidence-based) but also equitable data (more effective, equitable, and just policies).

An essential part of this scheme is the closing of the “regulatory loop”, which was opened in 2018 with the entry into force of the Evidence Act, and which underwent a phase of effective consolidation and expansion under the Biden administration; it must now be supported by ad hoc legislative instruments capable of giving the administrative scheme a legally binding and politically irreversible character (see the 2023 bill on the Scientific Integrity Act).

How effective has Biden’s agenda been in the federal administration? In the long run, will it be only a temporary laboratory for regulatory design, or will it become a political and administrative legacy? The 2024 Presidential elections will probably resolve the dilemma.

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