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INCORPORATING ENVIRONMENTAL JUSTICE INTO
BENEFIT-COST ANALYSIS OF FEDERAL RULEMAKINGS

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ABSTRACT

President Biden proposes to revise the federal rulemaking process to advance the values of justice and equity. This analysis offers a practical path forward by adding an equity test to the efficiency test applied to new federal regulations by the U.S. Office of Management and Budget. This article explores the feasibility of the proposal with applications to regulation of hazardous air pollutants and drinking water contaminants. The proposal seeks to advance the interests of low-income Americans in federal rulemaking, a subgroup that has received little historical priority in the regulatory impact analyses prepared by federal regulatory agencies.

INTRODUCTION

President Joe Biden has pledged to make equity a cornerstone of his administration. One of his first actions in office was Executive Order 13985, which calls for policies that advance the interests of “disadvantaged, vulnerable, and marginalized communities.”¹ In a related Presidential Memorandum titled “Modernizing Regulatory Review,” President Biden called on the Office of Management and Budget (“OMB”) to propose procedures that consider the “distributional consequences of regulation . . . [on] disadvantaged, vulnerable, or marginalized communities.”²

It has been over a year since the start of the new administration, but OMB has not yet taken formal action on this presidential instruction.³ This may be due in part because the President’s OMB has no Senate-confirmed leadership.⁴ President Biden’s original nominee for OMB director was not confirmed by the Senate.⁵ Moreover, the unit within OMB responsible for regulatory-analysis guidelines, the Office of Information and Regulatory Affairs (“OIRA”), has not received any Senate-confirmed leadership since the start

¹ Exec. Order No. 13,985 Sec. 1, 86 Fed. Reg. 7,009 (Jan. 20, 2021).

² Memorandum from The White House to the Heads of Exec. Dep’ts and Agencies (Jan. 20, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/modernizing-regulatory-review/>.

³ Courtney Bubl , *Biden’s OMB Nominee Plans to Keep Prioritizing Oversight and Ending Government Shutdowns*, GOV’T EXEC.: MGMT. (Feb. 1, 2022), <https://www.govexec.com/management/2022/02/priorities-bidens-omb-director-nominee-include-oversight-and-ending-government-shutdowns/361443/>.

⁴ *Id.*

⁵ *Id.* However, another nomination for director and deputy director was recently announced. Brett Samuels, *Biden Taps Shalanda Young to White House Budget Office*, THE HILL (Nov. 24, 2021), <https://thehill.com/homenews/administration/582955-biden-taps-shalanda-young-to-lead-white-house-budget-office>.

of the Biden administration and has not announced a nominee to lead the unit.⁶

Another possible explanation for the delayed OIRA response is that the issues are complex philosophically, scientifically, and politically. President Bill Clinton issued an executive order that prioritized environmental justice concerns, an order which was retained by each of Clinton's successors, both Republican and Democrat.⁷ Nevertheless, the reality is that robust literature indicates that the previous order on environmental justice had little or no effect on the practice of regulatory analysis and rulemaking.⁸ Environmental justice has had little impact on rulemaking partly because OIRA has not provided regulators with detailed guidance on incorporating environmental-justice concerns into regulatory analysis and rulemaking.⁹ Unless, and until, environmental justice finds its way into the practice of "regulatory impact analysis,"¹⁰ we should expect environmental justice concerns to have an insignificant influence on the rulemaking process.¹¹

A well-developed body of legal literature and judicial decisions have highlighted the increasingly important role of benefit-cost analysis in judicial review of agency rulemaking, even when Congress is silent about the role of such analysis.¹² If Congress were to write new legislation that establishes environmental justice as an overriding consideration in regulatory decision making, effectively trumping benefit-cost analysis in the process, perhaps then environmental justice could have a major impact. But Congress, not President Biden, enacts legislation, and there is no groundswell of support for legislative reform to replace or limit benefit-cost analysis with environmental justice. Thus, if President Biden is to make progress in this arena, it will be through executive action and improvement of benefit-cost analysis.

This article proposes the incorporation of environmental justice into benefit-cost analysis of new rulemakings. The proposal is applicable to both

⁶ Bubl , *supra* note 3; Nancy Cook, *Progressives Want One of Their Own as Biden's Regulatory Gatekeeper*, BLOOMBERG (Feb. 17, 2022), <https://www.bnnbloomberg.ca/progressives-want-one-of-their-own-as-biden-s-regulatory-gatekeeper-1.1724997>.

⁷ Proclamation No. 12898, 59 Fed. Reg. 7629 (Feb. 16, 1994).

⁸ Denis Binder et al., *A Survey of Federal Agency Response to President Clinton's Executive Order No. 12898 on Environmental Justice*, 31 ENV'T L. REP. 11133, 11139 (2001); Carl F. Cranor & Adam M. Finkel, *Toward the Usable Recognition of Individual Benefits and Costs in Regulatory Analysis and Governance*, 12 REGUL. AND GOVERNANCE 131, 131 (2018); Elizabeth Glass Geltman et al., *Beyond Baby Steps: An Empirical Study of the Impact of Environmental Justice Executive Order 12898*, 39 FAM. AND CMTY. HEALTH 143, 143 (2016); Lisa A. Robinson et al., *Attention to Distribution in U.S. Regulatory Analyses*, 10 REV. ENV'T ECON. AND POL'Y 308, 308 (2016).

⁹ JACK LIENKE ET AL., INST. FOR POL'Y INTEGRITY, MAKING REGULATIONS FAIR: HOW COST-BENEFIT ANALYSIS CAN PROMOTE EQUITY AND ADVANCE ENVIRONMENTAL JUSTICE i (2021).

¹⁰ "Regulatory impact analysis" is the bureaucratic term for benefit-cost analysis.

¹¹ *Id.* at 2–3.

¹² John D. Graham, *Administrative Law and Economics*, 157 U. PA. L. REV. 395, 398–402 (2008).

deregulatory and regulatory actions, and it draws on my experience as Administrator of OIRA (2001-2006) and as a teacher of benefit-cost analysis. Section II of this article amplifies a recommendation I made soon after serving as OIRA administrator.¹³

Section I traces the intellectual underpinnings of benefit-cost analysis and environmental justice, as the two fields developed independently without any integration. Section II explains why a focus on the well-being of poor¹⁴ Americans is particularly compelling against the backdrop of the benefit-cost calculus, a focus that would be consistent with President Biden's agenda. Section III presents this article's proposal for integration of environmental justice into benefit-cost analysis and compares the proposal to a more fundamental reform, an income-weighted social welfare function. Section IV discusses two case studies focusing on clean air and safe drinking water that demonstrate how the proposal might work in practice. Ultimately this analysis concludes with a discussion of the proposal's technical, legal, and political feasibility.

I. FOUNDATIONS OF BENEFIT-COST ANALYSIS AND ENVIRONMENTAL JUSTICE

If we are to combine benefit-cost analysis and environmental justice, it is necessary to understand the historical underpinnings, assumptions, and limitations of the two concepts. This analysis argues that both concepts have appeal and that, if merged creatively, the composite concept can address some deficiencies of the other tool.

A. *Benefit-Cost Analysis*

In the 1930s, the British economists Nicholas Kaldor and John Hicks worked independently on the same question: how do we determine whether a new government policy has enhanced social welfare?¹⁵ They proposed the same answer with only subtle differences in approach.¹⁶ Their work has been described as the "Kaldor-Hicks efficiency test" or the "Kaldor-Hicks hypothetical compensation test."¹⁷ Prior to Kaldor and Hicks, the most promising idea was advanced by the Italian philosopher, sociologist, and economist

¹³ *Id.* at 520.

¹⁴ My understanding is that the term "poor" has a negative connotation in some contexts. That is certainly not my intention in this article. I am referring to persons living with incomes below the federally defined poverty threshold.

¹⁵ See RICHARD E. JUST ET AL., *THE WELFARE ECONOMICS OF PUBLIC POLICY: A PRACTICAL APPROACH TO PROJECT AND POLICY EVALUATION* 32 (2004).

¹⁶ For a textbook presentation of the Kaldor-Hicks test, including citations to original sources, see *id.* at 32-48.

¹⁷ *Id.* at 32.

Vilfredo Pareto in 1906.¹⁸ He suggested that a new government policy is efficient if it at least benefits some people without disadvantaging others.¹⁹ A society is considered “Pareto optimal” if there are no more Pareto-improving policies available, meaning that any further change in policy would make at least one person worse off.²⁰ Pareto assumed that individuals are normally the best judge of their own interests and are therefore qualified to determine whether a proposal would serve their interests.²¹ This is called the principle of consumer sovereignty, which similarly underpins the Kaldor-Hicks test.²² The Pareto principle is highly restrictive because it does not permit any losers.²³

The restrictions of Pareto’s principle inspired the creation of the Kaldor-Hicks test.²⁴ Kaldor and Hicks rejected Pareto’s principle because they wanted to encourage policies that are good for society, even if some citizens would lose.²⁵ They sought a more expansive definition of societal efficiency that would tolerate some degree of loss in exchange for compelling gains.²⁶ Thus, Kaldor and Hicks proposed a hypothetical compensation test: if the gainers from a policy gain enough that they could, hypothetically, compensate the losers and still be better off, then the proposed policy is an efficiency improvement.²⁷ The compensation of losers, usually considered in monetary terms, must be generous enough that the losers no longer feel worse off due to the proposed policy.²⁸ After the hypothetical compensation is paid, the surplus in gains that remains is considered a measure of the net gain in social efficiency from the proposed policy.²⁹

It is critical to note that, for purposes of the Kaldor-Hicks test, the compensation does not take place; it is purely hypothetical and serves as an

¹⁸ See generally VILFREDO PARETO, *MANUAL OF POLITICAL ECONOMY* (Ann S. Schwier and Alfred N. Page eds., Ann S. Schwier trans., Augustus M. Kelley Publishers 1971) (1906).

¹⁹ See *id.* at 451–52.

²⁰ Most would agree that Pareto-improving policies merit adoption but one can even object to the Pareto principle on equity grounds. AMARTYA SEN, *ON ETHICS & ECONOMICS* 32 (1987). (“A state can be Pareto optimal with some people in extreme misery and others rolling in luxury, so long as the miserable cannot be made better off without cutting into the luxury of the rich.”).

²¹ See JUST ET AL., *supra* note 15 at 32; see also John Graham, *Saving Lives Through Administrative Law and Economics*, *UNIV. PENN. LAW REV.* 408–10 (2008).

²² LEE S. FRIEDMAN, *THE MICROECONOMICS OF PUBLIC POLICY ANALYSIS* 24 (2002).

²³ Graham, *supra* note 21 at 410–11.

²⁴ *Id.* at 408–10.

²⁵ de Pony Sum, *The Effects of Kaldor-Hicks Improvements In An Oligarchical Society*, *MEDIUM* (Apr. 13, 2019), <https://medium.com/@sumdepony/the-effects-of-kaldor-hicks-compensation-in-an-oligarchical-society-102e318d502b>.

²⁶ Bostani Mostafa & Alireza Malekpoor, *Critical Analysis of Kaldor-Hicks Criterion, with Respect to Moral Values, Social Policy Making and Incoherence*, 6(7) *ADVANCES IN ENV’T BIOLOGY* 2032, 2032 (2012).

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

analytical construct.³⁰ If, however, the compensation is paid, then the proposed policy passes the stricter Pareto test.³¹ The most obvious concern is the uncompensated losers: How is it fair to deny the losers compensation based on the size of projected gains for the winners?³²

The defenders of the Kaldor-Hicks test offer two, albeit not entirely satisfying, responses. First, they contend that they are defending a concept of overall efficiency in the economy, not justice or overall societal good.³³ In the 1930s, some economists believed that concepts such as fairness and justice were matters for philosophy and ethics, entirely outside the purview of economics.³⁴ Just as physicists do not generally stray into the territory of biology, some economists were reluctant to stray into philosophy.³⁵ Second, defenders of the Kaldor-Hicks test envision numerous policy being adopted over time, where the winners and losers would not be the same on each proposal.³⁶ For example, a person that loses on Policy A may be a winner on Policy B or Policy C. If there is sufficient mixing of winners and losers over numerous policy decisions, then the vast majority of citizens will become net gainers under the Kaldor-Hicks test.³⁷ This is called the “repeated application” or “long-run argument” for the Kaldor-Hicks test.³⁸ The repeated-application argument is similar to the successful arguments economists have made to support airline deregulation, antitrust regulation, and free trade. In each case, there are losers from a single policy decision (e.g., some large established airlines went bankrupt because of the near-term competitive pressure of deregulation), but, in the long run, most people experienced net gains (e.g., as new airlines entered the market and offered consumers lower fares and better-quality service).³⁹

Soon after the Kaldor-Hicks test was proposed, it was challenged because it ignored the distribution of gains and losses.⁴⁰ One of the harshest critics of

³⁰ *Id.*

³¹ See MATTHEW D. ADLER, *ENCYCLOPEDIA OF L. & SOC'Y: AMERICAN AND GLOBAL PERSPECTIVES* 305–07 (David S. Clark ed., 2007).

³² My students are often stunned to learn that the Kaldor-Hicks test—simple and fragile as it is—represents the normative theoretical foundation of benefit-cost analysis.

³³ Stephen Coate, *An Efficiency Approach to the Evaluation of Policy Changes*, 110 *THE ECON. J.* 437, 441–42 (2000).

³⁴ See Timothy Taylor, *Economics and Morality*, *FIN. & DEV.* 34, 34 (June 2014).

³⁵ Hicks was neutral as to whether compensation should actually be paid. John R. Hicks, *The Foundations of Welfare Economics*, 49 *THE ECON. J.* 696, 711–12 (1939).

³⁶ Graham, *supra* note 21 at 414–17.

³⁷ A. Mitchell Polinsky, *Probabilistic Compensation Criteria*, 86 *Q. J. OF ECON.* 407, 416 (1972).

³⁸ Matthew D. Adler, *Beyond Efficiency and Procedure: A Welfarist Theory of Regulation*, 28 *FLA. ST. UNIV. L. REV.* 241, 252 (2000).

³⁹ For a discussion of the repeated-application rationale for the Kaldor-Hicks test, with references to foundational literature, see Graham, *supra* note 21 at 414–19.

⁴⁰ *Id.* at 420–22.

the test was a former doctoral student of Hicks named I.M.D. Little.⁴¹ He argued that the Kaldor-Hicks test is unpersuasive unless it is accompanied by a distributional test that ensures fairness.⁴² He did not propose a specific distributional test, but he stimulated numerous theories of distributional fairness.⁴³ The combination of the Kaldor-Hicks test and an unspecified distributional test became known as “Little’s test.”⁴⁴ Unfortunately, no consensus emerged regarding how the distributional test should be specified or implemented.⁴⁵ Instead, the economics literature veered off into a multi-decade search for mathematical social-welfare functions that incorporated both efficiency and equity.⁴⁶ This literature has been theoretically exciting and includes many “impossibility” theorems but has had no practical effect on the practice of benefit-cost analysis.⁴⁷

More recently, a different argument has been used to neutralize the distributional objection to the Kaldor-Hicks test.⁴⁸ Suppose there are persistent losers from multiple applications of the Kaldor-Hicks test. In that case, those losers should be compensated on a lump-sum basis rather than stalling every policy decision due to concerns for its losers. It has also been shown that it is more efficient to solve distributional problems through tax and income-security programs than to sacrifice some of the efficiency of regulatory policies.⁴⁹

A weakness in the income-security argument is that politicians have been slow to accomplish social justice in America. What happens in regulatory policy if Congress does not use tax and income-security policy to protect the interests of the poor? Suppose there are persistent losers from regulations, but Congress does not supply lump-sum compensation for their losses? The lack of sufficient answers to these two questions has been underscored by the environmental justice literature.

B. Environmental Justice

⁴¹ See I.M.D. LITTLE, *A CRITIQUE OF WELFARE ECON.* 90–91 (2d ed. 1957).

⁴² See *id.*; see also Kenneth J. Arrow, *Little’s Critique of Welfare Economics*, 41 *AM. ECON. REV.* 923, 923 (1951).

⁴³ See generally KENNETH J. ARROW, *SOCIAL CHOICE & INDIVIDUAL VALUES* (2d ed. 1963).

⁴⁴ See I.M.D. Little, *Welfare Criteria, Distribution, and Cost-Benefit Analysis*, in *ECON. HUM. WELFARE: ESSAYS IN HONOR OF TIBOR SCITOVSKY* 125, 131 (Michael J. Boskin ed., 1979).

⁴⁵ Graham, *supra* note 21 at 422.

⁴⁶ See *id.* at 420–21.

⁴⁷ See generally Arrow, *supra* note 43; see generally YEW-KWANG NG, *SOC. WELFARE AND ECON. POL’Y* 79, 83 (1990); Amartya Sen, *The Possibility of Social Choice*, 89 *AM. ECON. REV.* 349, 351 (1999).

⁴⁸ See LITTLE, *supra* note 41 at 91.

⁴⁹ Louis Kaplow & Steven Shavell, *Why the Legal System is Less Efficient Than the Income Tax in Redistributing Income*, 23 *J. LEGAL STUD.* 667, 674 (1994); David A. Weisbach, *Distributionally Weighted Cost-Benefit Analysis: Welfare Economics Meets Organizational Design*, 7 *J. OF LEGAL ANALYSIS* 151, 152 (2015).

It is debatable how far back one should go to describe the quest for justice. In modern times, one could point to the reasoning and protests of Mahatma Gandhi of India prior to World War II or to the philosophical writings of Harvard professor John Rawls in the 1970s, who emphasized society's moral obligation to protect the interests of those in society's most vulnerable populations.⁵⁰ The contemporary exposition of environmental justice begins with the investigative work of the United Church of Christ and the writings of sociologist and activist Robert D. Bullard.⁵¹

The United Church of Christ sponsored the Commission for Racial Justice, which uncovered and documented the disproportionate exposure of African Americans to toxic wastes in the United States.⁵² The Commission for Racial Justice published a report in 1987 that drew attention to the roles of poverty and racism in determining who bears the burden of environmental pollution.⁵³ Bullard followed in 1990 with the first edition of *Dumping in Dixie*, a vivid account of several southern communities where African Americans incur a disproportionate share of the exposure and disease from exposure to hazardous waste.⁵⁴ The wastes are not typically generated by those exposed; rather, they are generated by the middle-class and upper-class lifestyles of predominantly white America.⁵⁵ Within a decade, the literature on environmental justice exploded, reaching into virtually every aspect of environmental quality: outdoor air pollution, indoor air pollution, surface water pollution, groundwater pollution, contamination of drinking water, and even the impacts of global climate change.⁵⁶ To advance the cause of environmental justice, the National Research Council of the National Academies made numerous recommendations for improved research, education, and public policy.⁵⁷

⁵⁰ See generally JOHN RAWLS, A THEORY OF JUSTICE, 75–78 (1971) (development of the difference principle); Harrison Jacobs, *Gandhi's 1940 Letter to Adolf Hitler: Seek Peace or Someone Will 'Beat You With Your Own Weapon'*, BUS. INSIDER (Apr. 2, 2015), <https://www.businessinsider.com/gandhis-1940-letter-to-adolf-hitler-2015-4>.

⁵¹ See *infra*, Section I.A.

⁵² See COMM'N FOR RACIAL JUST.: UNITED CHURCH OF CHRIST, TOXIC WASTES AND RACE IN THE UNITED STATES: A NATIONAL REPORT ON THE RACIAL AND SOCIO-ECONOMIC CHARACTERISTICS OF COMMUNITIES WITH HAZARDOUS WASTE SITES ix (1987).

⁵³ See *id.* at ix–xi.

⁵⁴ See generally ROBERT D. BULLARD, DUMPING IN DIXIE: RACE, CLASS, AND ENVIRONMENTAL QUALITY (Routledge 3d ed. 2018).

⁵⁵ *Id.* at 7.

⁵⁶ *The Economics of Environmental Justice*, with Samuel Stolper and Catherine Hausman, RES. RADIO (Mar. 3, 2020), <https://www.resources.org/resources-radio/economics-environmental-justice-samuel-stolper-and-catherine-hausman/> [hereinafter *The Economics of Environmental Justice*]; see H. SPENCER BANZHAF ET AL., ENVIRONMENTAL JUSTICE: ESTABLISHING CAUSAL RELATIONSHIPS 377 (2019).

⁵⁷ INST. OF MED., TOWARDS ENVIRONMENTAL JUSTICE: RESEARCH, EDUCATION, AND HEALTH POLICY NEEDS (1999), <https://pubmed.ncbi.nlm.nih.gov/23035313/>; see BANZHAF, ET AL., *supra* note 57 at 377.

Even in the absence of racism, basic economics would predict that poor Americans will experience elevated exposure to pollution.⁵⁸ Households with higher incomes buy access to cleaner communities, neighborhoods, foods, products, and transport vehicles.⁵⁹ Systemic racism, expressed through both market and governmental mechanisms, causes people of color to experience elevated rates of pollution exposure.⁶⁰ The interaction of poverty and race is therefore expected to create disproportionately higher rates of pollution exposure and pollution-related disease. The good news is that some environmental regulatory programs, even though they were not designed to accomplish justice, have diminished the differences in pollution exposure between Black and white populations. This has been shown quite clearly using satellite data of human exposures to particulate air pollution before and after the implementation of the Environmental Protection Agency's ("EPA") new particulate air quality standard.⁶¹ As encouraging as this example is, one cannot generalize from the Clean Air Act experience because each environmental regulatory program is designed and enforced differently.

In the field of environmental regulation, President Clinton issued an executive order to promote environmental justice.⁶² The EPA has had a standing advisory committee on environmental justice for years.⁶³ Nonetheless, by 2008 little progress on environmental justice had occurred.⁶⁴ The EPA under President Obama made progress with an explicit plan on environmental justice; implementation of the plan was uneven.⁶⁵ An in-depth review of the EPA's entire 50-year history concluded that environmental justice did not receive sustained attention at the agency, especially with respect to regulatory development and enforcement.⁶⁶ Some authors argue that the neglect of environmental justice may reflect the origins of the modern environmental movement, which was dominated by highly educated and privileged white

⁵⁸ *The Economics of Environmental Justice*, *supra* note 57.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ Janet Currie et al., *What Caused Racial Disparities in Particulate Exposure to Fall? New Evidence From the Clean Air Act and Satellite-Based Measures of Air Quality 2* (Nat'l Bureau of Econ. Research, Working Paper No. 26659, 2021).

⁶² Exec. Order No. 12898, 59 Fed. Reg. 32 (Feb. 16, 1994).

⁶³ For a review of previous federal efforts to promote environmental justice, see Richard L. Revesz, *Regulation and Distribution*, 93 NYU L. REV. 1489, 1525 (2018).

⁶⁴ Robert D. Bullard et al., *Toxic Wastes and Race at Twenty: Why Race Still Matters After All of These Years*, 38 ENV'T L. 371, 377 (2008).

⁶⁵ See FAILED PROMISES: EVALUATING THE FEDERAL GOVERNMENT'S RESPONSE TO ENVIRONMENTAL JUSTICE (David M. Konisky ed. 2015).

⁶⁶ DAVID M KONISKY, FIFTY YEARS AT THE US ENVIRONMENTAL PROTECTION AGENCY: PROGRESS, RETRENCHMENT, AND OPPORTUNITIES 547 (A. James Barnes et al. eds., 2021).

people.⁶⁷ Efforts to foster collaboration between organized environmentalists and social justice advocates were too limited.⁶⁸

A key question, then, is how to incorporate concerns about justice into the formal regulatory impact analyses used to design and support regulatory alternatives.⁶⁹ Until the Biden administration, the conventional view was that environmental justice must be separate from benefit-cost analysis for several reasons.⁷⁰ First, there was no obvious place for justice in a tool of social efficiency. Second, few environmental justice advocates were trained in benefit-cost analysis.⁷¹ And lastly, some of the underlying assumptions of benefit-cost analysis seemed irreconcilable with the analysis; for instance, the common measure of environmental benefit, expressed through consumer willingness to pay for the environmental improvement, appeared hostile to the interests of communities with relatively little ability to pay.⁷² To its credit, the Biden administration is demanding a more justice-sensitive approach to the benefit-cost analysis of regulatory alternatives.⁷³

II. THE CASE FOR A FOCUS ON IMPOVERISHED AMERICANS

Like many statements of political priority, the Biden equity agenda refers broadly, without explicit definition, to “disadvantaged, vulnerable, and marginal communities.”⁷⁴ This section argues that a modest and useful place to start is protecting poor people from ill-considered rulemakings, a focus that is certainly consistent with the Biden agenda.⁷⁵

⁶⁷ See Jedediah Purdy, *Environmentalism’s Racist History*, NEW YORKER (Aug. 13, 2015), <https://www.newyorker.com/news/news-desk/environmentalisms-racist-history>.

⁶⁸ PAUL SABIN, PUBLIC CITIZENS: THE ATTACK ON BIG GOVERNMENT AND THE REMAKING OF AMERICAN LIBERALISM 104–05 (2021).

⁶⁹ H. Spencer Banzhaf, *Regulatory Impact Analyses of Environmental Justice Effects* 6 (Nat. Ctr. for Env’t Econ., Working Paper No. 10-08, 2010); Jonathan I. Levy, *Accounting for Health Risk Inequality in Regulatory Impact Analysis: Barriers and Opportunities*, 41 RISK ANALYSIS 610, 611–12 (2021); see also Cass R. Sunstein, *Some Costs & Benefits of Cost-Benefit Analysis*, 150 DAEDALUS 208, 208 (2021).

⁷⁰ Jorge Roman-Romero & Mariana Munoz, *Unweighted Cost-Benefit Analysis Under Arbitrariness & Environmental Justice Principles*, VT. J. OF ENV’T L., <https://vjel.vermontlaw.edu/unweighted-cost-benefit-analysis-under-arbitrariness-environmental-justice-principles> (last visited Apr. 1, 2022).

⁷¹ Morgan Lewis, *President Biden’s ‘Modernizing Regulatory Review’ Memorandum*, JD SUPRA (Mar. 1, 2021), <https://www.jdsupra.com/legalnews/president-biden-s-modernizing-1619702/>.

⁷² *Id.*

⁷³ Roman-Romero & Munoz, *supra* note 70.

⁷⁴ *Id.*

⁷⁵ President Biden seeks specifically protection of “persons adversely affected by persistent poverty or inequality.” FY 2022-2026 EPA STRATEGIC PLAN DRAFT 38 (Envntl. Prot. Agency, 2021), <https://www.epa.gov/system/files/documents/2021-10/fy-2022-2026-epa-draft-strategic-plan.pdf>.

The federal government already has two formal measurements of poverty.⁷⁶ The first is the official Census definition, in use since the 1960s, and the second is a supplemental measure that accounts for some of the deficiencies in the official measure.⁷⁷ In 2020, a family of four was considered “poor” by the Census Bureau if its household income was less than \$26,496.⁷⁸ The official Census measure does not adjust for geographical differences in the cost of living and for in-kind sources of income, such as Medicaid and SNAP food benefits.

Both Census measures suggest that more than 10% of Americans are poor.⁷⁹ However, the official measure is largely comprised of rural residents and children, while the supplemental measure is comprised of relatively more urban residents and the elderly.⁸⁰ According to the official measure, 11.4% of Americans were poor in 2020, up from 10.5% in 2019.⁸¹ This is the first increase in the U.S. poverty rate since the Great Recession of 2007-2009, as the poverty rate was steadily declining until the onset of the COVID-19 epidemic.⁸² In absolute numbers, 37.2 million Americans experienced poverty in 2020, though many of those people moved in and out of poverty during the year.⁸³

One of the advantages of using poverty as a focal point for regulatory analysis of justice is that the U.S. poverty measure highlights the needs of people of color. According to the official measure, the rate of poverty among Black people, 19.5%, and Hispanic people, 17.0%, is much higher than the rate of poverty among non-Hispanic white people, 8.2%.⁸⁴ A focus on the poor does not address racism *per se*, but many of the victims of racism, especially those unable to combat racism, are poor. By protecting poor people from bad regulations, regulators would protect people of color.

Another reason to focus on poverty is that the case for special regulatory protection based on race alone is less convincing. Certainly, the protection of middle-class and upper-class Hispanic and Black people may not be as compelling as the case for protecting poor white people. The heads of poor white

⁷⁶ EMILY A. SHRIDER ET AL., INCOME AND POVERTY IN THE UNITED STATES: 2020 1 (U.S. Census Bureau, 2021).

⁷⁷ *Id.*

⁷⁸ *Poverty Thresholds for 2020 by Size of Family and Number of Related Children Under 18 Years*, U.S. CENSUS BUREAU, www2.census.gov/programs-surveys/cps/tables/time-series/historical-poverty-thresholds/thresh20.xls (last revised Jan. 19, 2022).

⁷⁹ SHRIDER ET AL., *supra* note 76 at 1.

⁸⁰ KRISTIN SEEFELDT & JOHN D. GRAHAM, AMERICA’S POOR AND THE GREAT RECESSION 26 (Ind. Univ. Press 2013) (showing different measures of poverty).

⁸¹ SHRIDER ET AL., *supra* note 76 at 1.

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

households have some similar statistical tendencies as the heads of poor Black and Hispanic households: low levels of education, unstable employment, and impaired family structure.⁸⁵ In the Rawlsian formulation of justice as fairness, the priority is protecting the least advantaged segment of the population.⁸⁶ It is easier to defend the poor as a least-advantaged group than to defend any other group that includes middle-class and upper-class Americans.

This article focuses on impoverished Americans as the focal point for justice analysis. Nonetheless, the principles and procedures discussed apply to any subset of the “disadvantaged, vulnerable, and marginal communities,” assuming the subset is well-defined enough to be measured objectively. A more focused definition of poverty would exclude episodically poor people, meaning those who are poor for only a short period and isolate those who are persistently poor.⁸⁷ Alternatively, one could broaden the coverage to low-income Americans living within 150% or 200% of the official poverty line.⁸⁸ Many public assistance programs take this approach because it is very difficult for a family of four to survive with an income at the poverty line.⁸⁹

III. A POVERTY-FOCUSED PROPOSAL

When a new rulemaking is proposed, regardless of whether it is an act of regulation or deregulation, OIRA requires agencies to show that the overall society-wide benefits justify the costs of the proposed regulation.⁹⁰ This is the Kaldor-Hicks test. This article proposes a new, second component of OIRA review. This new component would be a Kaldor-Hicks test considering only the costs and benefits experienced by poor people. This component will be satisfied if the benefits to the poor justify the costs to the poor.⁹¹ If the regulatory agency persuades OIRA that both Kaldor-Hicks tests are favorable for a proposal, then the proposal should be approved. If the agency

⁸⁵ *Id.* at 19.

⁸⁶ *See generally* RAWLS, *supra* note 50.

⁸⁷ Stephanie Cellini et al., *The Dynamics of Poverty in the United States: A Review of Data, Methods, and Findings*, 27 J. POL'Y ANALYSIS & MGMT. 40–46 (2008) (explaining that 50% of poverty spells are less than a year, 75% less than 4 years; female heads of households and blacks experience disproportionately long spells of poverty; long spells of poverty are related to employment problems, poor health, low levels of education, and family disruption).

⁸⁸ SEEFELDT & GRAHAM, *supra* note 80 at 20.

⁸⁹ *See id.* at 59–61 (showing examples of assistance programs).

⁹⁰ Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (Oct. 4, 1993).

⁹¹ Here, I build on a suggestion I made in 2008, soon after serving in the George W. Bush administration. Graham, *supra* note 21 at 515–34.

reports that both Kaldor-Hicks tests are unfavorable, OIRA rejection of the proposal should be considered.⁹²

A challenging issue arises when the results of the two Kaldor-Hicks tests are conflicting. If societal net benefits are positive, but net benefits to the poor are negative, the proposal has a justice/inequity flaw.⁹³ In that case, OIRA should advise the agency to revise the proposal in ways that would eliminate or reverse the injustice. This might occur by redesigning the regulation or offering a public subsidy to poor communities that bear costs or risks due to the regulation.⁹⁴ Also difficult is the case where the regulation has negative net benefits for society but offers positive net benefits to the poor.

One is tempted to argue that justice demands that this regulation be approved since it presumably passes the Rawlsian “justice as fairness” principle by advancing the interests of the least well-off members of society. However, there are two dangers to this line of thinking. First, a costly regulation that does nothing to advance the statutory mission of the regulatory agency could potentially offer positive net benefits to the poor. If the statutory mission is not advanced, the regulation will be vulnerable to judicial reversal on appeal. Second, insofar as the rule is simply a redistributive measure,⁹⁵ one should consider whether it would be more effective and efficient to help the poor directly through the tax and income-security system. If the political will exists to enact and tolerate a redistributive regulation that helps the poor at the expense of society, the political will might also exist, at least in some cases, to legislate a change in tax or income security system to accomplish the same or even greater gain for the poor. Nonetheless, there may be cases where it is sensible to enact a regulation that has large net benefits for the poor but only small negative net benefits for society. This might occur when the poor experience most of the risk-reduction benefits of the rulemaking, but do not incur any of the costs of the rule.

In contrast to this article’s proposal, a more fundamental change—which has been implemented to some extent in the United Kingdom—introduces weights on benefits and costs based on the income level of the affected

⁹² Rejection would not be automatic because, for example, some rulemaking proposals – even bad ones – are required by statute.

⁹³ Societal net benefits are defined as the benefits minus costs.

⁹⁴ Revesz, *supra* note 63 at 1489 (describing the POWER+ program, a model funding initiative that sought to mitigate the economic burdens coal mining communities would suffer as a result of the Clean Power Plan).

⁹⁵ A “redistributive measure” is a Robin Hood-esque effort to take from the rich to give to the poor. *Redistributive*, CAMBRIDGE BUS. ENGLISH DICTIONARY, <https://dictionary.cambridge.org/us/dictionary/english/redistributive> (last visited Apr. 1, 2022).

citizen.⁹⁶ The weights would be progressive in nature, which means that \$1 in benefit to the poor receives greater social weight than \$1 in benefit to the wealthy.⁹⁷ Both the costs and benefits to the poor receive greater weight than the costs and benefits to the wealthy. Moreover, benefits and costs to the middle class would receive greater weight than benefits and costs to the upper-income class. This is sometimes referred to as “weighted benefit-cost analysis,” distinguishable from the standard Kaldor-Hicks analysis, sometimes called “unweighted benefit-cost analysis.”⁹⁸

The fundamental change in the Kaldor-Hicks analysis proposed by Professor Matthew Adler has several advantages.⁹⁹ First, it reflects the modern conception of societal well-being, which posits that well-being is a function of both the average level and the distribution of well-being in society.¹⁰⁰ Societies with more equal distributions of well-being may be more stable and functional, in addition to being more just societies.¹⁰¹ Second, the fundamental change does not have the sharp distinction between the poor and non-poor that this article proposes. Whenever the government tries to establish bright lines, there will be difficulties and controversies about people who reside near that bright line. The fundamental change has no bright lines since the weights are a continuous, gradual function of household income.

Despite the advantages of the income-weighted alternative, this article's proposal has practical advantages, and is more legally and politically feasible. From a practical perspective, a regulatory analyst will find it more tractable to collect information on the impacts of regulation on poor people than to collect information on the impacts of every income group in society. The analytic dimensions grow further if the Biden administration also wants weights for different subsets of the “disadvantaged, vulnerable and marginal” communities. The Census Bureau already has established measures of poverty

⁹⁶ Zachary Liscow, *Equity in Regulatory Cost-Benefit Analysis*, L. & POL. ECON. PROJECT (Oct. 4, 2021), <https://lpeproject.org/blog/equity-in-regulatory-cost-benefit-analysis/>.

⁹⁷ The term “progressive” here is a term of art in the public finance literature. A progressive tax is one that consumes a higher percentage of income at higher income levels than at lower income levels. *Progressive Tax*, HIGHER ROCK EDUC. & LEARNING, INC., <https://www.higherrockeducation.org/glossary-of-terms/progressive-tax> (last visited Apr. 1, 2022).

⁹⁸ I don't encourage my students to use such terms because there are implicit weights in the Kaldor Hicks test. Income levels influence the measurement of benefits and costs in traditional benefit-cost analysis, which is why some scholars want to shift to a metric other than dollars such as happiness or quality-adjusted life years. A deeper discussion of this issue is beyond the scope of this article.

⁹⁹ See generally ADLER, *supra* note 31; MATTHEW D. ADLER & ERIC A. POSNER, NEW FOUNDATIONS FOR COST-BENEFIT ANALYSIS (2006).

¹⁰⁰ Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 968 (2001) (defining welfare broadly to include levels of individual well-being and the distribution of well-being among citizens).

¹⁰¹ RICHARD WILKINSON & KATE PICKETT, *THE SPIRIT LEVEL: WHY GREATER EQUALITY MAKES SOCIETIES STRONGER* 5–10 (Bloomsbury Press 2010) (2009).

regulatory analysts can use.¹⁰² Since Rawlsian justice focuses on the least advantaged segment of society, we should not add any more complexity to the regulatory analysis than is necessary to accomplish justice. Legally, it could be argued that unelected bureaucrats in the executive branch may not specify explicit weights for different groups in society without explicit legislative authorization.¹⁰³ The odds of judicial reversal seem high without legislative authorization of such a sweeping change.

Finally, from a political perspective, it seems needlessly controversial to engage in a divisive deliberation about how much weight should be allocated to the middle class versus the rich and the very rich. Indeed, so much political capital could be expended on specifying proper weights for the huge range of non-poor that the political system might not devote sufficient attention to the weights for the poor. This concern is underscored if the Biden administration focuses not just on the poor but on other segments of the disadvantaged, vulnerable and marginalized communities in America.

IV. CASE STUDIES OF CLEAN AIR AND SAFE DRINKING WATER

This section presents two case studies on how this article's proposal might work in practice. The cases illustrate the practical operation of the new poverty test, as well as the new information requirements that agencies must satisfy to implement the poverty test. These cases are of contemporary interest to the Biden administration and the Congress because they are now working on these issues.

A. Reducing Tailpipe Pollution from New Cars and Light Trucks

In its current regulatory analysis, the EPA examines the society-wide benefits of reducing air pollution from motor vehicles.¹⁰⁴ It compares those benefits to the compliance costs of adding pollution-control equipment to cars.¹⁰⁵ The EPA does not currently analyze whether the impacts of the tailpipe standards on the poor are favorable or unfavorable, nor does it collect regular data on pollution exposure by income status.¹⁰⁶ This is because the pollution

¹⁰² EMILY A. SHRIDER ET AL., U.S. DEPT' COMM., INCOME AND POVERTY IN THE UNITED STATES: 2020-23 (2021), <https://www.census.gov/content/dam/Census/library/publications/2021/demo/p60-273.pdf>.

¹⁰³ Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2262 (2001).

¹⁰⁴ See OFF. AIR QUALITY PLAN. STANDARDS, U.S. EPA, REGULATORY IMPACT ANALYSIS FOR THE PROPOSED EMISSION GUIDELINES FOR GREENHOUSE GAS EMISSIONS FROM EXISTING ELECTRIC UTILITY GENERATING UNITS; REVISIONS TO EMISSION GUIDELINE IMPLEMENTING REGULATIONS; REVISIONS TO NEW SOURCE REVIEW PROGRAM, ES-10-ES-20 (2018), https://www.epa.gov/sites/default/files/2018-08/documents/utilities_ria_proposed_ace_2018-08.pdf.

¹⁰⁵ See generally *id.* at ES-5.

¹⁰⁶ Kylie Conrad & John D. Graham, *The Benefits and Costs of Automobile Regulations for Low-Income Americans*, 12 J. BENEFIT COST ANALYSIS 518, 525 (2021).

data are merely collected for compliance purposes.¹⁰⁷ The EPA sets the same air quality standards for all communities regardless of income status.¹⁰⁸

The good news is that public health researchers have begun to make progress in understanding the incidence of pollution exposure and adverse health effects among low-income people.¹⁰⁹ Since the urban poor often live near roadways, where rent and property values are lower, they inhale relatively more of some pollutants that are emitted directly from tailpipes.¹¹⁰ There is also some evidence that low-income people are more biologically susceptible to pollution-related diseases because of their greater baseline rates of cardiovascular diseases and the stresses of life in poverty that accelerate chronic diseases' progression.¹¹¹

Agencies do not know much about the preferences of low-income people regarding clean air and the health risks that follow air pollution. Specifically, information is needed about how much low-income people care about significant improvement in air quality compared to other advantages in life they could purchase with their constrained income. If the costs of controlling air pollution from motor vehicles are not incurred by the poor, then acquiring this preference information is not critical. A regulatory analyst could work with the simplified assumption that poor Americans value a given reduction in health risk the same as middle-income Americans do.

Who incurs the cost of installing pollution-control equipment on new motor vehicles? A naïve answer is that automobile manufacturers incur the costs since they are required to comply with the standards. Insofar as all companies in the industry incur compliance costs, it is likely that most of the costs are passed on to consumers in the form of higher prices for new cars.¹¹² Private passenger vehicles are crucial to meeting the daily transport needs of the poor.¹¹³ Public transit systems in many U.S. cities are inadequate, and many poor people live in rural areas where cars are a necessity. Access to a car is

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 520.

¹⁰⁹ See Yan Wang et al., *Estimating Causal Effects of Long-Term PM_{2.5} Exposure on Mortality in New Jersey*, 124 ENV'T HEALTH PERSPS. 1182, 1182 (2016) (identifying negative effects of long-term PM_{2.5} exposure in low-income individuals).

¹¹⁰ DAVID REICHMUTH, UNION OF CONCERNED SCIENTISTS: FACT SHEET: INEQUITABLE EXPOSURE TO AIR POLLUTION FROM VEHICLES IN CALIFORNIA: WHO BEARS THE BURDEN? 7 (2019); Janet Currie & Reed Walker, *Traffic Congestion and Infant Health: Evidence from E-Z Pass*, 3 AM. ECON. J.: APPLIED ECON. 65, 68 (2011).

¹¹¹ See Quan Di et al., *Association of Short-term Exposure to Air Pollution with Mortality in Older Adults*, 318 J. AM. MED. ASS'N 2446, 2452, 2454 (2017) (identifying some of the factors that may cause at-risk populations to be more susceptible to increased PM_{2.5}-related mortality rates).

¹¹² Anne Gron & Deborah L. Swenson, *Cost Pass-Through in the U.S. Automobile Market*, 82 REV. ECON. & STAT. 316, 323 (2000).

¹¹³ ROLF PENDALL ET AL., WHAT IF CITIES COMBINED CAR-BASED SOLUTIONS WITH TRANSIT TO IMPROVE ACCESS TO OPPORTUNITY 2 (2016).

strongly correlated to educational progress, employment access, and higher earnings for the poor.¹¹⁴ About 40% of poor households own two or more cars, about 40% have one car, and the remaining 20% have no car.¹¹⁵ Since the poor cannot usually afford new cars, they rely primarily on used vehicles.¹¹⁶

The EPA does not currently have a rigorous understanding of how higher prices on new vehicles impact the prices of used vehicles. There is a strong historical correlation between new and used car prices, suggesting that higher prices for new cars may elevate prices for used cars.¹¹⁷ This information is crucial to understanding how new car standards impact the poor. If the poor experience higher prices for their used cars due to regulations on new cars, then those price burdens need to be weighed against the health and other benefits of diminished pollution exposure due to cleaner cars.

In summary, it is feasible for the EPA to conduct a benefit-cost analysis of tailpipe pollution standards from the perspective of the poor. It seems likely that the standards deliver significant health improvements for the poor, but the EPA needs to collect systematic data on pollution exposure by household income status. Additionally, new information needs to be collected on how much used-car prices are impacted by new-car regulations, and how much the poor care about air quality compared to other goods in life. This article argues the government will do the poor no favors if it makes cars so expensive that the poor cannot afford them, even if the expensive cars are “cleaner.”

B. Drinking Water Quality

Access to safe drinking water is a disproportionate challenge for the poor.¹¹⁸ Both the urban and rural poor incur elevated exposures to certain drinking-water contaminants.¹¹⁹ As exemplified by the Flint, Michigan lead crisis, lead in drinking water is likely a problem experienced disproportionately by poor urban residents.¹²⁰ Higher-income residents are more likely to have newer, lead-free piping systems or have their lead-based piping systems maintained on a regular basis.¹²¹ Arsenic in drinking water is primarily a

¹¹⁴ *Id.* at 2–3.

¹¹⁵ *Id.* at 5.

¹¹⁶ *Id.* at 2.

¹¹⁷ Conrad & Graham, *supra* note 106 at 540–42.

¹¹⁸ J. Tom Mueller & Steven Gasteyer, *The Widespread and Unjust Drinking Water and Clean Water Crisis in the United States*, 12 NATURE COMM'NS 1, 2, 4 (2021).

¹¹⁹ *Id.* at 5; *Water Color: Water Sector Reform #5: Environmental Justice*, MANNY TEODORO (Sept. 17, 2019), <https://mannyteodoro.com/?p=1209>.

¹²⁰ *Water Color: Water Sector Reform #5: Environmental Justice*, *supra* note 119.

¹²¹ See JAMES SALTZMAN, SAFE DRINKING WATER, FIFTY YEARS AT THE US ENVIRONMENTAL PROTECTION AGENCY: PROGRESS, RETRENCHMENT, AND OPPORTUNITIES, 211, 211–14, (A. James Barnes, John D. Graham & David M. Konisky eds., 2011) (discussing the water crisis in Flint, Michigan).

problem in rural America, where wealthier residents shy away from buying homes in areas with high naturally-occurring levels of arsenic in drinking water.¹²² Safe drinking water moreover improves health outcomes.¹²³

The EPA performs society-wide benefit-cost analysis of new drinking-water standards and separate affordability analyses for small water systems. However, affordability analysis focuses exclusively on households with median household income in the US.¹²⁴ In other words, the EPA does not undertake affordability or benefit-cost analyses for the poor.¹²⁵

Both lead and arsenic in drinking water are associated with health risks. Lead exerts neurological effects on exposed children, while arsenic is associated with certain kinds of cancer.¹²⁶ Since poor Americans experience elevated exposures to both lead and arsenic, the health improvements from lead and arsenic control should be larger for the poor.¹²⁷ The willingness of Americans to pay for safer drinking water needs to be studied carefully, as poor households struggle to pay the cost of basic necessities such as food, housing, and transport.¹²⁸ More precise information about the monetary benefits of safer drinking water for the poor is needed.

It may seem harsh or cruel to force the poor to choose between safe drinking water and safe food, housing, and transportation. This tradeoff does not need to be addressed if the EPA can find a structural solution that provides safe drinking water at no cost to the poor. However, if the EPA rulemaking is a typical regulation of water utilities, the poor will pay some of the costs through higher water bills.

Controlling the levels of lead and arsenic in drinking water can be expensive. Significant capital investments are required to control drinking water contaminants, and those costs are typically reflected in the rates that water utilities charge their customers.¹²⁹ In most states, poor Americans pay the

¹²² See *id.* at 223–24 (discussing the water crisis in Flint, Michigan).

¹²³ See generally *Drinking Water Contaminant Human Health Effects Information*, EPA, <https://www.epa.gov/sdwa/drinking-water-contaminant-human-health-effects-information> (last visited Mar. 2, 2022) (listing resources exploring the human health impacts of various water contaminants).

¹²⁴ THE THURGOOD MARSHALL INSTT., NAACP LEGAL DEF. AND EDUC. FUND, INC., *WATER/COLOR: A STUDY OF RACE & THE WATER AFFORDABILITY CRISIS IN AMERICA'S CITIES* 4, 26 (2019).

¹²⁵ Robert S. Raucher et al., *Benefit-Cost Analysis for Drinking Water Standards: Efficiency, Equity, and Affordability Considerations in Small Communities*, J. BENEFIT-CROSS ANALYSIS (2011).

¹²⁶ *Arsenic and Cancer Risk*, AME. CANCER SOC'Y, <https://www.cancer.org/cancer/cancer-causes/arsenic.html> (last visited March 4, 2022); *Health Problems Caused by Lead*, CDC (Dec. 8, 2021), <https://www.cdc.gov/niosh/topics/lead/health.html>.

¹²⁷ SEEFELDT & GRAHAM, *supra* note 106.

¹²⁸ See generally *id.*

¹²⁹ SALTZMAN, *supra* note 121 at 233.

same rates for water use as other Americans do.¹³⁰ Insofar as drinking water regulations cause an increase in the rates charged for drinking water, poor households are burdened and may face an affordability issue.¹³¹

As was the case with auto tailpipe regulation, it is feasible for the EPA to conduct benefit-cost analysis from the perspective of the poor as well as for everyone. Ultimately, the EPA needs better information about contaminant exposure and adverse health effects among poor households, the willingness of the poor to pay higher rates for water-quality improvements, and the structure and dynamics of water utility bills as they impact the poor.

CONCLUSION

Under current practice, federal agencies rarely analyze the impact of rule-making on the poor. Agencies should be required by OIRA to analyze how the poor will be impacted. If the federal rulemaking process has society-wide net benefits but hurts the poor, OIRA should work with the agency to modify the design of the rule or provide federal funding to make the rule a good deal for the impacted poor. If a rule or regulation hurts society but helps the poor, the ramifications are more complex. Legally, it may be difficult for the agency to defend such a rule without a statutory authorization for environmental justice. Nonetheless, if the society-wide analysis is a close call, but slightly negative, it may be wise to proceed with the rule if it offers compelling net benefits for the poor.

This article's proposal has been framed in the context of the welfare of poor Americans, which are generally accepted as an important group to consider from an environmental justice perspective. This analysis makes a practical argument for starting the justice innovation with a focus on the poor broadly before covering each of the various subpopulations that have experienced injustice. This article argues for reform of the federal rulemaking process. The proposal adds a second prong to the society-wide benefit-cost test in regulatory impact analysis: the agency must also estimate the benefits and costs of the rulemaking among the poor and demonstrate that the benefits to the poor justify the costs to the poor. The addition of this second prong provides a direct avenue for environmental justice information to enter the formal process of regulatory impact analysis.

¹³⁰ *Id.* at 223–24.

¹³¹ *Improving the Evaluation of Household-Level Affordability in SDWA Rulemaking: New Approaches*, AM. WATER WORKS ASS'N (Apr. 2021), <https://www.awwa.org/Portals/0/AWWA/Government/ImprovingtheEvaluationofHouseholdLevelAffordabilityinSDWARulemakingNewApproaches.pdf>.

A. Feasibility

This analysis explored two short case studies, one about clean air and the other about safe drinking water, to illustrate how agencies would perform benefit-cost analysis of regulations that impact the poor. This article concludes that the analysis is technically feasible if federal agencies invest in the new data collection that would be required to perform the poverty-focused analyses. OIRA will need to cooperate in the new data collection, as the Paperwork Reduction Act provides OIRA authority to approve or disapprove all new information collections proposed by federal agencies.

B. Is the proposal lawful?

OIRA already has authority from Congress to issue technical guidance on regulatory impact analysis. The proposal could be incorporated into the forthcoming Biden administration modernization of OMB Circular A-4 (2003), which instructs agency analysts on how regulatory impact analyses should be conducted.¹³²

C. Is the proposal politically viable?

This proposal may not be politically viable because the positions of progressives and conservatives are difficult to predict and may be related to how the proposal is framed by the Biden administration. The proposal may not be dramatic enough to satisfy some progressive advocates of regulatory reform. The administration might be inclined to support an income-weighted social welfare function; income weighting, though theoretically appealing, has shortcomings from a legal and political perspective. Some progressives might prefer to eliminate benefit-cost analysis entirely, but such a radical change would not likely be durable.

The reactions of conservatives to the proposal are even more difficult to predict and may depend on details of how the proposal is framed when it is proposed. Many low-income whites, which are part of the conservative base, may be sympathetic with the proposal. If conservatives opposed the proposal, they could not stop the Biden administration from adopting it and implementing it. Once the Biden administration has implemented the new approach for a year or two, I doubt that a new Republican administration would make the effort to repeal it because other initiatives would have a higher priority in a new Republican administration.

In summary, formal regulatory impact analysis in the federal government currently focuses on comparing society-wide benefits of a rule to society-wide costs of the rule. I have proposed an additional equity comparison: whether the rule will make America's poor better off or worse off. The

¹³² Modernizing Regulatory Review, 86 Fed. Reg. 15 (Jan. 26, 2021).

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proposal is feasible for the agencies and OIRA to implement and is consistent with President Biden's regulatory modernization agenda.

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