

PARTIAL VALUATION IN COST–BENEFIT ANALYSIS

ARDEN ROWELL*

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INTRODUCTION

The National Highway Traffic Safety Administration (NHTSA) is considering promulgating a rule to increase rearview visibility in vehicles—a rule intended to reduce “backover crashes,” which occur when a vehicle moving in reverse strikes a pedestrian or a cyclist, and which kill hundreds and injure thousands of people a year. In performing a cost–benefit analysis of the proposed rule, NHTSA has refused to monetize many of the most emotional impacts of the rule, such as the large number of backover crash victims who are small children. Without including these impacts, the monetized costs of the rule far exceed the monetized benefits.

This Article argues that treating these effects of the rearview rule as non-monetizable assumes that people are not willing to pay any money to secure those effects, and is likely to lead to significant undervaluation of the amount of money people are actually willing to pay for a regulation. Regulators are often averse to attempting to monetize the nonmonetary

* Assistant Professor and Richard W. and Marie L. Corman Scholar, University of Illinois College of Law. Thanks to Amitai Aviram, Cary Coglianese, Dan Cole, Laurie Freeman, Paul Heald, Eric Johnson, Michael Livermore, Melissa Luttrell, Jud Mathews, F.B. Moretti, J.B. Ruhl, Paul Stancil, Stephanie Stern, Tom Ulen, Melissa Wasserman, and Verity Winship for very helpful comments and conversations.

effects of regulations, particularly when those effects are deeply emotional, as they are whenever regulation touches upon the deaths of small children. Insofar as this hesitation to monetize stems from concern about the incommensurability of money and other goods, it should cease immediately. Incommensurability does not necessarily preclude partial valuation, or the partial expression of a good's value in terms of another good. Even something as horrific and emotionally laden as the death of a child can therefore be partially valued in monetary terms—so long as people are willing to pay money to prevent the event from occurring. Emotional goods like these are difficult to think about, and even more difficult to monetize, but refusing to monetize them at all is not a reasonable solution.

I. NON-QUANTIFIABLE BENEFITS AND NHTSA'S PENDING REARVIEW RULE

What role should non-quantifiable benefits play in regulatory cost-benefit analysis? President Barack Obama's recent order on Regulatory Planning and Review, Executive Order 13,563, directs agencies to "propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify)."¹ In a separate provision, it also explicitly permits agencies to "consider (and discuss qualitatively) values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts."²

Regulatory practice therefore reserves space for consideration of non-quantifiable effects of regulation, including those which agencies believe cannot be monetized.³ But how are those non-quantifiable effects to be incorporated into a cost-benefit analysis, if benefits must still justify costs?

1. Exec. Order No. 13,563, 76 Fed. Reg. 3821, 3821 (Jan. 21, 2011); *see also* Exec. Order No. 12,866, 3 C.F.R. 638, 639 (1994).

2. *See* Exec. Order No. 13,563, 76 Fed. Reg. at 3821.

3. Circular A-4, which provides the cornerstone guidance for agencies performing regulatory impact analyses, splits the effects of regulation into three buckets: those that can be monetized, those that can be quantified but not monetized, and those that cannot be quantified. *See* OFFICE OF MGMT. & BUDGET, CIRCULAR A-4 (2003), *available at* http://www.whitehouse.gov/omb/circulars_a004_a-4/ [hereinafter Circular A-4]; OFFICE OF MGMT. & BUDGET, OFFICE OF INFO. & REGULATORY AFFAIRS, REGULATORY IMPACT ANALYSIS: A PRIMER 7 (2011), *available at* http://www.whitehouse.gov/sites/default/files/omb/info/reg/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf. Thus, current guidance assumes that all monetizable effects are quantifiable, and that if something is non-quantifiable, it is also non-monetizable. For the purposes of this Article, I adopt this typology, although it is interesting to ponder whether there might be anything important in the missing cell (i.e., "monetizable but not quantifiable").

Or more concretely: If an agency is considering a rule for which the monetized costs exceed the monetized benefits, can the consideration of non-quantifiable benefits tip the balance?

NHTSA is facing exactly this question as it considers a rule to expand rearview visibility in cars,⁴ and the Office of Information and Regulatory Affairs as it reviews that rule.⁵

The rule was proposed to reduce backover crashes, which occur when a reversing vehicle strikes someone outside the vehicle.⁶ NHTSA estimates that there are 292 fatalities and 18,000 injuries from backover crashes every year.⁷ Children under five represent 44% of the fatalities; gruesomely, many of these fatalities “involve parents (or caregivers) accidentally backing over children.”⁸ In 2007, Congress responded to one of these tragic incidents, in which a father accidentally killed his toddler by backing over him with the family SUV,⁹ by passing the Cameron Gulbransen Kids

4. See Federal Motor Vehicle Safety Standard, Rearview Mirrors; Federal Motor Vehicle Safety Standard, Low-Speed Vehicles Phase-In Reporting Requirements, 75 Fed. Reg. 76,186, 76187 (Dec. 7, 2010) (to be codified at 49 C.F.R. pts. 571, 585) [hereinafter Federal Motor Vehicle Safety Standard]; see also Preliminary Regulatory Impact Analysis, Backover Crash Avoidance Technologies, NPRM FMVSS No. 111 (Nov. 2010) [hereinafter Regulatory Impact Analysis].

5. The Office of Information and Regulatory Affairs (OIRA) is responsible for reviewing draft regulations and for determining whether those regulations comply with the President’s guidelines for policy analyses, particularly as set forth in Executive Orders 12,866 and 13,563. See OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, MEMORANDUM FOR THE HEADS AND ACTING HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES (2009); Exec. Order No. 12,866, 3 C.F.R. 642–43, 645 (1993); Exec. Order No. 13,563, 76 Fed. Reg. at 3822. OIRA in its current role is a relatively new office; it was created by Congress in 1980 by the Paperwork Reduction Act, but its role changed significantly in 1993 with the issuance of Executive Order 12,866, which gave OIRA the responsibility to review draft regulations. President George W. Bush left Executive Order 12,866 in place, but amended it significantly with additional orders. President Obama revoked the Bush amendments in Executive Order 13,497. See Exec. Order No. 13,497, 3 C.F.R. 218 (2010). President Obama subsequently issued Executive Order 13,563 supplementing the guidance in Executive Order 12,866. See Exec. Order No. 13,563, 76 Fed. Reg. 3821.

6. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,187 (defining backover crashes as incidents “in which a non-occupant of a vehicle (most commonly, a pedestrian, but it could also be a cyclist) is struck by a vehicle moving in reverse”).

7. *Id.* at 76,187. Most of these (228 fatalities and 17,000 injuries) are attributable to backover incidents involving light vehicles (which include passenger cars and light trucks weighing 10,000 pounds or less). *Id.*

8. *Id.*

9. See Tatiana Morales, *Call to Eliminate SUV Blind Spots*, CBS NEWS (Dec. 5, 2007, 3:15 PM), http://www.cbsnews.com/2100-500202_162-633815.html (explaining how Congress reacted to the accidental backover killing of two-year-old Cameron Gulbransen).

Transportation Safety Act of 2007.¹⁰ Among other requirements, the law directs NHTSA to initiate rulemaking to “expand the required field of view to enable the driver of a motor vehicle to detect areas behind the motor vehicle to reduce death and injury resulting from backing incidents.”¹¹

NHTSA spent several years researching various strategies for reducing backover crashes, including the possibility of requiring additional mirrors, sensors, and cameras.¹² After some delay, the agency concluded that the most effective method for reducing backovers would be to require all new cars to have rearview capabilities prior to sale.¹³ Currently, rearview cameras—the most expensive of the alternatives considered by

10. Cameron Gulbransen Kids Transportation Safety Act of 2007, Pub. L. No. 110-189, 122 Stat. 639 (codified as amended at 49 U.S.C. § 30111 (Supp. IV 2011)).

11. *See id.* § 2(b). More specifically, the statute directs the Secretary of Transportation to initiate a rulemaking “to expand the required field of view to enable the driver of a motor vehicle to detect areas behind the motor vehicle to reduce death and injury resulting from backing incidents, particularly incidents involving small children and disabled persons.” *Id.* The Act explicitly reserves to the Secretary the authority to meet the standard through a variety of means: the “standard may be met by the provision of additional mirrors, sensors, cameras, or other technology to expand the driver’s field of view.” *Id.* The Act also gives the Secretary a deadline to “prescribe final standards pursuant to this subsection not later than 36 months after the enactment of this Act,” which was February 28, 2008. *Id.* If the Secretary does not meet the (now-passed) deadline, the Secretary is required to “establish new deadlines” and to “notify the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate of the new deadlines and describe the reasons the deadlines specified under this Act could not be met.” *Id.* at § 4(1), (2). One interesting question—not (yet?) addressed by the National Highway Traffic Safety Administration (NHTSA)—is whether the Agency could claim that the Act releases it from the general executive requirement to perform cost-benefit analyses. NHTSA was probably wise to assume that this argument would fail for two reasons. Courts now appear to apply a strong default assumption that Congress intends to permit cost-benefit analyses, except where they are explicitly barred. *See Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 226 (2009) (holding that the Environmental Protection Agency (EPA) permissibly relied on cost-benefit analysis in setting national performance standards for water intake structures, where the relevant provision of the Clean Water Act is silent as to cost-benefit analysis); *see also infra* note 17 and accompanying text. Additionally, the standard required by the Act could be met through the inclusion of a variety of means, some of which might well pass a cost-benefit analysis. *See Cameron Gulbransen Kids Transportation Safety Act of 2007*, § 2(b) (permitting the standard to be met by prescribing “different requirements for different types of motor vehicles,” among other things); *cf.* Regulatory Impact Analysis, *supra* note 4, at V-14 (finding that most of the estimated life-savings are for non-passenger cars).

12. *See generally* Federal Motor Vehicle Safety Standard, *supra* note 4. The Act explicitly delegates the choice of means to meet the standard to the Secretary of Transportation. *See Cameron Gulbransen Kids Transportation Safety Act of 2007*, § 2(b) (“Such standard may be met by the provision of additional mirrors, sensors, cameras, or other technology to expand the driver’s field of view.”).

13. *See* Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,239.

NHTSA¹⁴—provide the only technology capable of meeting this performance standard.¹⁵

As part of its regulatory impact analysis, NHTSA performed a cost–benefit analysis of the rearview rule.¹⁶ To move forward with the rearview rule, NHTSA had to make “a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify).”¹⁷

Based on the record that NHTSA presented, do the benefits of the rearview rule justify its costs? Not if the costs must be justified by monetized benefits. In fact, on the basis of its calculations, NHTSA has conceded that the regulation is not cost-effective.¹⁸ Yet, it contends that the benefits of the regulation nevertheless justify the costs because “the quantitative [i.e., monetized] analysis does not offer a complete accounting.”¹⁹

14. See Regulatory Impact Analysis, *supra* note 4, at ii. Rearview camera systems “are estimated to cost consumers between \$159 and \$203 per vehicle.” *Id.* In contrast, rear object sensor systems would cost \$52–\$92, and “[i]nterior look-down mirrors” would cost about \$40 per vehicle. *Id.*

15. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,239.

16. See *id.* at 76,237 (summarizing costs and benefits); Regulatory Impact Analysis, *supra* note 4, at iv.

17. See Exec. Order No. 13,563 § 1(b), 76 Fed. Reg. 3821, 3821 (Jan. 18, 2011) (requiring agencies considering significant rules to perform a cost–benefit analysis whenever it is permitted by law for them to do so). When considering significant rules, agencies are required to perform a cost–benefit analysis whenever it is permitted by law for them to do so. Exec. Order 12,866 § 1(b) (requiring various “[p]rinciples of [r]egulation,” including implementation of cost–benefit analysis, “to the extent permitted by law and where applicable”); see also Unfunded Mandates Reform Act of 1995, Pub. L. No. 104-4, 109 Stat. 48 (codified as amended in scattered sections of 2 U.S.C.) (requiring agencies to prepare written assessments of costs, benefits, and other effects of proposed or final rules that are expected to result in more than \$100 million in annual costs). The Kid’s Transportation Safety Act is silent as to cost considerations. See generally 49 U.S.C. § 30111 (2006). Recent Supreme Court precedent suggests that this silence should be interpreted as permitting the implementing agency to perform cost–benefit analysis. See *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 226, 240–41 (2009) (holding that “the EPA permissibly relied on cost–benefit analysis in setting the national performance standards” for water intake structures, where the relevant provision of the Clean Water Act directs the EPA Administrator to set standards using the “best technology available” to “minimize the adverse environmental impact,” and is silent as to cost–benefit analysis). For a nuanced treatment of *Entergy* and a general discussion of whether statutory silence is (or should be) treated as permitting cost–benefit analysis, see Jonathan Cannon, *The Sounds of Silence: Cost–Benefit Canons in Entergy Corp. v. Riverkeeper, Inc.*, 34 HARV. ENVTL. L. REV. 425 (2010).

18. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,237 (“According to our present model, none of the systems are cost effective based on our comprehensive cost estimate of the value of a statistical life of \$6.1 million.”).

19. *Id.* at 76,238.

To understand NHTSA's argument, one must examine how it calculated the costs and the benefits of the regulation. To monetize the benefits of the rule, NHTSA relied upon a typical technique in regulatory cost-benefit analysis, which is to monetize benefits by looking at studies that evaluate how much money people are generally willing to pay for those benefits.²⁰ Consider NHTSA's calculation that the rule can be expected to save between 95 and 112 lives annually.²¹ To monetize this impact, NHTSA relied on studies that elicit people's willingness to pay to reduce small mortality risks.²²

NHTSA estimates that the new regulation will cost between \$1.9 and \$2.7 billion annually, primarily as a result of the increased cost of vehicles having rearview cameras installed prior to sale.²³ This level of cost makes the rule one of the most expensive currently pending.²⁴

On the basis of this information, NHTSA determined that people's willingness to pay for protection against mortality risks justifies an

20. See Circular A-4, *supra* note 3, at 13 (treating "willingness to pay" as the keystone method for monetization). For a discussion of the methods agencies use to monetize mortality risks, see Arden Rowell, *The Cost of Time: Haphazard Discounting and the Undervaluation of Regulatory Benefits*, 85 NOTRE DAME L. REV. 1505, 1517-24 (2010).

21. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,240 (noting that the rule would also reduce injuries by 7,072 to 8,374 per year).

22. Cf. *id.* at 76,238, 76,238 n.96 (utilizing the Department of Transportation's (DOT's) "value of a statistical life" (VSL) of \$5.8 million, which is meant to represent the amount of money that people are willing to pay to avert small mortality risks that would lead us to expect, on average, a single death).

23. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,189; Regulatory Impact Analysis, *supra* note 4, at ii-iii (noting that, in addition to the cost of installing the cameras, NHTSA "also estimated the net property damage effects to consumers from using a camera or sensor system to avoid backing into fixed objects, along with the additional costs when a vehicle is struck in the rear and the camera or sensor is destroyed").

24. See Letter from Barack Obama, President of the United States, to John Boehner, Speaker of the House of Representatives (Aug. 30, 2011) *available at* http://www.politico.com/static/PPM169_110830_boehner.html (listing only seven then-pending regulations with an expected cost exceeding \$1 billion). According to the President's letter, only three rules, all at the EPA, were expected to exceed the cost of NHTSA's rearview rule: the extremely costly reconsideration of the 2008 Ozone National Ambient Air Quality Standards (\$19-\$90 billion expected cost), and two rules setting National Emission Standards for Hazardous Air Pollutants—one for Coal-and-Oil-Fired Electric Utility Steam Generating Units (\$10 billion expected cost), and the other for Major Source Industrial, Commercial, and Institutional Boilers and Process Heaters (\$3 billion expected cost). *Id.* By way of comparison, the standard for boilers and process heaters is expected to produce at least \$20 billion of monetized benefits. See 76 Fed. Reg. at 15,608, 15,611 (Mar. 21, 2011) (codified at 40 C.F.R. pt. 63) (identifying the total monetized benefits of the final rule as \$22-\$54 billion with a 3% discount rate, and \$20-\$49 billion with a 7% discount rate and identifying the expected costs of the final rule as \$1.5 billion).

expenditure of \$6.1 million per life saved.²⁵ Under NHTSA's calculations, and taking into account the monetized value of other benefits, this would mean that the regulation would cost either \$11.8 million or \$19.7 million per life saved.²⁶

25. Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238. Although the bulk of the \$6.1 million is made up by the \$5.8 million monetization of mortality risk, NHTSA also included additional costs, including estimates of “medical care, emergency services, legal costs, insurance administrative costs, workplace costs, property damage and the taxed portion of lost market productivity (the untaxed portion is assumed to be inherently included in the VSL).” *Id.* at 76,238 n.96. Even the \$6.1 million number probably under-represents people’s willingness to pay to reduce mortality risks. For example, NHTSA also does not account for the effect of income growth over time in its calculation of VSLs; this will tend to reduce the valuations because the effects of the regulation are spread across many years. See Cass R. Sunstein & Arden Rowell, *On Discounting Regulatory Benefits: Risk, Money, and Intergenerational Equity*, 74 U. CHI. L. REV. 171, 186–87 (2007) (arguing that one way in which agencies’ VSLs can underestimate people’s willingness to pay is where they fail to account for the effect of income growth over time); Melissa Luttrell, *The Case for Differential Discounting: How a Small Rate Change Could Help Agencies Save More Lives and Make More Sense*, 3 WM. & MARY POL’Y REV. 80, 126–27 (2011) (arguing that agencies should respond to this argument by adjusting their VSLs). See generally Ben Trachtenberg, *Tinkering with the Machinery of Life*, 59 UCLA L. REV. DISC. 128, 129 (2012) (noting that some agencies have now adopted this framework); Memorandum from Polly Trottenberg, Assistant Sec’y for Transp. Policy, & Robert S. Rivkin, General Counsel, U.S. Dep’t of Transp., to Secretarial Officers & Model Administrators, Treatment of the Economic Value of a Statistical Life in Departmental Analysis (July 29, 2011), available at http://regs.DOT.gov/docs/Value_of_Life_July_29_2011.pdf (noting “adopt[ion of] three changes in methodology in addition to the current interim VSL adjustment” based on the finding that “changes in prices and incomes over the last two years imply an increased VSL of \$6.2 million for analyses prepared in 2011”). DOT directs analysts to “augment the base-year VSL by 0.877 percent per year to estimate VSL of any future year in base-year dollars before discounting to present value.” *Id.* at 2. This latter guidance only came out after NHTSA performed its analysis in the rearview camera rule, however, and that analysis did not include adjustments for future income growth. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238 n.96 (noting that the analysis relies on the 2007 Departmental value of \$5.8 million—a number that was updated to \$6.2 million in the 2011 Memorandum on the Treatment of the Economic Value of a Statistical Life—and listing a number of adjustment factors, none of which include future income growth). Other potential under-valuations stem from NHTSA not adjusting its VSLs for time indeterminacy in the initial calculations. For an example, see Rowell, *supra* note 20, at 1534 (suggesting ways in which regulators can improve time-determinacy so that they do not inadvertently double-discount mortality valuations). See also Eric A. Posner & Cass R. Sunstein, *Dollars and Death*, 72 U. CHI. L. REV. 537, 539–40 (2005) (noting that valuation may be further diminished by not counting third-party valuations).

26. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238. The difference in the two estimates is based upon the discount rate that NHTSA chooses to apply. Since money has a time value—it can be invested and made to grow—agencies have to apply discount rates to future benefits to make them comparable to immediate costs. Sunstein & Rowell, *supra* note 25, at 173 (arguing that discounting regulatory benefits is theoretically

In addition to these monetized costs and benefits, NHTSA also identifies four kinds of benefits to the rule that it says “cannot be monetized,” though “they could be significant.”²⁷ These are: the preservation of additional life-years when children, as opposed to adults, are protected from mortality risks;²⁸ the value that people may attach to children’s lives, over and above the value they attach to preserving adult lives;²⁹ reduction of “a qualitatively distinct risk, which is that of directly causing the death or injury of one’s own child;”³⁰ and “equity.”³¹

As we have seen, Executive Order 13,563 explicitly permits agencies to “consider” non-quantifiable effects in their analyses of regulatory impacts.³² In fact, “equity” is listed as the kind of quality that may be “difficult or impossible to quantify.”³³ But this provision is structurally separate from the requirement that the benefits of a regulation justify its costs³⁴—the

justified because the calculation of those benefits is based on people’s willingness to pay for those benefits). The discount rate is typically expressed in percentage terms, and indicates the percent of a dollar’s value that is lost for each year of delay. Discounting policy has enormous impacts on regulatory decision making. See Rowell, *supra* note 20, at 1509 (describing the impact of discounting, and warning that agencies’ current discounting policies may be leading to “double” discounting and significant undervaluation of regulatory benefits). For this regulation, NHTSA identifies \$11.8 million as the cost per life saved at a 3% discount rate, and \$19.7 million per life saved at a 7% discount rate. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,240. The significant difference between the two arises from the fact that the safety benefits the camera offers are likely to be spread out over a number of years.

27. *Id.* at 76,238. Note that I have chosen to focus my discussion of NHTSA’s analysis on its Federal Motor Vehicle Safety Standard. NHTSA also presents an analysis of the benefits and costs of the rule in its Regulatory Impact Analysis. See *supra* note 4. That analysis differs slightly from the explanation in the Federal Register; for example, under “non-quantified” benefits, it identifies “a certain convenience/comfort factor in being able to see directly behind the vehicle while backing up,” the fact that installing a screen on the dash may be useful for other reasons, and “[t]he emotional well-being of the extended family members, friends, and other associates of the injured,” that arguably “the emotional distress of the driver should be counted, especially in cases where the driver injures a child, and even more so when the child is their own.” *Id.* at V-15–V-16.

28. Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238 (noting that “well over 40 percent of the victims of backover crashes are very young children (under the age of five), with nearly their entire life ahead of them”).

29. *Id.* at 76,239 (citing James K. Hammitt & Kevin Haninger, *Valuing Fatal Risks to Children and Adults: Effects of Disease, Latency, and Risk Aversion*, 40 J. RISK & UNCERTAINTY 57, 57–83 (2010)).

30. *Id.* at 76,238.

31. *Id.* NHTSA does not explain what these equity concerns may be. See *infra* notes 61–63 and accompanying discussion.

32. See Exec. Order No. 13,563 § 1(c), 76 Fed. Reg. 3821, 3821 (Jan. 18, 2011).. See also Circular A-4, *supra* note 3, which also addresses these effects.

33. Exec. Order No. 13563 § 1(c).

34. *Id.* § 1(a), (c).

puzzle with which this Article began.

Let us assume, for the moment, that NHTSA is right to treat these latter benefits of the rule as non-monetizable. What role should they play in the analysis—required by Executive Order 13,563—of whether benefits justify costs? The answer to this question will determine whether the rule can continue because the monetized cost-benefit analysis alone (at least as NHTSA has calculated it) cannot justify the expenditure the rule requires. Thus, the question of whether non-monetizable benefits should affect the result of a cost-benefit analysis appears to be determinative of whether NHTSA's rearview rule should be promulgated or not.

What was NHTSA's conclusion in the face of this dilemma? The agency concluded that non-monetizable benefits *can* justify the rule, even where the monetized costs exceed monetized benefits: "Taking all of the foregoing points alongside the quantifiable figures and the safety issue at hand, the agency tentatively concludes that the benefits do justify the costs."³⁵

Was NHTSA's conclusion—that non-monetizable benefits can justify monetizable costs—the right one? I think we can gain traction on this question by taking seriously a contention that has arisen from literature on commensurability: that not all things can be completely expressed in monetary terms. This assumption is often taken as a critique of practices that require monetization, and I take it to provide the strongest basis for concluding that some regulatory impacts are impossible to monetize.³⁶

With that assumption in hand, this Article sketches two points that I hope help further analysis of the question of how non-quantifiable (and particularly non-monetizable) regulatory impacts should affect regulatory analyses like the one NHTSA must perform for the rearview rule.

The first of these points is that regulators must be careful to distinguish between commensurability and monetizability. People are often willing to pay money to secure the effects of regulation, even when those effects are incommensurable with money. When regulators treat those effects as non-monetizable, they undervalue them in comparison to the amount people would actually pay to secure them. These partial valuations may not represent the holistic value of the good being monetized, but even partial guides can usefully inform policy questions about resource allocation.

The second point of the Article builds upon the first. It argues that non-monetizable benefits have no role to play within monetized cost-benefit analyses. The reason for this is not because non-monetizable benefits are worthless; it is because monetary cost-benefit analyses deal with money,

35. Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238.

36. See Exec. Order No. 13,563 § 1(c), 76 Fed. Reg. at 3821 (referring to the possibility of qualities that are "impossible" to quantify, as opposed to merely "difficult").

and non-monetizable benefits, by definition, have no value that can be expressed in dollars. Any importance that non-monetizable benefits may have to regulatory decision-making must therefore accrue outside the ledgers of monetized cost-benefit analyses.

II. DISTINGUISHING COMMENSURABILITY AND MONETIZABILITY

In categorizing regulatory effects as monetizable or non-monetizable, we should be careful not to confuse commensurability with monetizability.³⁷ Commensurability is a problem of expression: good A is incommensurable with money if A cannot be completely expressed in terms of money.³⁸ But monetizability—at least as currently practiced—does not require commensurability. In monetizing regulatory effects, regulators ask how much money people are willing to exchange for those effects—or how much they value the regulatory effects in terms of money.³⁹ For something to be monetizable for the purposes of current regulatory practice, it is unnecessary for the complete value of a good to be expressed in monetary terms. It is only necessary that people be willing to pay some amount of money for the good.

People value different things in different ways.⁴⁰ Often, asking people for their subjective valuation of a good in terms of money is likely to give an incomplete picture of everything anyone might value about that good.⁴¹

37. In fact, we should be careful to distinguish (in)commensurability and questions of valuation in general. See generally Cass R. Sunstein, *Incommensurability and Valuation in Law*, 92 MICH. L. REV. 779 (1994) (arguing that questions of commensurability and valuation are segregable).

38. For an application and discussion of this approach to commensurability, see Margaret Jane Radin, *Compensation and Commensurability*, 43 DUKE L. J. 56 (1993) (addressing commensurability as an “equation”). Incommensurability is also commonly described as a lack of a common metric—a definition that assumes a lack of equivalence. See, e.g., Sunstein, *supra* note 37, at 796, 799–801 (presenting a “working definition” of incommensurability, “designed especially for the legal context,” that “[i]ncommensurability occurs when the relevant goods cannot be aligned along a single metric without doing violence to our considered judgments about how these goods are best characterized,” and comparing alternative formulations of incommensurability); see also Matthew Adler, *Incommensurability and Cost-Benefit Analysis*, 146 U. PA. L. REV. 1371, 1383 (1998) (“‘Incommensurability,’ in one sense, means the absence of a scale or metric” and providing a defense of cost-benefit analysis in light of incommensurability). The literature on (in)commensurability is extraordinarily rich; for a useful essay summarizing diverse views, see Nien-he Hsieh, *Incommensurable Values*, in STANFORD ENCYCLOPEDIA OF PHILOSOPHY, Edward N. Zalta, ed., (2007), available at <http://plato.stanford.edu/entries/value-incommensurable/>.

39. For a discussion of the foundation of regulatory practices of monetization as being built upon willingness to pay, see Sunstein & Rowell, *supra* note 25, at 173. See also Circular A-4, *supra* note 3.

40. See Sunstein, *supra* note 37, at 782–794 (discussing different types of valuation).

41. See *id.* at 785–790.

This means that monetization can provide only a partial expression of the total value of goods that are incommensurable with money—what I will call a partial valuation. This is a problem for the enterprise of trying to completely express various goods in terms of money.⁴² But it is not a problem insofar as we are engaged in the very different enterprise of trying to determine how much money to exchange for various goods. For that purpose, knowing how much money people are willing to exchange for those goods is highly informative.

This distinction between commensurability (which is a question, at least as I have framed it, of completeness of expression) and monetizability (which is a question of people's willingness to spend money) matters to regulatory practice because it is important that regulators not mistake incommensurability with money for non-monetizability. Many of the effects of a regulation may be incommensurable with money, but when those effects are important—as, for example, with the preservation of the life of a child—people are often willing to pay money to secure them.⁴³ It is a mistake to treat these goods as non-monetizable—and it is a mistake that can lead to significant undervaluations (in monetary terms) of the amount people are willing to pay for a regulation with those effects.

To see more concretely how this distinction might work, consider an example of something that seems intuitively incommensurable with money: the value of listening to birdsong outside one's bedroom window. It would be a sad and flat world where we believed that waking up to birdsong was in all ways identical to any amount of money. Nevertheless, a person who values birdsong might be willing to pay some amount of money—say \$5—

42. See Frank Ackerman & Lisa Heinzerling, *Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection*, 150 U. PA. L. REV. 1553, 1553–56 (2002) (assuming that regulatory cost-benefit analysis is engaged in the project of equating diverse goods, including lives, with money, and arguing that this approach is doomed because of incommensurability between money and other goods); see also Radin, *supra* note 38 (arguing that bodily integrity cannot be completely expressed in terms of money).

43. Past attempts to elicit people's willingness to pay to protect children have led to significant anger where it has been taken as equating dollars with children's lives. See, e.g., Ackerman & Heinzerling, *supra* note 42, at 1555–56 (referring to attempts to monetize improvements in child health and reductions in child mortality as “absurd”) (discussing Paul S. Carlin & Robert Sandy, *Estimating the Implicit Value of a Young Child's Life*, 58 S. ECON. J. 186 (1991), among others). The point of this Article is that monetization based on willingness to pay does not require equation of money with the good being valued. It simply requires willingness to pay money for the good. In this sense, I would tend to side with Joseph Raz over James Griffin on the question of whether the act of exchange should be taken as a sign that money and the regulatory effect are “actually” commensurable. See Radin, *supra* note 38, at 65–68 (discussing James Griffin and Joseph Raz's approaches to the question of whether we can infer commensurability between choices “to the extent the actor actually does choose one value over the other”).

to secure the ability to listen to it.

Note that the fact that money and birdsong might be exchanged for one another (as through environmental policies that support healthy bird populations) does not mean that the goods are necessarily *equal* to one another. To see this, suppose that the value of “waking up to birdsong” is expressed as “ w .” Suppose further that the willingness to pay for w is \$5. If the two goods are substantively different from one another, there is no reason to believe that $(w - \$5) = 0$. Rather, because the two goods are not the same, there is likely to be some remainder—call it w_r —that represents just that portion of the value of birdsong that was not expressed in the monetized valuation of \$5. We might reasonably say that w_r is non-monetizable, or non-quantifiable, insofar as it is the portion of “waking up to birdsong” that is valued, but not expressible in terms of this person’s willingness to pay in dollars. So a portion of the value of waking up to birdsong is monetizable, because someone is willing to pay money for it. But some portion of the value of waking up to birdsong is also *not* monetizable. It would be a mistake to confuse either of these parts for the whole, either by concluding that waking up to birdsong is entirely commensurable with money simply because the two were exchanged (thereby ignoring the existence of w_r); or that waking up to birdsong (w) is completely non-monetizable because some portion of it (w_r) is non-monetizable.

Rather, we should think of the \$5 as a distinctive kind of valuation: a partial valuation. This partial valuation describes how “waking up to birdsong” can be expressed in monetary terms. The fact that this is only a partial valuation means that it tells us only a portion of the total value of birdsong. But that does not make the monetization worthless. Insofar as policy addresses questions of resource allocation, which can be informed by willingness to pay, it can still importantly inform decision making.⁴⁴ If this argument is right, it means that partial valuations can be used to express the monetary value of goods—like birdsong—that are incommensurable with money.⁴⁵

44. For another example of how partial valuations can be helpful to policy, see Rowell, *supra* note 20, at 1510–12.

45. It is not to say that all goods can be partially valued in terms of money. It may be that there are things that are valuable but for which people are willing to pay no money whatsoever. One likely set of candidates for this category is goods for which there is a social stigma attached to monetization or commodification, such as where the good is defined by reference to its lack of susceptibility to exchange. For discussion of the impact of commodification, see MARGARET JANE RADIN, *CONTESTED COMMODITIES* 115–22 (1996). These might include goods like gifts—which lose their gift-like status if they are exchanged (at least directly) for money. And it might also include goods like human dignity, *see* Exec. Order 13,563 § 1(c), 76 Fed. Reg. 3821, 3821 (Jan. 18, 2011), which could arguably lose its

How can this help regulators faced with managing diverse regulatory effects? By clarifying that, even where an effect of a regulation seems importantly inexpressible in monetary terms, it may still be at least partially valuable in monetary terms. This account supports the existing use of monetization for valuing things—like mortality risks—that seem importantly incommensurable with money. To see how this argument can affect analyses, let us delve further into NHTSA’s treatment of the benefits of the rearview rule, focusing particularly on the benefits it claims “cannot be monetized.”

Consider first NHTSA’s claim that those affected by the rearview camera regulation are often children, who have many expected life-years ahead of them.⁴⁶ NHTSA does not explain why it thinks this value is non-monetizable.⁴⁷ From a commensurability perspective, however, it seems understandable that NHTSA would worry that the life-years of children are meaningfully different than money, such that they cannot be completely expressed in dollar terms. But while that intuition might suggest that life-years and dollars are incommensurable, as we have just seen, it does not tell us that life-years cannot be monetized. And indeed, there are large and robust methodologies that have grown up for just this purpose.⁴⁸ The Environmental Protection Agency (EPA) even experimented with using one of them, called the “Value of Statistical Life-years” (VSLY),⁴⁹ in lieu of the more familiar “Value of a Statistical Life” (VSL), which attaches the same monetized value per life saved regardless of how many life-years are expected.⁵⁰ There was enormous political fallout: the move was bitterly resisted by the American Association of Retired Persons, among others, and was popularly dubbed the “senior death discount,” on the grounds that it would tend to encourage spending less money to protect the elderly.⁵¹ In contrast, critics of the current approach—using VSL instead of VSLY—

value if it is exchanged for money.

46. Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238.

47. *Cf.* Circular A-4, *supra* note 3 (directing agencies to explain any decisions to treat benefits as non-monetizable).

48. For a discussion of two methodologies used by agencies, see Lisa A. Robinson, *How US Government Agencies Value Mortality Risk Reductions*, 1 REV. ENVTL. ECON. & POL’Y. 283 (2007), which describes agencies’ use of the Value of a Statistical Life Year (VSLY) approach and the Quality-Adjusted Life Year approach.

49. *See id.* at 284–85

50. *Id.* at 285.

51. *See* Robert Hahn & Scott Wallsten, *Whose Life is Worth More? (And Why is it Horrible to Ask?)*, WASH. POST, June 1, 2003, at B3; Katharine Q. Seelye & John Tierney, *E.P.A. Drops Age-Based Cost Studies*, N.Y. TIMES, May 8, 2003, <http://www.nytimes.com/2003/05/08/us/epa-drops-age-based-cost-studies.html?pagewanted=all&src=pm> (discussing the political tensions surrounding EPA’s policy of conducting age-adjusted analysis in cost-benefit analysis).

might just as easily dub the VSL a “child death discount.”⁵²

Must regulators choose between senior death discounts and child death discounts—between valuing lives equally and recognizing the value of life-years? Although agencies considering mortality valuation techniques have traditionally assumed that VSL and VSLY are substitutes for one another—perhaps in part because VSLY has traditionally been derived from VSL⁵³—there is no logical reason that the two approaches must be mutually exclusive.⁵⁴ It could be that people are willing to pay some amount to prevent any death, and that they are also willing to pay a premium for life extension. If that is the case, then it is appropriate for regulators to spend up to the VSL to prevent any death, and to pay a supplemental amount of money per life year extended—per VSLY.

NHTSA does not engage with these questions. It merely assumes that extending children’s lives is non-monetizable. If the agency is right to claim that mere VSL does not capture important aspects of the loss of life-years borne with loss of a child, it seems very unlikely that it is also right to treat this value as if it “cannot be monetized”—as if people are willing to spend no money at all to extend children’s lives. NHTSA would do better to attempt a partial monetization to express the amount people are willing to pay in money per life-year extended.

NHTSA also refuses to monetize a related effect of the regulation: the distinctive harm of the death of a child.⁵⁵ NHTSA again assumes that this value is entirely non-monetizable. Again, however, this effect is only unable to be monetized if we assume that the only way to monetize is if money is used as a complete measure of a good. But for policy purposes, where we are trying to determine how much money to pay for a regulatory effect, the appropriate question is: are people willing to pay any money for

52. An interesting question here, given that many of the non-child victims of backover crashes are elderly, is whether these valuations would tend to “even out” if VSL is used as the only method for calculating the loss. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,239 n.100 (noting that 33% of the fatalities are persons seventy years or older). Without a life-years analysis, however, it is impossible to know if this would be the case.

53. VSLY is typically “derived by dividing the VSL by the discounted expected number of life-years remaining.” Robinson, *supra* note 48, at 284 (providing a useful and readable summary of various valuation practices).

54. Academic commentators have generally split about whether VSL or VSLY is preferable. Compare, e.g., Cass R. Sunstein, *Lives, Life-Years, and Willingness to Pay*, 104 COLUM. L. REV. 205, 206 (2004) (“[I]t is sensible to think that government should consider not simply the number of lives at stake, or the VSL; it should concern itself also or instead with the number of life-years at stake, or the value of statistical life-years (VSLY).”) with RICHARD L. REVEZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH 146 (2008) (advocating for VSL over VSLY).

55. Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238–39.

this effect, to either prevent or secure it? And in this case, the answer to the question appears to be that people are indeed willing to pay significant amounts of money to prevent the death of a child, over and above what they are willing to pay to reduce mortality risks to other adults or to themselves.⁵⁶ NHTSA itself cites to an article by James Hammitt and Kevin Haninger that cautiously finds that people are willing to pay \$12–\$15 million for children, even where they will only pay \$6–\$10 million for adults;⁵⁷ yet the agency chooses not to incorporate this information into its analysis.⁵⁸

NHTSA also claims that there is a qualitative difference between a general death and death resulting from a parent accidentally killing her own child.⁵⁹ NHTSA describes this benefit as non-monetizable as well.⁶⁰ This effect also seems deeply incommensurable with money: there is no way to conceive of killing one's child as equivalent to any amount of money. But, as we have seen, the incommensurability of these two things should not lead NHTSA to the conclusion that no portion of this effect can be monetized. So long as people are willing to pay some amount of money to avert this type of tragedy, the effect can be at least partially valued in monetary terms.

56. See James K. Hammitt & Kevin Haninger, *Valuing Fatal Risks to Children and Adults: Effects of Disease, Latency, and Risk Aversion*, 40 J. RISK & UNCERTAINTY 57, 72 (2010) (performing a stated preference study comparing people's willingness to pay to preserve the lives of adults and their willingness to pay to preserve children's lives).

57. See *id.* at 57, 72; Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,239 n.99 (citing Hammitt & Haninger, *supra* note 56). Note that it is not clear that Hammitt and Haninger's study can effectively disaggregate any value attached to the status of childhood from extensions of life-years—the first two benefits NHTSA identifies as non-monetizable. A thorough monetization would address both of these, but might determine that the figures identified by Hammitt and Haninger should be understood to incorporate both the premium for life-year extensions and any special amount people are willing to pay for protecting children as a group.

58. To the extent that NHTSA explains this decision, it does so by emphasizing that this literature is still in its infancy. See *id.* It is a fair and difficult point that it can be hard for agencies to know when to incorporate early empirical findings into their analyses. Generally, agencies are required to use “the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible.” Exec. Order No. 13,563 § 1(c), 76 Fed. Reg. 3821, 3821 (Jan. 21, 2011). I think this exhortation should be understood against the relevant baseline, which here appears to be the highly implausible assumption that people are willing to pay no supplemental amount of money to prevent the death of a child. On this view, it seems highly implausible that as between that assumption and the use of a literature in its infancy that the “best available technique” would be to assume zero willingness to pay.

59. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,238–39 (citation omitted).

60. *Id.* (citation omitted).

Finally, it is worth addressing NHTSA's treatment of equity, which it also describes as non-monetizable.⁶¹ This portion of the analysis reads a bit mysteriously: in defining the term and the problem, the NHTSA report explains briskly that "Executive Order 12866 also refers explicitly to considerations of equity. '[I]n choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including . . . equity),['] and there are strong reasons, grounded in those considerations, to prevent the deaths at issue here."⁶²

This section of the analysis raises two distinct issues: whether this rule actually implicates equity concerns, and whether equity concerns (when they do exist) really are entirely non-monetizable, such that people are not willing to pay any money to secure more equitable policies.

On the first question, NHTSA's analysis is not very helpful. It articulates none of the "strong reasons" "grounded" in equity for "prevent[ing] the deaths at issue here."⁶³ Nor are these reasons obvious, at least to this author. Even recognizing that it can be difficult to address equity concerns in a principled way,⁶⁴ the analysis in this portion of NHTSA's report looks troublingly vague. It is questionable whether this kind of generic gesturing should play any role in a regulatory analysis. If NHTSA has actual concerns about equity stemming from this rule, it should articulate those concerns.⁶⁵ If it does not, then using this kind of generic claim of "non-quantifiable" benefits seems at best disingenuous and at worst misleading.⁶⁶

Even setting that concern aside, however, we might still wonder whether even so qualitative a value as equity is completely non-monetizable. It may be impossible to fully express equity concerns in monetary terms, but this is an objection of commensurability. To determine that equity cannot be monetized at all, we must ask the separate question of whether people are willing to pay any amount of money to secure equity. It is true that this question is difficult to answer, as are many questions of monetization where the relevant good is not directly traded in any marketplace.⁶⁷ But it is not

61. *See id.* at 76,238.

62. *Id.* (alterations in original).

63. *See generally id.* Equity is not even mentioned in the Regulatory Impact Analysis. *See supra* note 4.

64. Difficult, but not impossible. *See generally* MATTHEW D. ADLER, WELL-BEING AND FAIR DISTRIBUTION: BEYOND COST-BENEFIT ANALYSIS (2011) (presenting a careful method for measuring fairness concerns and for integrating those concerns with a social welfare function).

65. *See* Circular A-4, *supra* note 3.

66. Note that Executive Order 13,563 explicitly lists "equity" as an example of something that it may be "difficult or impossible to quantify." Exec. Order No. 13,563 § 1(c), 76 Fed. Reg. 3821, 3821 (Jan. 21, 2011).

67. But agencies routinely handle this concern through a variety of mechanisms. *See*

clear that this difficulty makes it plausible to assume—as NHTSA implicitly does here—that people are not willing to pay any amount of money to secure equity. For example, is there no portion of the cost of our judicial system attributable to people’s willingness to pay for equity? Perhaps not, or perhaps that kind of equity is not the kind of equity that NHTSA means to address in this regulation. But it is by no means obvious that even equity is entirely inimical to monetization, at least insofar as monetization is understood to represent only a partial valuation of underlying goods.

III. THE ROLE OF NON-MONETIZABLE EFFECTS IN COST-BENEFIT ANALYSIS

As we have seen, in its analysis of the rearview rule, NHTSA chose to use what were questionably “non-monetizable” benefits to justify monetized costs. One objection to that approach is that NHTSA failed to monetize portions of those benefits that could have been at least partially valued in money. Another concern, however, is whether—even if we accept categorizations of some benefits as non-monetizable—those benefits should affect the outcome of a cost-benefit analysis.

Perhaps this complex issue can be illuminated by considering a simplified decision context. Let us imagine that a child’s parents determine that, given all of their resource constraints, they are willing to spend \$25 to enter their high-strung but intelligent child in a science fair. They are also willing to spend significant time helping the child with research and getting the child to relevant events, and they are willing to bear the likelihood of emotional drama as the child manages the stress of the event. Let us assume that time and frustration are incommensurable with money in some way, such that even when the parents have monetized all portions of the time and frustration that they can, there is still some remainder of those goods left that they are unable to express further in monetary terms.

Suppose now that the entrance fee for the science fair is \$50. Should the parents pay to allow their child to enter? Not if their willingness to pay—in money—is only \$25. If they have done a thorough job monetizing—if they have counted everything that *can* be counted in monetary terms—then \$50 is too much for them to pay. No matter how much time and frustration they would have been willing to invest, it is still too much of one resource: money.

Consider this in simple algebraic terms. Suppose that we determine that a group of people is willing to pay 25 of resource *a* to gain outcome *x*. (This is like the family who is willing to spend \$25 to enter their child in the science fair.) Suppose that they are also willing to pay 40 of resource *b* and

15 of resource c . (These might be hours of time to be invested in the project, and some measure of emotional investment.) This means that their willingness to pay for outcome x is $25a + 40b + 15c$, such that they expect to be benefited at least that much by outcome x .

Now suppose that we learn something about the cost of gaining outcome x . If we learn that the cost is $50a$, then we know that the cost in a is greater than the family's willingness to pay in a . So we know that this is not a good choice for them; the outcome costs more than they are willing to pay for it. And—so long as no portions of b or c can be expressed in a —we can determine that this is not a good choice even without any further information about further costs. It does not matter if it would actually cost nothing in b or c —significantly less than the parents are willing to spend in those metrics. It is still a bad bargain.

Does this mean that b and c do nothing in the analysis? No. They perform the same function a does, such that they should guide the decision wherever the cost (in that resource) outweighs the benefits (in that resource).

Nor do we have to be wedded to the notion that they are forever discrete from a . Suppose, for instance, that the parents are given the option to decrease the entry fee to the science fair to \$20—below their willingness to pay in dollars—if one of them is willing to act as the chair on the science fair committee. This makes the cost of entering the science fair higher in time, but lower in dollars. In algebraic terms, it might now be $20a + 100b + 10c$. If the parents' willingness to pay is still only $25a + 40b + 15c$, then this is still not a good choice for them. That is because the cost—in b , or in this case, time—is greater than they are willing to pay in that resource.

Now consider how this approach applies to NHTSA's calculations. NHTSA has told us that it believes society is willing to pay \$6.1 million per life saved by the rearview camera rule.⁶⁸ In addition, for each life saved, the regulation would give benefits of what we will call b (saving additional life-years over the average life saved), c (the extra value that people attach to children's lives over adult lives), d (reducing the risk that people will inadvertently cause the death of their own child), and e (the equitable benefit NHTSA sees to adopting the rule). If we accept NHTSA's claim that these benefits "cannot be monetized," even a little bit, the benefits of the rule are \$6.1 million + $b + c + d + e$. But the costs are (at least) \$11.8 million.⁶⁹ Since this exceeds the \$6.1 million people are willing to pay for the benefit, this regulation cannot be justified by reference to a cost-benefit analysis. This is true regardless of how important we believe b , c , d , and e to be. So long as b , c , d , and e are non-monetizable, they can justify \$0 of

68. See Federal Motor Vehicle Safety Standard, *supra* note 4, at 76,237–38.

69. See *id.* at 76,240.

additional expenditure. Thus, regardless of the side of the equation they appear on, nonmonetary costs and benefits can have zero impact on the final determination of whether the policy passes a cost-benefit test.

Recognizing this point highlights the danger of haphazardly identifying large categories of benefits as non-monetizable, as NHTSA has arguably done here. Confusing whether something is monetizable with whether it can be completely expressed in monetary terms can lead to undervaluing the amount that people are willing to pay for a regulation. It is for this reason that regulators should be careful to distinguish monetizability and commensurability, and to practice partial valuation wherever possible.

Once we have firmly identified a set of benefits as non-monetizable, however, either because we believe they are of value, even if people will pay no money for them, or because we have already monetized everything that can be monetized, there is no room to allow non-monetizable benefits to affect the outcome of a monetary cost-benefit analysis.

Any value in non-monetizable benefits—however great—by definition cannot be captured in monetary terms, which means it cannot be captured in a monetary cost-benefit analysis. Does this suggest that it is pointless to engage in analysis of non-monetizable effects? No. It is by no means obvious that cost-benefit analysis should be the sole determinant of legal policy, and identifying and discussing non-monetizable effects may give us critical clues about how to manage other decisionmaking structures.⁷⁰ And even a proponent of the extreme position that cost-benefit analysis should be the sole decision rule used to determine final regulatory decisions should recognize that there are transparency benefits to identifying what has been categorized as non-monetizable.⁷¹ In NHTSA's case, for example, the fact

70. See, e.g., Adler, *supra* note 38, at 1381–83 (discussing cost-benefit analysis as a welfarist decision procedure). That said, this analysis does imply that the willingness-to-pay approach to monetization may have critical implications for cost-benefit analysis that have yet to be analyzed in the literature. As we have seen, the nonmonetary effects of regulations are monetized on the basis of people's willingness to pay for those effects. If we take this practice seriously, it points to a reason not to regulate when costs exceed benefits: because in those cases, the costs of the regulation exceed what people are willing to pay for it. Regulating where costs exceed willingness to pay may implicate autonomy concerns about respecting people's preferences, and it may also implicate democratic concerns about the appropriate role of agencies as agents for the public. These concerns may be separable from the typical welfarist arguments offered in favor of cost-benefit analysis as a decision tool. If they are, this would be a reason to refuse to regulate when costs exceed willingness to pay, even if willingness to pay operates as a poor proxy for welfare, as many analysts have argued it does. See, e.g., *id.* at 1381.

71. On the value of disclosure and generally transparent decisionmaking systems, see Cass R. Sunstein, *Empirically Informed Regulation*, 78 U. CHI. L. REV. 1349 (2009). See also Exec. Order No. 13,563 § 1, 76 Fed. Reg. 3821 (Jan. 18, 2011). (laying out the values underlying the regulatory system, including that it “allow for public participation and an

that NHTSA explicitly identified the goods it was treating as non-monetizable allows evaluation of whether its decisionmaking was appropriate.

CONCLUSION

In sum, it seems plausible that many of the effects of the proposed rearview camera rule cannot be completely expressed in monetary terms—that, for salient example, there can be no dollar equivalent to the experience of accidentally killing one’s child. But this should not be taken—as NHTSA appears to take it—to mean that people are willing to pay no money whatsoever to prevent any of these effects from occurring. If people are willing to pay any amount of money to prevent any of the serious harms NHTSA identifies as “non-monetizable,” then NHTSA has failed to thoroughly monetize the effects of the regulation. If NHTSA revisits its monetization policies to account for the possibility of partial monetization, which counts people’s willingness to pay money for goods whether or not the goods are completely expressible in terms of dollars, it is likely to find that the monetizable benefits of this regulation are significantly higher than its current calculations.⁷²

open exchange of ideas,” and that it “promote predictability and reduce uncertainty”); OFFICE OF MGMT. & BUDGET, OFFICE OF INFO. & REGULATORY AFFAIRS, REGULATORY IMPACT ANALYSIS: A PRIMER 2 (2011), *available at* http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf (interpreting Executive Orders 13,563 and 12,866 as requiring “a careful and transparent analysis of the anticipated consequences of economically significant regulatory actions”); Memorandum on Transparency and Open Government, 74 Fed. Reg. 4685 (Jan. 26, 2009) (calling for the establishment of “a system of transparency, public participation, and collaboration”).

72. For an opposing view on valuation and the rear-camera rule, see Melissa Luttrell, *Bentham at the OMB: A Response to Professor Rowell*, 64 ADMIN. L. REV. (forthcoming 2012). In her response, Luttrell argues that the question of whether any executive order requires regulations, like the rear-camera rule, to pass a monetary cost-benefit analysis is actually a well-settled one, and the answer is that no executive order currently in effect establishes such a completely utilitarian decision rule. Luttrell agrees that many regulatory goods that agency economists deem “incommensurable” with money are goods that—in theory—are at least partially monetizable, in the sense that there does exist some willingness to pay for these goods. However, she argues, the benefit of acquiring ad hoc valuation estimates for such incommensurable goods, goods that often cannot be even partially monetized without significant new research, in many cases will not justify the delay and expense such an expanded monetization process would require. In addition, unavoidable uncertainty regarding risk and exposure will make it impossible for agencies to defensibly monetize many valuable public health, safety, and environmental protections. Thus, she argues, it is very important that the quest for more perfect monetization not become yet another obstacle to timely and effective regulation.