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Scaling Cost-Sharing to Wages: How Employers Can Reduce Health Spending and Provide Greater Economic Security

Christopher T. Robertson*

ABSTRACT:

In the employer-sponsored insurance market that covers most Americans; many workers are "underinsured." The evidence shows onerous out-of-pocket payments causing them to forgo needed care, miss work, and fall into bankruptcies and foreclosures. Nonetheless, many higher-paid workers are "overinsured": the evidence shows that in this domain, surplus insurance stimulates spending and price inflation without improving health. Employers can solve these problems together by scaling cost-sharing to wages. This reform would make insurance better protect against risk and guarantee access to care, while maintaining or even reducing insurance premiums.

Yet, there are legal obstacles to scaled cost-sharing. The group-based nature of employer health insurance, reinforced by federal law, makes it difficult for scaling to be achieved through individual choices. The Affordable Care Act's (ACA) "essential coverage" mandate also caps cost-sharing even for wealthy workers that need no such cap. Additionally, there is a tax distortion in favor of highly paid workers purchasing healthcare through insurance rather than out-of-pocket. These problems are all surmountable. In particular, the ACA has expanded the applicability of an unenforced employee-benefits rule that prohibits

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"discrimination" in favor of highly compensated workers. A novel analysis shows that this statute gives the Internal Revenue Service the authority to require scaling and to thereby eliminate the current inequities and inefficiencies caused by the tax distortion. The promise is smarter insurance for over 150 million Americans.

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INTRODUCTION AND EXECUTIVE SUMMARY

The Affordable Care Act (ACA) has primarily focused on expanding access to health insurance, but it is time to look more closely at whether insurance is achieving its core purposes: to protect individuals from risk and to ensure access to healthcare when needed. Can health insurance better serve those purposes, and can it do so without wastefully stimulating healthcare spending?

This Article will focus on the employer-sponsored health insurance market, where most Americans are covered and will continue to be covered under the ACA.² Health insurance premiums are said to be a drag on corporate profits and global competitiveness.³ Still, much of the costs of health insurance premiums are passed on to workers as a substitute for wages.⁴ Thus, "the increasing cost of health care has resulted in relatively flat real wages for 30 years."⁵

In the United States, cost-sharing has become the primary mechanism for reducing insurance expenditures and, by extension, maintaining affordable

^{1.} See Allison K. Hoffman, Three Models of Health Insurance: The Conceptual Pluralism of the Patient Protection and Affordable Care Act, 159 U. Pa. L. Rev. 1873 (2010) (discussing health promotion, financial security, and brute luck theories). See generally D.M. Cutler & R. J. Zeckhauser, The Anatomy of Health Insurance, in 1 Handbook of Health Economics 563 (A.J. Culyer & J.P. Newhouse eds., 2000) (arguing for health insurance as a protector of economic security). For a classic economic approach to insurance, see Milton Friedman & L. J. Savage, The Utility Analysis of Choices Involving Risk, 56 J. Pol. Econ. 279, 295 (1948) (discussing risk and insurance in relation to income).

^{2.} See 26 U.S.C.A. § 4980H (West 2014) (employer mandate under the ACA); CBO's February 2013 Estimate of the Effects of the Affordable Care Act on Health Insurance Coverage, CBO (Feb 2013), http://www.cbo.gov/sites/default/files/cbofiles/attachments/43900-2013-02-ACA.pdf (projecting that as a result of the ACA, by 2023 employers sponsored coverage for 167 million non-elderly people, out of 288 million total, or 58%). But see Suja A. Thomas & Peter Molk, Employer Costs and Conflicts Under the Affordable Care Act, 99 CORNELL L. REV. ONLINE 56 (2013) (discussing problems in the employer mandate).

^{3.} See generally Toni Johnson, Healthcare Costs and U.S. Competitiveness, COUNCIL ON FOREIGN REL. (Mar. 2010), http://www.cfr.org/competitiveness/healthcare-costs-us-competitiveness/p13325.

^{4.} See Katherine Swartz, Revising Employers' Role in Sponsoring and Financing Health Insurance/Medical Care, in A FUTURE OF GOOD JOBS? AMERICA'S CHALLENGE IN THE GLOBAL ECONOMY 86 (Timothy J. Bartik & Susan N. Houseman eds., 2008) ("Depending on the circumstances, workers, companies, consumers, and company stockholders all pay varying shares of the costs.").

^{5.} Ezekiel J. Emanuel & Victor R. Fuchs, Who Really Pays for Health Care? The Myth of "Shared Responsibility," 299 JAMA 1057, 1058 (2008). See also VICTOR FUCHS, WHO SHALL LIVE? HEALTH, ECONOMICS AND SOCIAL CHOICE 127–28 (1993) ("[T]he public must pay for care under any system of finance... the ultimate cost falls on families and individuals even when the payment mechanism makes it appear that the bills are being sent elsewhere."); William M. Sage, Should the Patient Conquer?, 45 WAKE FOREST L. REV. 101, 103 (2010) ("We seem finally to have reached the point at which spending more on health care means denying our other material needs.").

coverage. 6 Cost-sharing involves patients making various out-of-pocket (OOP) payments (or "user fees") including deductibles, copays, coinsurance, and reference prices. 7

However, because cost-sharing exposure is in effect the absence of insurance for those expenses, cost-sharing can undermine the primary function of insurance. When cost-sharing exposure is too large, the beneficiary is no longer guaranteed access to the healthcare that she needs, or may only be able to secure access by reallocating from other necessities. This could trigger bankruptcy or home foreclosure. To protect the beneficiary against such risks, the insurance policy caps the annual out-of-pocket exposure: this "catastrophic limit" is the maximum exposure to uninsured risk, beyond which the individual enjoys full insurance.

Such a cap is anathema for cost control, however. Individuals rarely need extensive healthcare services. The vast majority of health spending is consumed by a few unpredictable people who account for tens of thousands of dollars of healthcare in a given year. Thus, the cap deprives the insurer of its primary cost-control mechanism at precisely the point where the expenditure decisions are most impactful on aggregate costs.

The two goals for a rational health insurance policy are thus in "inherent tension." Too high a cap hinders risk protection. Too low a cap hinders cost-control.

A significant problem has been largely ignored in health insurance design, especially in the development of cost-sharing models. Namely, individuals have

^{6.} See generally Employer Health Benefits: 2012 Annual Survey, Kaiser Fam. Found. & Health Res. & Educ. Tr. (2012) [hereinafter Employer Health Benefits 2012], http://kaiserfamilyfoundation.files.wordpress.com/2013/03/8345-employer-health-benefits-annual-survey-full-report-0912.pdf (showing the prevalence of this strategy). See also Mark A. Hall, Making Medical Spending Decisions: The Law, Ethics & Economics of Rationing Mechanisms 3–6 (1997) (explaining that some form of rationing is inevitable); Clark C. Havighurst, Prospective Self-Denial: Can Consumers Contract Today to Accept Health Care Rationing Tomorrow?, 140 U. P.A. L. Rev. 1755, 1758 (1992) (same).

^{7.} See infra Section I.A.

^{8.} Cf. Steven B. Cohen & William Yu, The Concentration and Persistence in the Level of Health Expenditures Over Time: Estimates for the U.S. Population, 2008–2009, AGENCY FOR HEALTHCARE RESEARCH & QUALITY 1, (Statistical Brief #354, Jan. 2012), http://meps.ahrq.gov/data_files/publications/st354/stat354.pdf.

^{9.} Katherine Swartz, Cost-Sharing: Effects on Spending and Outcomes, ROBERT WOOD JOHNSON FOUND. 1 (Res. Synthesis Rep. No. 20, Dec. 2010), http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2010/rwjf402103/subassets/rwjf402103_1. See also James C. Robinson, Insurers' Strategies for Managing the Use and Cost of Biopharmaceuticals, 25 HEALTH AFF. 1205, 1215 (2006) ("Benefit designs emphasizing consumer cost sharing are both too effective, pushing some patients to the brink of bankruptcy, and insufficiently effective, since a large fraction of total biopharmaceutical costs are incurred by patients who already have spent through their deductibles and annual payment limits.").

radically different abilities to bear risk. For instance, those in the top quintile are paid five times more than those in the bottom quintile. ¹⁰ And income is an accepted proxy for the ability to bear financial risk. Yet, within a given health plan, they all have the same cost-sharing burdens. Accordingly, the cap will be too high for some beneficiaries, making them "underinsured." The same cap will be too low for other beneficiaries, removing the price signal sooner than necessary and making them "overinsured." A one-size-fits-all approach sets a cost-sharing limit that is arbitrary for each individual. It is untethered to its risk-protection purpose.

As a few scholars and firms have begun to realize, the optimal insurance policy will instead be one that scales the cost-sharing burdens for each beneficiary to his or her ability to bear that uninsured risk. ¹³ Scaled cost-sharing (SCS) is feasible in a world where employers pay wages and provide health insurance; the two data points need only be linked together. One imperfect but feasible mechanism for such tailoring would look like the following: instead of exposing all beneficiaries to the same fixed dollar amount of uninsured risk per year, the insurer would expose all beneficiaries to the same percent of their wages as the uninsured risk. For example, we could use as a baseline a common cost-sharing profile that includes a \$3,000 cost-sharing cap, and apply it to a median American worker with a \$50,000 income. This median worker with an average plan faces a 6% cost-sharing ratio. We could then apply that same 6% ratio across the board, scaling the absolute cost-sharing amount upwards and downwards with each person's income. In this arrangement, each beneficiary gets roughly the protection from risk that she needs, while also continuing to have as much skin in the game as she can handle.

There are normative reasons for scaling health insurance risk to wages that track the general purposes of health insurance: fairness and access to needed care. 14 The current mechanism of using unscaled cost-sharing thresholds is regressive in application. We would not tolerate this type of regressivity if the cost-sharing burdens were conceived as taxes. Nonetheless, in a time when employer-sponsored insurance coverage is mandated and subsidized by the federal government, such an analogy may be apt. More generally, proper implementation of SCS also blunts some of the most trenchant normative objections to cost-sharing, such as those levied by luck egalitarians. 15 This Article will argue that ability-to-pay should be the overriding criterion for

^{10.} See infra Figure 1.

^{11.} See infra Section I.B.

^{12.} See infra Section I.C.

^{13.} See infra Part II.

^{14.} See infra Section II.A.

^{15.} See infra text accompanying note 102 (defining and discussing luck egalitarianism).

normative evaluation of health insurance mechanisms.

This is not a zero-sum reform. SCS should also appeal to rational employers who seek to maximize shareholder value. ¹⁶ Since the distribution of American workers' incomes is concentrated in favor of the highly compensated, proportional income-scaling will also be asymmetric, adding four times more cost-sharing than it removes, thereby significantly reducing the aggregate burden of insurance premiums. ¹⁷ SCS is also unique among "consumer-directed health insurance" reforms in that it targets high-cost healthcare, which accounts for the bulk of overall spending. Thus, SCS could significantly reduce insurance outlays in this second respect. Moreover, SCS promises to deliver better health outcomes and enhanced worker productivity for each dollar spent on health insurance. ¹⁸ For these reasons, SCS may allow a greater bargaining surplus between workers and shareholders.

After conducting a normative and economic analysis of this reform, including a review of the scant precedents in scholarship, the market, and federal law, this Article investigates the question of why employers have not widely adopted wage-scaled cost-sharing. In particular, this Article engages in legal analysis to explore and solve four potential sources of market failure.

First, one might wonder why a choice-based system, in which workers would select their own cost-sharing profiles and pay insurance premiums accordingly, has not emerged. Car and home insurance often already operate in this fashion. The longstanding practice of employers subsidizing health insurance and the legal limits on individual-rating of premiums present obstacles to this approach. In this domain, choice also presents problems of adverse selection by allowing beneficiaries to exploit their private information, which undermines the risk-pooling function of insurance. More generally, a choice-based mechanism could be compromised by the severe cognitive limits that individuals face when making such complex decisions about risk. As a result, greater intervention by employers and regulators may be sensible in this domain; they could move toward scaling while holding constant the lack of choice that exists under the status quo. Nonetheless, as an intermediate step, employers could implement scaling as a default rule.

A second significant obstacle is that well-intentioned caps on cost-sharing in the ACA limit the potential application of SCS.²⁰ This is an unfortunate flaw in the ACA, but the executive and legislative branches have fixes at their disposal. Even without such reforms, employers have considerable discretion to use

^{16.} See infra Section II.B.

^{17.} See infra Table 1.

^{18.} See infra Section II.C.

^{19.} See infra Section III.A.

^{20.} See infra Section III.B.

scaling beneath those statutory caps.

Third, there may be an agency problem. Managers responsible for designing the firm's insurance policy are paid more than the median worker, which may cause them to reject SCS even if it would improve profits for the shareholders. There is a related collective action problem in the market for talented workers. Employers are hesitant to be the first to impose higher cost-sharing burdens on their highest-paid workers, lest they lose them. Fundamentally, these problems are caused by the tax code, which creates a distortion in favor of health spending through insurance. This distortion is especially pronounced for high-paid workers.

Fourth, there may be misperceptions that current federal law prohibits this sort of "discrimination" by salary levels. ²² This Article's analysis reveals that the law is actually permissive. Indeed, it obliges employers to use scaling in order to allow lower-paid workers to get the full benefit of their health insurance without hiding tax-free compensation for top workers in the form of unnecessary insurance. Thanks to an expansion of this unenforced rule in the ACA, the IRS now has a legal mechanism to counteract the distortion of the tax preference. It need only clarify its regulations to require scaled cost-sharing. Accordingly, congressional action is unnecessary for this landmark reform. IRS action alone could better substantiate health insurance's goals and reduce its distortive effects on consumption. Scaled cost-sharing is smarter insurance.

I. COST-SHARING AND ITS LIMITS

A. Three Zones of Insurance

As a patient's spending on healthcare grows month by month in any given year, she moves through three different "zones" of insurance, from no insurance, to partial insurance, and finally to full insurance. These stages correspond to different features of typical cost-sharing schemes.

Zone 1 – No Insurance: An annual deductible gives the patient complete responsibility for the first health expenditures in a year. In other words, the patient has 100% skin in the game. In PPO plans (Preferred Provider Organizations, which cover most patients in the USA), three quarters of beneficiaries have deductibles, and the average annual deductible is less than \$1,000.²³ About one fifth of American workers are in "high

^{21.} See infra Section III.C.

^{22.} See infra Section III.D.

^{23.} Employer Health Benefits 2012, supra note 6, at 2 (showing that 77% of PPO beneficiaries have deductibles). For the distribution between PPO (Preferred Provider Organization) plans versus HMOs (Health Maintenance Organization), POS (Point of Service), and HDHP (High Deductible Health Plan) plans, see *id.* at 4 exhibit E (showing 56% in PPOs).

deductible health plans with a savings option," and in these plans the average deductible is a bit over \$2,000.²⁴ This sector has been growing quickly, more than doubling since 2009. Federal law prohibits high-deductible health plans (HDHPs) from using deductibles above about \$6,000 for individuals or \$12,000 for families, but few reach that level anyway.²⁵

- Zone 2 Some Insurance: Next, there is a middle range in which patients have insurance, but must also share the burden of healthcare consumption through copays, coinsurance, or reference pricing. A copay is a flat fee paid at a doctor's office, hospital, or pharmacy. For example, the average copay for a primary care visit is \$23 and \$118 for an ER visit. Coinsurance is a percentage of the service charge (often about 18%) that the health plan demands that the patient reimburse. Under a "reference price," an insurer pays a fixed amount for a service and the beneficiary pays all charges above that fixed amount.
- Zone 3 Full Insurance: Finally, there is a zone in which patients have no skin in the game. "Eighty-seven percent of covered workers have an out-of-pocket maximum for single coverage, but the actual dollar limits differ considerably." Most individual workers (59%) have cost-sharing burdens capped at some amount less than \$3,000 per year (or less than \$5,500 for family-coverage). Only 2% of individually covered workers are exposed to more than \$6,000 in costs per year. Nonetheless, even plans that have identical out-of-pocket limits may vary considerably on how those limits are applied, making it difficult to generalize across plans.

^{24.} Id. at 2. For the number in HDHPs, see id. at 4 exhibit E (showing 19%).

^{25.} See id. at 127 exhibit 7-31 (showing HDHPs for individuals with only 3% at the level of \$6,000 or more, and 24% over \$5,000).

^{26.} Id. at 3.

^{27.} See id. at 121 exhibit 7-21 (showing the 18% figure).

^{28.} See James C. Robinson & Timothy T. Brown, *Increases in Consumer Cost Sharing Redirect Patient Volumes and Reduce Hospital Prices for Orthopedic Surgery*, 32 HEALTH AFF. 1392 (2013) (utilizing a natural experiment to assess the impact of reference prices).

^{29.} Employer Health Benefits 2012, supra note 6, at 4-5.

^{30.} See id. at 127 exhibit 7-31 (last row, adding the first two items together: 32% for \$1,999 or less plus 27% for \$2000–\$2999). For the out-of-pocket (OOP) maximums for family coverage, see id. at 129 exhibit 7-33 (last row, adding the first three categories, yielding 51% having a maximum of \$5,499 or less).

^{31.} Id.

^{32.} See Karen Pollitz et al., Coverage When It Counts: How Much Protection Does Health Insurance Offer and How Can Consumers Know?, CENTER FOR AM. PROGRESS ACTION FUND, 6 (May 2009). http://www.americanprogressaction.org/wp-content/uploads/issues/2009/05/pdf/CoverageWhenItCounts.pdf. The authors surveyed ten insurance policies in Massachusetts and found that "annual out-of-pocket limits in many policies do not cap all forms of cost sharing." In a comparison of two particular plans, the authors note that "[b]oth policies have an annual out-of-

Overall, in the typical employer-sponsored plan, the employees bear about 18% of the cost of healthcare at the point of consumption; the remaining 82% is borne by the insurer. But for individual patients, the burden in a given year can be quite different, making an average figure misleading. Imagine Ms. Mildred Median, a patient in a plan with a \$1,000 deductible, an 18% coinsurance burden, and a \$3,000 cost-sharing maximum (the typical figures on each of these three modalities). Suppose that this year, Ms. Median will spend tens of thousands of dollars on a heart stent or a chemo drug, or other high-cost care that, in the aggregate, accounts for most health spending in the United States. After spending her \$1,000 deductible, Ms. Median will be exposed to up to \$2,000 more in costs (\$3,000 cap minus the \$1,000 deductible). Given her 18% coinsurance rate, that \$2,000 will be consumed after the next \$11,111 in healthcare expenses. Thus, Ms. Median has reached Zone 3, the range of full insurance with zero skin in the game, after consuming \$12,111 in health expenses, \$3,000 of which she paid out of pocket.

For Ms. Median, the cap is a good thing. If she also earns a median family income of about \$51,000, she has now consumed 6% of her income. Depending on her other obligations, and the amount she has put into savings, Ms. Median may not have been able to bear more risk. In this sense, the insurance is doing exactly what it was designed to do.

Even this median level of cost-sharing may be too much for middle-class Americans.³⁸ However, let us assume, arguendo, that current median levels of

pocket limit of \$5,000. Yet, the breast cancer patient would pay \$7,641 in cost sharing under Plan D and \$12,907 in cost sharing under Plan C."

^{33.} CHRIS PETERSON, CONG. RESEARCH SERV., R4049, SETTING AND VALUING HEALTH INSURANCE BENEFITS (2009) (showing that the typical employer sponsored PPO has an actuarial value of 80–84%).

^{34.} See supra discussion accompanying notes 23-31.

^{35.} See Cohen & Yu, supra note 8, at 1 (noting that "[i]n both 2008 and 2009, the top 5 percent of the population accounted for nearly 50 percent of health care expenditures" and that "those individuals ranked in the top 5 percent of the health care expenditure distribution in 2008 [had] a mean expenditure of \$35,829").

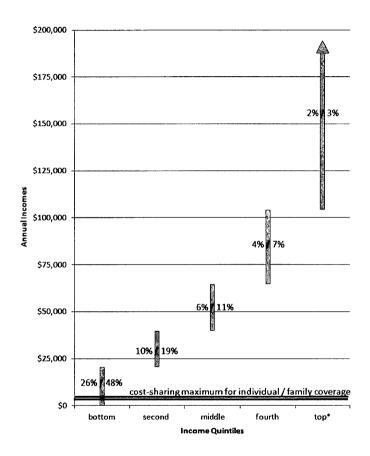
^{36.} Most plans count deductible spending towards the OOP maximum, as I do here. *See Employer Health Benefits 2012, supra* note 6, at 126 exhibit 7.30 (showing that 15–36% of plans, depending on type, exclude spending on the deductible for the OOP maximum).

^{37.} The 18% coinsurance rate, multiplied by \$11,111 yields \$2,000 more in OOP spending. When added to the \$1,000 deductible, the \$3,000 cap is reached.

^{38.} See generally JACOB S. HACKER, THE GREAT RISK SHIFT: THE NEW ECONOMIC INSECURITY AND THE DECLINE OF THE AMERICAN DREAM 137–43 (2006) (discussing the economic insecurity that even middle class Americans face due to healthcare problems). If individuals are suffering from severe cognitive biases at the point of healthcare consumption, it is also possible that current cost-sharing levels may over-correct in their function of modifying behavior. See Abigail Moncrieff, The Individual Mandate as Healthcare Regulation: What the Obama Administration Should Have Said in NFIB v. Sebelius, 39 Am. J.L. & MED. 539 (2013) (arguing that insurance solves a problem of hyperbolic discounting and optimism).

cost-sharing are appropriate, so that Ms. Median provides a point of reference. With that point of reference, we can understand the twin problems of underinsurance and overinsurance.

FIGURE 1: INCOME QUINTILES FOR U.S., LISTING TYPICAL ANNUAL HEALTH INSURANCE COST-SHARING MAXIMUMS FOR INDIVIDUALS/FAMILIES AS A PERCENTAGE OF INCOME³⁹



^{39.} Author's calculations are based on U.S. Census Bureau data for 2012 incomes. Carmen DeNavas-Walt et al., *Income, Poverty, and Health Insurance Coverage in the United States: 2012: Current Population Reports*, U.S. CENSUS BUREAU (Sept. 2013), http://www.census.gov/prod/2013pubs/p60-245.pdf. The percentages show the cost-sharing maximums (\$3,000 for individual coverage, \$5,000 for family coverage) as a proportion of income for the mean household in each quintile. *See Employer Health Benefits 2012, supra* note 6. The top 5% of incomes are visually censored. This graphic is for illustrative purposes. The actual cost-sharing maximum applicable to individuals varies depending on employers and particular plans, and the distribution of incomes within a particular employer-based plan is likely to be narrower than shown here.

B. Underinsurance

Even if manageable for Ms. Median, that same \$3,000 in health expenses in a single year could be devastating for individuals in the lower quintiles of income. As shown in the Census Bureau data plotted in Figure 1, above, those in the bottom quintile earn up to about \$20,000, less than half of Ms. Median's salary. For workers in the middle of that quintile who do not turn to Medicaid or the health insurance exchanges, a \$3,000 outlay would be 26% of income. Even in the next quintile, which may be more typical of the lower-paid but insured individuals in Ms. Median's workplace, individuals would have to spend one of every ten dollars (10% of income) on copays and deductibles. This would be on top of the taxes and health insurance premiums already paid and the other expenses that come with illness. If it is coverage for a whole family getting by on that single income, then the maximum OOP exposure is 19% of income. Even worse, at the time of a health crisis the family income may actually go down, due to the worker's own incapacity or the worker's need to care for others in the household who are severely ill.

The individuals in these lower quintiles are likely "underinsured." In other words, the cost-sharing burdens are so onerous that they undermine the functions of insurance: to guarantee access to care and to protect against devastating financial risk. ⁴³ Determining who precisely qualifies as underinsured raises a difficult line-drawing problem. ⁴⁴ But that analytical problem does not make the practical reality disappear. As one 51-year old mother of two explained, "We're all one broken leg, one bad fall, or one case of pneumonia away from the house of cards completely falling down."

There is an expansive literature on the relationship between medical problems and financial distress.⁴⁶ Even among Americans who were insured all

^{40.} DeNavas-Walt et al., supra note 39, at 9. A similar range of wages is found within firms.

^{41.} This article is focusing on employer-sponsored health insurance, but Medicaid also covers some individuals with very low incomes. *See infra* notes 129–131 and accompanying text.

^{42.} See Patricia Ketsche et al., Lower-Income Families Pay a Higher Share of Income Toward National Health Care Spending than Higher-Income Families Do, 30 HEALTH AFF. 1637, 1640 (2011) (showing that Americans in the bottom quintile of income spend, on average, about 10.2% of their income on healthcare out of pocket, while those at the top quintile of income spend only 0.9%, even though they consume more healthcare when they get sick).

^{43.} See Cathy Schoen et al., How Many Are Underinsured? Trends Among U.S. Adults, 2003 and 2007, 27 HEALTH AFF. w298 (2008).

^{44.} However, workable definitions are available. See, e.g., Rashid Bashshur et al., Defining Underinsurance: A Conceptual Framework for Policy and Empirical Analysis, 50 Med. Care Rev. 199 (1993).

^{45.} Peter J. Cunningham, Carolyn Miller & Alwn Cassil, Living on the Edge: Health Care Expenses Strain Family Budgets, CENTER FOR STUDYING HEALTH SYS. CHANGE (Res. Brief No. 10, (Dec. 2008).

^{46.} See e.g., Alison A. Galbraith et al., Nearly Half of Families in High-Deductible Health

year, one in seven reported spending over 10% of their income on out-of-pocket medical expenses. Moreover, many insured individuals report difficulty paying medical bills, changing their way of life to pay medical bills, or being dunned by collection agencies for medical bills.⁴⁷ A national survey and review of court records found that 62% of bankruptcies had medical causes, including but not limited to out-of-pocket spending, and that three quarters of those filers had medical insurance at the start of their illness.⁴⁸ Similarly, millions of home foreclosures have been attributed to medical causes, even for those with health insurance.⁴⁹ These bankruptcies and foreclosures impose externalities on creditors and neighbors.

This body of research has been controversial, with some scholars questioning the size of the problem. Some have also characterized causality determinations as problematic since so many factors may contribute to financial distress. Nonetheless, that the risk of financial disaster is exacerbated when exposure to medical costs is out of proportion to a person's ability to pay those costs rests on firm analytical footing.

Such a disparity between costs and ability to pay also distorts healthcare consumption decisions. It is worth remembering that cost-sharing is simply

Plans Whose Members Have Chronic Conditions Face Substantial Financial Burden, 30 HEALTH AFF. 322, 327 (2011) (finding that "lower income was significantly associated with greater financial burden" due to cost-sharing).

- 47. Schoen et al., *supra* note 43, at w301 exhibit 1 (13.5% paid over 10% of income in 2007); *id.* at w304 exhibit 4 (45% of underinsured and 21% of otherwise insured individuals had one of the listed problems with medical bills).
- 48. See, e.g., David U. Himmelstein et al. Medical Bankruptcy in the United States, 2007: Results of a National Study, 122 Am. J. Med., 741, 744–45 (2009); see also Tal Gross & Matthew J. Notowidigdo, Health Insurance and the Consumer Bankruptcy Decision: Evidence from Expansions of Medicaid, 95 J. Pub. Econ. 767 (2011) (finding through a quasi-experimental study that out-of-pocket medical costs roughly account for 26% of personal bankruptcies among low-income households).
- 49. Christopher Tarver Robertson et al., Get Sick, Get Out: The Medical Causes of Home Foreclosures, 18 HEALTH MATRIX 65, 90–94 (2008) (finding that more than half of foreclosures had medical causes; respondents in foreclosure who enjoyed health insurance paid an average of \$5,100 in out-of-pocket medical bills in the recent two years). See also Craig Pollack, A Case-Control Study of Home Foreclosure, Health Conditions, and Health Care Utilization, 88 J. URB. HEALTH 469 (2011) (finding an association between medical utilization and foreclosure, while finding insurance status to be comparable across cases and controls).
- 50. See Robertson, supra note 49, at 68, 97 (describing a "perfect storm" of factors conspiring to induce medical foreclosures); Edward R. Morrison et al., Health and Financial Fragility: Evidence from Car Crashes and Consumer Bankruptcy (Univ. Chi. Coase-Sandor Inst. for Law & Econ., Working Paper No. 655, 2d series, Oct. 2013), http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1657&context=law_and_economics (reviewing the literature and performing a differences-in-differences analyses comparing car accidents, medical bills, and bankruptcy filings in one state, and finding that the bankruptcy filing rate for those admitted to the hospital after an accident is 45% higher than those not admitted, but using regression controls to suggest that the causes are jointly determined by background factors).

uninsured risk, and therefore, when that amount is onerous, underinsured individuals behave just like uninsured individuals.⁵¹ Underinsured individuals decline even high-value care.⁵² One recent study of individuals in high-deductible health plans focused on emergency room visits, and distinguished between appropriate utilization for high-severity incidents and inappropriate utilization for low-severity incidents. The study found that the HDHP caused poorer beneficiaries to dramatically reduce the amount of high-severity emergency care they consumed.⁵³ Similarly, after acute myocardial infarction, it is very important for individuals to get follow-up healthcare and medication. One survey of patients with this condition found that one in seven experienced financial barriers to getting that care, and over two thirds of those enjoyed health insurance.⁵⁴ More generally, if cost-sharing causes individuals to decline high-value healthcare, it undermines the price signal of a competitive market by failing to properly reward high-impact innovations.⁵⁵

Health outcomes also suffer when cost-sharing burdens leave individuals underinsured. There are many observational studies of this phenomenon, but here too it is difficult to determine causation. There are many observable and unobservable differences between those who have adequate versus inadequate insurance. ⁵⁶ The gold-standard investigation of this phenomenon is the RAND

^{51.} See Michael D. Kogan et al., *Underinsurance Among Children in the United States*, 363 NEJM 841, 844, 847 (2010) (finding that 24% of children with continuous private insurance were underinsured, and that "the group of children who were underinsured did not differ significantly from the group of children who were never insured with respect to delayed or forgone care, lack of a medical home, [and] difficulty obtaining referrals").

^{52.} See M. Gregg Bloche, Consumer-Directed Health Care and the Disadvantaged, 26 HEALTH AFF. 1315, 1318 (2007); Steffie Woolhandler & David U. Himmelstein, Consumer Directed Healthcare: Except for the Healthy and Wealthy It's Unwise, 22 J. GEN. INTERNAL MED. 879 (2006). The RAND Health Insurance Experiment found that increased cost-sharing burdens caused individuals to decline high-value and low-value healthcare alike. See JOSEPH P. NEWHOUSE & INS. EXPERIMENT GRP., FREE FOR ALL?: LESSONS FROM THE RAND HEALTH INSURANCE EXPERIMENT 339 (1993).

^{53.} J. Frank Wharam et al., Low-Socioeconomic-Status Enrollees In High-Deductible Plans Reduced High-Severity Emergency Care, 32 HEALTH AFF. 1398 (2013).

^{54.} Ali R. Rahimi et al., Financial Barriers to Health Care and Outcomes After Acute Myocardial Infarction, 297 JAMA 1063 (2007).

^{55.} See Darius Lakdawalla & Neeraj Sood, Insurance and Innovation in Health Care Markets (Nat'l Bureau of Econ. Research, Working Paper No. 11602, 2005) (arguing on certain idealized assumptions that universal health insurance that guarantees access provides optimal incentives to patent-holders).

^{56.} See e.g., Donald P. Oswald et al., Underinsurance and Key Health Outcomes for Children with Special Health Care Needs, 119 PEDIATRICS e341 (2007) (finding that "children with special health care needs who were underinsured had significantly poorer outcomes than did children who were adequately insured"); Rahmi, supra note 54 (finding that financial barriers to care were associated with worse recovery after acute myocardial infarction, more angina, poorer quality of life, and higher risk of rehospitalization).

Health Insurance Experiment (HIE), which randomly assigned individuals to health plans with different levels of cost-sharing and monitored their health spending and health outcomes for three years. ⁵⁷ While cost-sharing did not have adverse effects on median and upper-income people, poorer individuals with chronic illnesses experienced worse health outcomes due to cost-sharing. ⁵⁸ Indeed, there have been many subsequent studies in the intervening decades, and "[t]he better studies reinforce the HIE findings that low-income people in poor health are more likely to suffer adverse health outcomes, such as increased rates of emergency department (ED) use, hospitalizations, admission to nursing homes, and death, when increased cost-sharing causes them to reduce their use of health care."⁵⁹

C. Overinsurance

Paracelsus said that the difference between a poison and a drug is the dosage. The right dose is the one that achieves the purposes of securing a health outcome while minimizing the adverse side effects. The prior section showed how too little insurance, which is to say too much cost-sharing, can undermine the purposes of protecting against risk and guaranteeing access to care. But there is also a problem of "overinsurance." Insurance can also have the opposite side effect of stimulating consumption, even among those who could afford to consume without insurance.⁶⁰

Economists call this side effect "moral hazard." Although the term is

^{57.} NEWHOUSE & INS. EXPERIMENT GRP., supra note 52.

^{58.} Id.

^{59.} Swartz, supra note 9, at 12; see also R. Scott Braithwaite & Allison B. Rosen, Linking Cost Sharing to Value: An Unrivaled Yet Unrealized Public Health Opportunity, 146 ANNALS INTERNAL MED. 602, 603 (2007) (reviewing the literature showing adverse effects of cost-sharing on indigent individuals); Dahlia K. Remler & Jessica Greene, Cost-Sharing: A Blunt Instrument, 30 ANN. Rev. Pub. Health 293 (2009) (also reviewing the literature).

^{60.} This meaning of "overinsurance" is distinct from the casualty insurance context, where the term refers to "insurance that exceeds in amount the actual cash value of the property insured." *Overinsurance*, MERRIAM-WEBSTER, http://www.merriam-webster.com/dictionary/overinsurance (last visited Apr. 9, 2014).

^{61.} See John A. Nyman, The Theory of Demand for Health Insurance 144–51 (2003); see also Mark V. Pauly, The Economics of Moral Hazard: Comment, 58 Am. Econ. Rev. 531, 531 (1968) (criticizing the understanding of moral hazard as an individual moral failing as opposed to rational economic behavior in response to lower cost); Mark V. Pauly, Adverse Selection and Moral Hazard, in Incentives and Choice in Health Care 107 (Frank A. Sloan & Hirschel Kasper eds., 2008) (distinguishing the moral hazard problem from the fact that health insurance can also expand access, solving a wealth effect); Deborah Stone, Behind the Jargon: Moral Hazard, 36 J. Health Pol. Pol'y & L. 887–91 (2011) (reviewing the literature on the way this term has been used and abused). It is also possible that insurance has a second behavioral function that causes individuals to make riskier lifestyle choices, which is sometimes referred to as "ex ante" moral hazard. See Anderson E. Stanciole, Health Insurance and Lifestyle Choices: Identifying Ex Ante

loaded, the economics are simple. If one group of persons is offered a product for free, and another group is offered a product for some affordable cost greater than zero, the latter group will consume less, all other things being equal. Full insurance (Zone 3) makes things free at the point of consumption, eliminating the possibility of making any cost-benefit tradeoffs. When costs are completely externalized to an insurer, individuals make purchases whose benefits are outweighed by the costs, which reduces social welfare.

Such purchases also disrupt the price signal that is essential to a well-functioning market. If patients have no concern for the tradeoff between price and value, producers (e.g., pharmaceutical companies) and providers (e.g., hospitals) will make goods and services with higher prices and lower value than they otherwise would. Rather than manufacturers investing in developing products that reduce costs and deliver more value to consumers, they may instead rationally invest in marketing existing products. Indeed, this seems to be happening. Indeed,

On the other hand, cost-sharing is designed to reintroduce some price sensitivity. In this way, a cost-sharing burden can reduce the number of treatments consumed or change which treatments are consumed.⁶⁵ It may change behavior in this way by causing the patient to consider "whether a purchase is worth its price" (or at least a fraction thereof) and sometimes say no.⁶⁶

When individuals exceed their cap on cost-sharing in Zone 2 and move into full insurance in Zone 3, this function is stymied.⁶⁷ To determine whether someone is overinsured, then, is to ask whether the cap is lower than necessary to achieve the purposes of health insurance. If it is lower than necessary, then

Moral Hazard in the US Market, 33 GENEVA PAPERS ON RISK & INS. 627, 644 (2008).

^{62.} See, e.g., Robinson & Brown, supra note 28.

^{63.} See REGINA E. HERZLINGER, MARKET-DRIVEN HEALTH CARE: WHO WINS, WHO LOSES IN THE TRANSFORMATION OF AMERICA'S LARGEST SERVICE INDUSTRY 84 (1999); Einer Elhauge, The Limited Regulatory Potential of Medical Technology Assessment, 82 Va. L. Rev. 1525 (1996) (discussing the distorted incentives in healthcare production).

^{64.} See Marc-Andre Gagnon & Joel Lexchin, The Cost of Pushing Pills: A New Estimate of Pharmaceutical Promotion Expenditures in the United States, 5 PLoS MED. 29, 32 (2008) (discussing a PhRMA press release and concluding that "pharmaceutical companies spend almost twice as much on promotion as they do on R&D").

^{65.} See Kennedy v. Conn. Gen. Life Ins. Co., 924 F.2d 698 (7th Cir. 1991) (explaining the behavior-modification function, and upholding an insurer's refusal to pay a provider of medical services that waived a copayment).

^{66.} Mark A. Hall & Carl E. Schneider, *Patients as Consumers: Courts, Contracts, and the New Medical Marketplace*, 106 MICH. L. REV. 643, 659 (2008); see also Michael Chernew et al., *Value-Based Insurance Design*, 26 HEALTH AFF. w195, w195–96 (2007) (describing this as "standard economic theory").

^{67.} Timothy Stoltzfus Jost, Our Broken Health Care System and How to Fix It: An Essay on Health Law and Policy, 41 WAKE FOREST L. REV. 537, 587 (2006) ("Once consumers reach the limits of the deductible, they have little reason to limit their consumption of health care").

insurance's side effect of demand stimulation is gratuitous; it is a cost without benefit.

For individuals in the top quintile of income, which starts at over \$100,000 per year and ranges to the hundreds of millions (so high that it extends well beyond the scale of Figure 1), the common \$3,000 worst-case scenario for cost-sharing would amount to only one out of every \$50 dollars they earn (2%). These individuals are likely overinsured. A \$4,000 cost-sharing exposure, or even a \$12,000 exposure, might not present an unbearable risk or undermine their access to healthcare. Many of those in the top two quintiles, representing 40% of workers, may be overinsured.

Here too, there are line-drawing and identification problems. Conceptually, one way to test for the existence of overinsurance is to remove some marginal insurance and see what happens. If the beneficiary consumes less healthcare but her health does not suffer, then the prior level of insurance may have been too large.

For median and higher-income beneficiaries, the HIE found that full health insurance stimulated spending compared to experimental conditions with bearable but substantial cost-sharing. The effect was large: in experimental conditions with nearly full insurance—i.e., people that are always in Zone 3, like those that have exceeded their caps in any policy—the health expenses were 50% greater than in plans with large but bearable deductibles. With four experimental conditions, ranging from 0% insurance to 95% insurance, a dose-response relationship appeared. Lower cost-sharing led to more spending, even though the overall exposure to risk was capped at 10% of income or \$1,000.

Notably, the HIE's observed reduction of consumption had no detectable adverse impact on the health outcomes of the median and higher-income beneficiaries. ⁶⁹ This finding suggests that they were overinsured prior to the experiment. Given the difficulties that individuals have in discerning the difference between high-value and low-value healthcare, and the lack of price transparency in the healthcare market, it is perhaps surprising that cost-sharing works at all. ⁷⁰ Nonetheless, recent empirical studies have yielded similar findings

^{68.} See generally NEWHOUSE & INS. EXPERIMENT GRP., supra note 52.

^{69.} *Id.* Similarly, a recent randomized experiment assigned one group to receive Medicaid benefits compared to a control group that did not and "showed that Medicaid coverage generated no significant improvements in measured physical health outcomes in the first 2 years, but it did increase the use of health services." Katherine Baicker et al., *The Oregon Experiment—Effects of Medicaid on Clinical Outcomes*, 368 NEJM 1713, 1713 (2013). Medicaid coverage did "raise rates of diabetes detection and management, lower rates of depression, and reduce financial strain." *Id.*

^{70.} See Uwe E. Reinhardt, The Pricing of U.S. Hospital Services: Chaos Behind a Veil of Secrecy, 25 HEALTH AFF. 57 (2006) (discussing the problem of price transparency); Peter A. Ubel, Amy P. Abernethy & S. Yousuf Zafar, Full Disclosure—Out-of-Pocket Costs as Side Effects, 369 NEJM 1484 (2013) (arguing that physicians have a duty to provide such price information to

to the HIE. They show that insurance stimulates spending and that cost-sharing reduces that effect, with little or no adverse impact documented for high-income individuals.⁷¹

It is possible for cost-sharing to reduce healthcare costs without undermining health because there are many procedures that have very high costs and little or no proven benefit. Some healthcare consumption is actually counterproductive. According to a comprehensive review of the relevant literature, less than half of all medical care is based on or supported by adequate evidence about its effectiveness. Scholars calculate that \$910\$ billion per year, or 34% of U.S. health spending is waste.

Examples of low-value but expensive healthcare include prophylactic heart stent surgeries (which cost about seven billion dollars a year but have not been

patients, and discussing state legal mandates for price transparency).

^{71.} See, e.g., Robinson & Brown, supra note 28, at 1392 (showing reductions in consumption with cost-sharing); Marika Cabral & Neale Mahoney, Externalities and Taxation of Supplemental Insurance: A Study of Medicare and Medigap 3 (Nat'l Bureau of Econ. Research, Working Paper No. 19787, Jan. 2014) (showing by regression discontinuity analysis that Medigap policies offset cost-sharing burdens in Medicare and increase program spending by 22%). See generally JONATHAN GRUBER, THE ROLE OF CONSUMER COPAYMENTS FOR HEALTH CARE: LESSONS FROM THE RAND HEALTH INSURANCE EXPERIMENT AND BEYOND 10 (2006) ("In summary, more recent work in a wide variety of settings and for a wide variety of subpopulations has confirmed the main conclusion of the H1E: higher patient co-payments reduced medical utilization.").

^{72.} See generally Christopher T. Robertson, A Presumption Against Expensive Healthcare Consumption, 49 TULSA L. REV. (forthcoming 2014). One might wonder why physicians even offer such high-cost low-value procedures. See Christopher Robertson, Susannah Rose & Aaron Kesselheim, Effect of Financial Relationships on the Behaviors of Health Care Professionals: A Review of the Evidence, 40 J.L. MED. & ETHICS 452, 463 (2012) (calling for greater regulation of physicians' financial incentives and relationships with industry); Stone, supra note 61, at 891 (suggesting that physicians rather than patients are the problem).

^{73.} See Bernard Black et al., The Impact of Health Insurance on Near-Elderly Health and Mortality 24 (Northwestern Law & Econ. Res. Paper No. 12-09, Nov. 2013) ("Insured women with health insurance were more likely to receive hormone-replacement therapy, which in hindsight raised breast cancer rates without reducing heart disease rates. Insured men are more likely to receive prostate cancer screening and follow-up testing and treatment, with no overall benefit; the testing alone carries substantial mortality risk from infection. People with health insurance are more likely to receive CT scans without strong clinical indication; the radiation exposure then predicts higher cancer rates some years hence.").

^{74.} Research on the Comparative Effectiveness of Medical Treatments: Issues and Options for an Expanded Federal Role, CBO 11 (Dec. 2007), http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/88xx/doc8891/12-18-comparativeeffectiveness.pdf. A recent review of every article published in the New England Journal of Medicine for a decade found that when randomized trials were utilized to test the efficacy of commonly used medical procedures, they failed more often than passed. Vinay Prasad et al., A Decade of Reversal: An Analysis of 146 Contradicted Medical Practices, 88 MAYO CLINIC PROC. 790, 792 (2013).

^{75.} Donald M. Berwick & Andrew D. Hackbarth, *Eliminating Waste in US Health Care*, 307 JAMA 1513, 1515 (2012); see also Barry R. Furrow, *Cost Control and the Affordable Care Act: CRAMPing Our Health Care Appetite*, 13 Nev. L.J. 822, 836–43 (2013) (reviewing this literature).

proven to be more effective than a safer and cheaper regimen of drugs) and off-label use of patented chemotherapy drugs (which have not been proven to be more effective than standard, generic drugs, and also account for billions of dollars of health spending). These patients have time to consider cheaper standard-of-care regimens, and cost-sharing may be worthwhile if it nudges them in that direction.

The foregoing examples are useful to see that the value of healthcare consumption varies widely, but it bears emphasis that this conclusion does not depend on any showing that some particular health spending is good and other health spending is bad. Nor does it depend on the proposition that cost-sharing will make patients aware of this difference. Instead, this Article is agnostic about which and how much healthcare any individual should consume. The point here is just that surplus insurance distorts those decisions when the degree of coverage is unnecessary to serve its risk-protection and access-guarantee purposes. In Section II.A, the question will become normative: whether lower-paid workers should help pay for such distortive insurance, and whether it should be subsidized through tax policy.

Further, wasteful healthcare spending arises across the income spectrum, and the presence of health insurance exacerbates that problem because it eliminates the price signal for all workers. The point here is simply that, for some workers, health insurance stimulates wasteful consumption without offsetting benefits for access and risk-protection. A lower amount of insurance could achieve its purposes just as well.

II. SCALED COST-SHARING (SCS)

Policymakers and insurance designers have been in a tug-of-war over whether to expand or contract health insurance.⁷⁸ Some have pointed to the underinsurance problem and clamored for reductions in or even the elimination of cost-sharing.⁷⁹ Meanwhile, the market, with nudges from some policymakers,

^{76.} See Christopher Robertson, The Split Benefit: The Painless Way to Put Skin Back in the Health Care Game, 98 CORNELL L. REV. 921, 928–30 (2013) (discussing these two examples and citing sources from the medical literature).

^{77.} See Steven B. Cohen & Namrata Uberoi, Differentials in the Concentration in the Level of Health Expenditures Across Population Subgroups in the U.S., 2010, AGENCY FOR HEALTHCARE RESEARCH & QUALITY 9 fig.7 (Statistical Brief #421 Jan. 2012), http://meps.ahrq.gov/mepsweb/data_files/publications/st421/stat421.pdf (showing similar distributions of high-spenders and low-spenders within each income quintile).

^{78.} See Stone, supra note 61 (reviewing this literature).

^{79.} See CAM DONALDSON, CREDIT CRUNCH HEALTH CARE 20, 26 (2011) ("User charges are an idea that is intellectually dead, but keeps coming back to threaten our publicly funded health care systems, and have thus been classed by leading health economists in Canada as a policy zombie. Occasionally, the zombie has to be slain It is wrong, unfair and ineffective to try to limit

has been moving towards greater cost-sharing, putatively to address "moral hazard." Each of these moves solves one side of the problem, but only by exacerbating the other. The more elegant solution comes from recognizing that, although overinsurance and underinsurance are both real problems, they affect two different populations. To address both sides of the problem, we need to tailor cost-sharing burdens to each beneficiary's ability to pay.

This Article develops the proposal to scale the maximum out-of-pocket exposure (the Zone 3 threshold), and suggests that ability to pay should be approximated by the worker's salary, as it is readily knowable by the employer, who pays those wages. Administrative costs may thus be minimized, since the data is already in the employer's hands. An employer would only need to multiply the wages by a simple ratio (e.g., 6%) in order to calculate a new cap on overall cost-sharing. It may be tempting to interrogate workers' ability to pay more precisely, but such efforts could become burdensome and divisive, while providing little additional accuracy compared to the large improvement gained as we move from no-scaling to income-scaling. Nonetheless, the employer should consider whether additional reliable information can be gathered at low cost, such as a certification by the employee as to whether his or her spouse earns significantly more income.

consumer and patient access through user fees . . . "); MICHAEL J. GRAETZ & JERRY L. MASHAW, TRUE SECURITY 171 (1999) (discussing the risk of medical crises reducing income below a "decent" level and causing an "unacceptably steep decline in living standards").

^{80.} See generally Robinson, supra note 9 (discussing the market and policy trend towards greater cost-sharing).

^{81.} An employer could also use the wages paid as a rebuttable presumption, and allow workers to submit contrary evidence. Generally, however, assuming that the employer is not going to also modify the premiums paid by workers to account for different cost-sharing levels, *see infra* Section III.B, then the workers will uniformly be motivated to request downward adjustments for cost-sharing, creating a skew.

^{82.} See Katherine Swartz, Expert Reflection, Easier Said than Done, 36 J. HEALTH POL. POL'Y & L. 855, 855, 857 (2011) (focusing on premiums: "[1]t is difficult to judge people's ability to afford a necessity like health insurance on the basis of simple factors such as income, age, number and age of family members, and their health status [along with]... 'deserving' exceptions..... I grudgingly began to realize that a simple percent-of-income rule was more practical and avoided moral debates that were sure to arise...."); see also, Carla Saenz, What is Affordable Health Insurance? The Reasonable Tradeoff Account of Affordability, 19 Kennedy Inst. Ethics J. 401 (2009) (proposing "the reasonable tradeoff account [where] one does not to have to sacrifice other benefit(s) that are comparable in importance to the benefits of health coverage"). See generally Didem M. Bernard et al., Wealth, Income, and the Affordability of Health Insurance, 28 HEALTH AFF. 887 (2009) (discussing correlations between wealth and income).

^{83.} Many firms already require employees to make a similar certification about whether the spouse is eligible for health insurance from another source. See e.g., Spouse/Partner Coverage Certification, MIAMI U., http://www.units.muohio.edu/humanresources/documents/formslibrary/benefitswellness/SpouseCoverageCertification.pdf (last visited Apr. 19, 2014). Note that part of the ACA seems to require firms to consider each employee's household income, to determine whether its required worker's contribution to insurance premiums complies with law, so the

A. Normative Considerations

This Section examines normative considerations around scaling. First, it considers whether scaling has a mandate from justice, and whether it is useful to draw on terms commonly used to evaluate taxation schemes. Next, it considers how ability to pay interacts with desert and value as criteria for normative evaluation of healthcare burdens.

A complete normative argument for scaling of cost-sharing burdens would require stipulation of a foundational theory of justice, but the appeal of SCS is not peculiar to any one such theory. The for instance, Norman Daniels offers a theory of "health justice," which draws from John Rawls, focusing on equality of opportunity. The application is straightforward. As shown above, those in the lower wage ranges are not getting the benefit of health insurance when their cost-sharing burdens are so high that they lack access to care and must make tragic choices on the verge of bankruptcy and foreclosure. While other insured individuals enjoy access to that same care and do not face the tragic choices, we have failed to achieve the normative goal that is equality of opportunity. Alternatively, perhaps we have failed to achieve the "decent minimum" that is required under many conceptions of justice.

These rationales track the more general arguments for ensuring access to needed care and protection against risk.⁸⁹ It is hard to imagine a theory of justice that would require universal health insurance, but would also countenance such an ineffective and unfair version of it.⁹⁰

information costs may already be sunk for that other statutory purpose. 26 U.S.C.A. \S 36B(c)(2)(C)(i)(II) (West 2014).

^{84.} For a more comprehensive discussion of the possible normative starting points, see William W. Fisher & Talha Syed, *Global Justice in Healthcare: Developing Drugs for the Developing World*, 40 U.C. DAVIS L. REV. 581, 602–47 (2007).

^{85.} See generally NORMAN DANIELS, JUST HEALTH: MEETING HEALTH NEEDS FAIRLY (2008).

^{86.} See supra note 38 and accompanying text. Note that these studies of medical bankruptcies and medical foreclosures have found a significant incidence even among those with health insurance, due to large levels of out-of-pocket medical spending.

^{87.} See Brendan Saloner & Norman Daniels, The Ethics of the Affordability of Health Insurance, 36 J. HEALTH POL. POL'Y & L. 815, 815 (2011) (discussing the onerous cost-sharing exposure that remains even under the ACA, in light of Daniels's theory of health justice).

^{88.} See generally Allen E. Buchanan, The Right to a Decent Minimum of Health Care, 13 Phil. & Pub. Aff. 55 (1984).

^{89.} See Einer Elhauge, Allocating Health Care Morally, 82 CALIF. L. REV. 1449, 1455, 1480 (1994) (arguing for a right to access the level of care enjoyed by the middle class: "An individual's ability to pay should indeed be irrelevant to determining that individual's access to the minimum of adequate care."); see also Allison Hoffman, Oil and Water: Mixing Individual Mandates, Fragmented Markets, and Health Reform, 36 Am. J.L. & MED. 7, 10–12 (2009); Sharona Hoffman, Unmanaged Care: Towards Moral Fairness in Health Coverage, 78 IND. L.J. 659, 668 (2003).

^{90.} John V. Jacobi, Consumer-Directed Health Care and the Chronically Ill, 38 U. MICH. J.L. REFORM 531, 581 (2005). (arguing that "[i]t is difficult to describe a person as having 'health

Still, there are more libertarian theories of justice that do not require universal coverage at all, regardless of scaling. Thus, although there is a broad normative mandate for SCS, its appeal may not be universal. 91 Yet whatever reasons require health insurance coverage would presumptively require SCS too. After all, cost-sharing is just the absence of insurance for certain costs.

As an alternative approach to this issue, the language of taxation may provide normative traction as to the fair distribution of healthcare expenses between individuals and their collective insurance pools. A "progressive" tax is typically paid as a percent of adjusted income, with several tiers of increasingly higher percentages. Such a policy is sensible to the extent that income past a certain level is more disposable than income at the lower levels, which must be allocated to basic human needs. A "flat rate" or "proportional" tax, is one where everyone pays the same percentage of income. Although rare today in overt forms, a "per-head" tax is one where each individual pays the same dollar-amount, regardless of wealth or income. The per-head tax is thought to be objectionably regressive.

Our current system, in which each employee faces the same amount of healthcare costs in order to get the full insurance of Zone 3, is analogous to a head tax. 95 It is regressive in the sense that lower-paid workers must pay a larger percentage of their incomes than higher-paid workers.

I am here invoking the familiar progressivity of the income tax as a way to

insurance' if she does not have 'catastrophic coverage' for unexpected, large, medically necessary care," and if that coverage means anything, it must protect people against declaring bankruptcy or losing their house on account of the medical bills).

^{91.} See Uwe Reinhardt, Uncompensated Hospital Care, in Uncompensated Hospital Care: RIGHTS AND RESPONSIBILITIES 1, 6 (Frank A. Sloan et al. eds., 1986) (arguing that normative debates about health policy are stymied by a difficulty of settling on first principles).

^{92.} See Leo P. Martinez, "To Lay and Collect Taxes": The Constitutional Case for Progressive Taxation, 18 YALE L. & POL'Y REV. 111, 117 (1999) (surveying the rationales and arguing for constitutionality). See generally Joseph Bankman & Thomas Griffith, Social Welfare and the Rate Structure: A New Look at Progressive Taxation, 75 CALIF. L. REV. 1905 (1987) (arguing that the diminishing marginal utility of money makes it efficient to take more from higher-paid individuals).

^{93.} Martinez, *supra* note 92, at 117. Even modern progressivity, which may be taken for granted, is not uncontroversial. *See, e.g.*, Frank Warren Hackett, *The Constitutionality of the Graduated Income Tax Law*, 25 YALE L.J. 427, 438 (1916) (It is "untenable . . . that a man's ability to pay ought to be taken as a measure of what he should be made to pay.").

^{94.} Sales taxes on basic goods like food staples can be regressive in this sense, because they tax each person for the fixed cost of being alive, regardless of income. Thus, those with lower incomes must pay a higher proportion of their incomes in the sales tax on the basic goods. For this reason, some jurisdictions exempt basic goods from sales tax. See Susan Pace Hamill, An Argument for Tax Reform Based on Judeo-Christian Ethics, 54 Ala. L. Rev. 1, 50 (2002).

^{95.} See Clark C. Havighurst & Barak D. Richman, Distributive Injustices in American Health Care, 69 L. & CONTEMP. PROBS. 7, 42 (2006) (explaining that the current system is regressive because higher-income members utilize services more than lower-income members).

highlight the contingent nature of our current baseline for cost-sharing, where each person pays the same amount. Against the per-capita baseline, scaling may seem provocative. But if our society had started there, it might seem completely natural, and a per-capita system might seem odd. Similarly, in addition to proportional taxation, it has become routine to use inflation-adjusted incomes to make comparisons across time, and to use purchasing power parity calculations to make comparisons across foreign currencies. The use of nominal equivalence in health insurance is thus something of an outlier.

One might take this invocation of the tax code more literally, and then challenge the applicability of normative theories of taxation to cost-sharing burdens in employer-based health insurance. Do such "public" conceptions of justice apply in the private sector? However, given the massive tax-subsidy that the United States government provides for employer-sponsored health insurance, it would be difficult to argue that these transactions are so private that they escape the demands of justice. Do such "public" conceptions of justice apply in the private sector?

Putting that predication problem aside, the current cost-sharing mechanism is even worse than a head tax or a flat tax because the ability to make initial cost-sharing payments is sometimes the precondition for accessing subsequent healthcare. Additionally, it has the effect of redistributing from common premiums paid by all to benefits enjoyed by the wealthy. ⁹⁸ These are sometimes called "vertical equity" problems. ⁹⁹ It is also perverse to charge individuals premiums for health insurance that has deductibles so high that the beneficiary is unlikely to ever actually get covered healthcare. ¹⁰⁰ Larger questions about how health insurance interacts with the tax code are revisited below. ¹⁰¹ For present purposes it suffices to show that the current per-head user fees for healthcare are regressive in application, and that SCS is a prima facie solution to that problem.

More broadly, it is interesting to see how SCS can change the terms of the

^{96.} Americans have traditionally viewed health insurance as a "private" matter, unlike taxes. Descriptively, since World War II at least, this framing has not been accurate, since the federal government has used the tax code to subsidize "private" insurance. Normatively, even aside from this public subsidy, one may cogently argue that such a fundamental determinant of wellbeing should not be conceived as a private concern, immune from the demands of justice.

^{97.} See infra Section III.C.

^{98.} Bloche, *supra* note 52, at 1322 (discussing this "Reverse Robin Hood" effect).

^{99.} See e.g., Hoffman, Oil and Water, supra note 89, at 33 (explaining that without incomesubsidies, an insurance mandate could cause the "healthy poor [to] subsidize the sick wealthy, a result many would find troubling"); see also David Pratt, The Past, Present and Future of Health Care Reform: Can It Happen?, 40 J. MARSHALL L. REV. 767, 784 (2007).

^{100.} See Paul D. Jacobs & Gary Claxton, Comparing the Assets of Uninsured Households to Cost Sharing Under High-Deductible Health Plans, 27 HEALTH AFF, w214 (2008) (arguing that it is a poor use of money to pay insurance premiums to get insurance with a deductible that one is unlikely to be able meet).

^{101.} See infra Sections III.C & III.D.

normative debates around health insurance. Consider desert and value as criteria for evaluating cost-sharing burdens in general, with or without income scaling. Along the desert dimension, some have criticized cost-sharing from the perspective of "luck egalitarianism," the theory that an individual should not bear responsibility for healthcare costs merely because one is unlucky enough to be sick. ¹⁰² Such costs are arguably not deserved for persons who have not taken unreasonable health risks. In this vein, John Nyman has asked, "What healthy person would purchase a coronary bypass procedure, a leg amputation, or a liver transplant just because the price has fallen to zero?" ¹⁰³ People buy those services because they feel that they need them, and will do so, to the extent that they are able, regardless of price. In this domain, the "behavioral" function of cost-sharing is stymied, and cost-sharing burdens may seem like an inequitable tax on being sick. ¹⁰⁴ These risks should arguably be redistributed through insurance instead.

If one had a reliable way to distinguish deserved health costs from undeserved health costs, then such a desert criterion could be implemented in conjunction with SCS. Cost-sharing would be waived for "undeserved" healthcare costs, and the remaining costs would be scaled.

However, SCS may actually obviate the need for such an adjustment. It takes much of the wind out of the "tax on sickness" critique of cost-sharing. The core intuition of the luck egalitarian is expressed as the idea that we are "a country in which no one will ever again suffer financial disaster because they had the bad luck to get sick." By adjusting cost-sharing burdens in accordance with ability to pay, SCS takes the threat of financial disaster off the table, thereby (imperfectly) ensuring that unbearable risks will not be distributed according to bad luck. Similarly, with SCS the question is no longer whether a patient will

^{102.} See, e.g., RONALD DWORKIN, SOVEREIGN VIRTUE 73 (2000) ("Brute luck is a matter of how risks fall out that are not in that sense deliberate gambles."); Hoffman, *supra* note 1, at 1922—32 (discussing the brute luck conception of health insurance).

^{103.} John A. Nyman, American Health Policy: Cracks in the Foundation, 32 J. HEALTH POL. POL'Y & L. 759, 766 (2007); see also Swartz supra note 9, at 10 (noting that in situations of intense healthcare, "people have very little control... because physicians and other providers follow norms of care").

^{104.} See Universal Health Care: Hearing on S. 531 and H. 1947 Before the S. Comm. on Ways & Means, 1999 Leg., 181st Sess. 10 (Mass. 1999) (statement of Alan Sager & Deborah Socolar, Access & Affordability Monitoring Project); NEWHOUSE & INS. EXPERIMENT GRP., supra note 52, at 356 (discussing the concern that for the chronically ill, "[p]aying the initial cost sharing year after year may also be viewed as inequitable—that is, as a tax on the sick"); Jacobi supra note 90, at 577 (similar); Peter Vallentyne, Brute Luck, Option Luck, and Equality of Initial Opportunities, 112 ETHICS 529, 532–38 (2002) (similar); Daniel Wikler, Who Should Be Blamed for Being Sick?, 14 HEALTH EDUC. & BEHAV. 11 (1987) (similar).

^{105.} Hoffman, *supra* note 1, at 1922 (quoting Congressman Steny Hoyer); *see also* Bloche, *supra* note 52, at 1325 ("Medical coverage is more than a business proposition; it is an expression of our commitment to each other. Cost sharing *that renders high-value care unaffordable* breaches this commitment.") (emphasis added).

have access to healthcare. The question is simply whether its bearable costs should be paid individually or collectively.

In this light, while SCS will cause high-income individuals to pay more in absolute terms when they get sick, it is difficult to say that such a burden is unjust. High-income individuals likely also benefitted from luck in other dimensions of life. ¹⁰⁶ Unless luck egalitarians are going to undertake a massive multidimensional redistribution scheme, there would seem to be no reason to focus on health in particular. Thus, where the luck egalitarian critique of costsharing has the most intuitive force, SCS moots the concern. These considerations suggest that the criterion of "ability to bear risk" should be prioritized over the "deservedness" criterion when designing cost-sharing mechanisms. To the extent that a luck egalitarian objection to cost-sharing remains forceful, SCS has clarified the terms of the debate.

Consider a more profound rejoinder that any proposal to increase cost-sharing, even among the relatively wealthy, is unjust. Rather than putting an affordable price on healthcare as a rationing function, one could cogently argue for other mechanisms: some central planner—a private or public regulator—could simply refuse to allow healthcare spending that seems wasteful at the prices demanded by producers and providers. One difficulty of such an approach is that drugs and devices may be more valuable for some individuals than others because of heterogeneity in biology, social circumstances, and personal preferences. This makes it difficult for a third party to assess value to a particular patient. Another difficulty is that such centralized rationing tends to reduce patient choice. Cost-sharing is unique as a rationing mechanism because it keeps the choice in the hands of the incentivized consumer. For these reasons, low-income and high-income individuals alike may rationally prefer SCS over other rationing mechanisms. Nonetheless, let me emphasize that the argument

^{106.} Luck egalitarians could assert a much more radical thesis that even *bearable* unlucky costs (e.g., the risk of needing an aspirin from the drugstore) should be redistributed through social insurance. For a set of similarly radical claims, nonetheless focusing on expensive treatments, see Shlomi Segall, *Is Health (Really) Special? Health Policy Between Rawlsian and Luck Egalitarian Justice*, 274 J. APPLIED PHIL. 344 (2010) (arguing for public funding of breast reduction surgery, skin color change treatments, gender reassignments, and even surgery to allow male pregnancy, if possible, primarily because they would be unaffordable otherwise).

^{107.} See Christopher Robertson & David Yokum, The Burden of Deciding for Yourself, 11 IND. HEALTH L. REV. (forthcoming 2014).

^{108.} See generally Elhauge, supra note 63 (discussing the difficulty of rationing according to cost-benefit analyses).

^{109.} See Consumer-Driven Health Care: Implications for Providers, Payers, and Policymakers, at xvii (Regina Herzlinger ed., 2004) (describing "a radical turn away from the technocratic, top-down policies that just say no to providers and consumers"); John Bronsteen et al., ERISA, Agency Costs, and the Future of Health Care in the United States, 76 Fordham L. Rev. 2297, 2330 (2008) (similar); Robertson supra note 76, at 931–43 (explaining the problems with physician rationing and insurer rationing).

here is conditional: if a health insurance system chooses to utilize cost-sharing, then it should be scaled.

Along another dimension of evaluation, some have argued that cost-sharing burdens should be adjusted to reflect the value of the underlying healthcare consumption in order to steer patients towards higher-value healthcare. ¹¹⁰ In this move towards "value-based insurance design" (VBID), the highest-value procedures—like vaccinations—would have no cost-sharing burden at all. ¹¹¹ This move can address paternalistic concerns that cost-sharing may harm health, even for individuals that can afford those costs. Where such instances can be identified, cost-sharing can and arguably should be waived.

Sometimes VBID may involve scaling upwards as well. For example, insurers have imposed cost-sharing tiers for pharmaceuticals to shift patients towards generic drugs, which have a better cost-benefit profile. One problem with this value-based approach is that when costs are scaled upwards, lower-paid beneficiaries may lose access to the more expensive treatments, which are thought to be low-value, and such a change would thereby also undermine equality of opportunity. One might cogently argue that lower-income individuals should not have access to high-cost, low-value healthcare. But if insurance designers have normative commitments to access, equality of opportunity, or patient choice, value-scaling may thus be problematic as applied to lower-income individuals.

Here too, if there is a problem, the solution is to calibrate value-scaling according to the more fundamental criterion of ability to pay, which arises from the very purposes of insurance. The objection to value-scaling can thereby be resolved by SCS when the mechanisms are used together.

While one may be ecumenical about the values that health insurance serves, the foregoing arguments have suggested that ability to pay should be preeminent, as it arises from the very purposes of insurance itself. More broadly, it is clear that there are normative imperatives for reform towards SCS. These normative considerations should inform policy debates and motivate reform in the private

^{110.} See Swartz, supra note 9, at 4 (describing this as one of two major "trends in health insurance," but noting that "to date, the handful of studies on the effects of VBID have been conducted by advocates of VBID"); see also Elhauge, supra note 89, at 1480 (arguing that there should be a diversity of health insurance plans, which would allow consumers choice of rationing priorities); Russell B. Korobkin, Comparative Effectiveness Research as Choice Architecture: The Behavioral Law and Economics Solution to the Health Care Cost Crisis, 112 MICH. L. REV. 523 (2014).

^{111.} Cf. Patient Protection and Affordable Care Act § 1001(5), 42 U.S.C.A. § 300gg-13 (West 2014) (prohibiting insurers from imposing copays for preventive services). See generally Braithewaite & Rosen, supra note 59; Chernew et al., supra note 66.

^{112.} See Robinson, supra note 9, at 1212 (discussing pharmaceutical tiers and the limits of the technique being applied more broadly).

market for health insurance.

B. Precedents

There are intellectual precedents for SCS. In the market for goods and services, sellers often use differential pricing to sell to consumers with a range of willingness to pay. This strategy can increase access to goods and improve profits for the seller, enhancing overall welfare. Several European countries have adopted income scaling for speeding tickets in an effort to make the deterrent effect proportionate across heterogeneous drivers. The market for goods and services are seller, enhancing overall welfare.

For health insurance in particular, it is important to distinguish the proposal for scaling cost-sharing (out-of-pocket payments by insured individuals for their medical care) from the scaling of insurance premiums (monthly payments required in order to maintain an active insurance plan). Many scholars have recommended this latter option, which already appears in some federal programs and in benefit plans for about 10% of large employers. While premium scaling may serve fairness goals, it does almost nothing on its own to solve the problems of underinsurance and overinsurance.

With respect to scaling of cost-sharing in particular, in the 1970s Martin Feldstein argued for a government-sponsored health insurance system, which would include "an annual direct expense limit (i.e., deductible) that increased with family income," an idea that he has occasionally revisited with co-

^{113.} See generally ROBERT L. PHILLIPS, PRICING AND REVENUE OPTIMIZATION 74 (2005). Variants of this strategy include pure price discrimination, as well as the differentiation of very similar products (e.g., Honda and Acura), so that individual consumers can reveal their own willingness to pay. Coupons are thought to have a similar effect, allowing consumers with greater price sensitivity (and lower opportunity costs for their time) to gain access to consumer products that would otherwise be too expensive.

^{114.} See Frank Jordans, Speeding Fines Being Linked to Income in Europe, SFGATE, (Jan. 11, 2010), http://www.sfgate.com/news/article/Speeding-fines-being-linked-to-income-in-Europe-3275939.php (reporting a record speeding fine of \$290,000 for a Ferrari driver in Switzerland).

^{115.} See, e.g., Richard L. Kaplan, Top Ten Myths of Medicare, 20 ELDER L.J. 1, 25–28 (2012) (explaining that the ACA also created an additional Medicare payroll tax for high-earnings individuals); Richard L. Kaplan, Taking Medicare Seriously, 1998 U. Ill. L. Rev. 777, 792–94 (1998) (discussing income-based means testing in Medicare); Employer Health Benefits 2012, supra note 6, at 73 (the 10% figure for employers); Mary E. Medland, Shaving Health Costs, HR MAGAZINE, June 2005, at 95–96 (discussing prevalence among employers); Saloner & Daniels, supra note 87, at 820 (arguing for "progressive financing" of insurance premiums but noting that "[t]he more payments at the point of service such a system involves, the less progressive it will be (and the ACA includes some such payments)"). The ACA also created refundable tax credits keyed to income to subsidize insurance premium payments for poorer individuals in the exchanges. See Seth J. Chandler, The Architecture of Contemporary Healthcare Reform and Effective Marginal Tax Rates, 29 Miss. C. L. Rev. 335, 339–40 (2010) (discussing section 1401(a) of the Affordable Care Act).

authors. 116 Later that decade, the RAND HIE included a \$1,000 "stop-loss" cap on cost-sharing burdens in all their plans (equal to \$3,846 in 2013), but scaled that cap downwards for lower-income participants. 117 While the study has been a cornerstone of health policy research for decades, this particular feature of scaling has received scant attention. 118

In the 1980s, a few scholars included income tiers for cost-sharing in comprehensive reform proposals for Medicare. In a 1985 survey of employers, Herzlinger and Schwartz found that 7% of firms were scaling deductibles according to income, and they recommended broader adoption of the mechanism. In 120

In the early 1990s, in the only article dedicated to the idea, Rice and Thorpe proposed scaling in the employer-based insurance market, and proposed changes to the tax code to account for other sources of income. ¹²¹ Rice and Thorpe also noted that some extant employers (about 2–3%) were then using simple forms of scaling. ¹²² Contemporary research has revealed a few such examples. ¹²³

^{116.} Martin S. Feldstein, A New Approach to National Health Insurance, 23 Pub. Int. 93, 99 (1971); see also David Drake, Mandate for 21st Century America: Universal Health Insurance 68 (2007) (attributing the idea to Feldstein and developing it further); Martin Feldstein & Jonathan Gruber, A Major Risk Approach to Health Insurance Reform, in 9 Tax Policy and the Economy 103, 103–04 (James M. Poterba ed., 2005) (calculating welfare effects of the proposal, arguing that it could "reduce aggregate health spending by nearly 20 percent"); Martin S. Feldstein, The High Cost of Hospitals and What to Do About It, 48 Pub. Int. 40 (1977) (similar).

^{117.} The scaling was based on 5, 10, or 15% of annual income (depending on experimental condition). See Newhouse & Ins. Experiment Grp., supra note 52, at 6, 401–02. The experiment was conducted between 1971 and 1982. Using 1977 as the year for reference, the \$1,000 cap on cost-sharing would be equal to \$3,846 in 2013 dollars. See Robert H. Brook et al., The Health Insurance Experiment: A Classic RAND Study Speaks to the Current Health Care Reform Debate, RAND Corp. 2 (2006), http://www.rand.org/content/dam/rand/pubs/research_briefs/2006/RAND_RB9174.pdf (using 1977 as the reference-year); CPI Inflation Calculator, BUREAU LAB. STAT., http://data.bls.gov/cgi-bin/cpicalc.pl?cost1=1000&year1=1977&year2=2013 (showing \$3,844.17 in 2013 value).

^{118.} See, e.g., Frank A. Sloan & Chee-Ruey Hsieh, Health Economics 102 (2012) (discussing the RAND study as pivotal for understanding health economics).

^{119.} See William C. Hsiao & Nancy L. Kelly, Medicare Benefits: A Reassessment, 62 MILBANK MEM'L FUND Q. HEALTH & SOC'Y 207, 219 (1984) ("If patients have to share in the cost of medical care, they should do so according to their ability to pay."); Laurence S. Seidman, Income-Related Cost Sharing: A Strategy for the Health Sector, in NATIONAL HEALTH INSURANCE: WHAT NOW, WHAT LATER, WHAT NEVER? (Mark V. Pauly ed., 1980) (proposing scaling to be carried out through federal income tax credits).

^{120.} Regina E. Herzlinger & Jeffrey Schwartz, *How Companies Tackle Health Care Costs: Part I*, HARV. BUS. REV., July-Aug. 1985, at 69, 73; *see also* HERZLINGER *supra* note 63, at 257–58 (reiterating such a proposal in 1999 as one element of a major healthcare reform proposal); Herzlinger & Schwartz, *supra*, at 79 ("To ensure equity," catastrophic coverage "should be scaled to income.").

^{121.} Thomas Rice & Kenneth E. Thorpe, *Income-Related Cost Sharing in Health Insurance*, 12 HEALTH AFF. 21, 23 (1993).

^{122.} Id.

Since 2000, a few scholars have mentioned the idea of SCS in a sentence or two as part of a larger analysis.¹²⁴ For instance, in a 2006 working paper Jonathan Gruber argued that "ideally, such income-related cost-sharing limits should be incorporated into health insurance more broadly," and used a 5% cap on cost-sharing to illustrate that it could provide significantly greater protection for many Americans.¹²⁵

Thus, although the concept of scaling has been recognized periodically, it has not yet achieved the sustained attention and prominence in scholarly and policy debates that it deserves. ¹²⁶ There has been no sustained consideration of

123. See e.g., Michelle Andrews, Employers Consider Cutting Health Insurance Premiums for Lower Paid Workers, WASH. Post, Dec. 5, 2011, http://www.washingtonpost.com/national/health-science/employers-consider-cutting-health-insurance-premiums-for-lower-paid-workers/2011/11/30/gIQA19GCWO_story.html (describing how Pitney Bowes modified one of its health plans in 2011 so that it "sets the deductible, out-of-pocket maximum and company contribution based on salary. Hourly workers, for example, have a \$1,500 deductible and \$3,000 out-of-pocket maximum, while employees at the director level or higher have a \$2,500 deductible and \$5,000 out-of-pocket maximum."); Payers Refine Cost-Sharing Techniques to Target Patient Behavior, Treatment Choices, Managed Care Wk., Dec. 8, 2003, at 1 (quoting Arnold Milstein discussing and endorsing a move by Rockwell Automation Inc., which "have now begun for the first time to income tier for maximum out-of-pocket limits"); 2013 Benefits Enrollment Guide, HARV. HUM. RESOURCES 11, http://www.employment.harvard.edu/benefits/pdf/Benefits_Enrollment_Guide.pdf (describing a program that reimburses all further copayments for individual employees earning less than \$95,000 who spend over \$270 on office visits or \$1,000 on prescription drugs and sets lower thresholds for those earning less than \$70,000).

124. See TIMOTHY STOLTZFUS JOST, HEALTH CARE AT RISK: A CRITIQUE OF THE CONSUMER-DRIVEN MOVEMENT 196 (2007) (suggesting a major healthcare reform including "[r]easonable outof-pocket maximums... based on household income"); Bloche, supra note 52, at 1316 (arguing for "reducing deductibles and copayments for the less well-off"); Alain C. Enthoven & Victor R. Fuchs, Employment-Based Health Insurance: Past, Present, And Future, 25 HEALTH AFF. 1538, 1541 (2006) ("Many people believe that a fairer system would allocate costs more in proportion to income because much of the demand for health care arises from reasons beyond the individual's control, such as genetic predisposition to heart attack or cancer."); Havighurst & Richman supra note 95, at 45 ("Our concerns . . . would be obviated if employers generally offered their employees separate plans, each designed for a different income group."); Hoffman supra note 1, at 1915 (mentioning the possibility of "tailoring unacceptable out-of-pocket exposure based on individual income or assets"); Swartz supra note 9, at 24 ("[I]nsurance . . . could contain a cap on the percentage of income that an individual or family has to pay out-of-pocket for medical care."); J. Frank Wharam, Dennis Ross-Degnan & Merideth Rosenthal, The ACA and High-Deductible Insurance—Strategies for Sharpening a Blunt Instrument, 369 NEJM 1481 (2013) ("[V]ulnerable people should be shifted into low-cost-sharing plans. Larger employers might be best positioned to adopt this approach, by making employees' premium and deductible obligations proportional to their income. They could do so in a cost-neutral manner by cross-subsidizing low-income workers."); Wharam et al., supra note 53, at 1404 ("[P]olicy makers could use similar means-based mechanisms to limit deductibles for low-income people.").

125. Gruber, *supra* note 71, at 12.

^{126.} See, e.g., Katherine Baicker & Dana Goldman, Patient Cost-Sharing and Healthcare Spending Growth, 25 J. Econ. Persp. 47 (2011) (discussing wealth effects of cost-sharing and reviewing potential reforms to cost-sharing, without discussing income-scaling).

the idea in the legal literature. Indeed, prior to this Article, a leading textbook noted that "nobody [was] proposing a consumer-directed health care plan that would force individuals to pay a large share of extreme medical expenses, such as the costs of chemotherapy, out of pocket." This Article does precisely that, for those who can afford to pay such costs. At the same time, the Article proposes to significantly reduce or eliminate cost-sharing for those who are presently underinsured.

There are examples of scaling in public healthcare systems abroad, which often simply waive cost-sharing burdens for poorer beneficiaries rather than scaling proportionally along the full income spectrum. ¹²⁸ In the United States, the Medicaid program is likewise income-tested for eligibility (with thresholds varying by state), and within Medicaid there is only nominal or sometimes income-tiered cost-sharing. ¹²⁹ Congress has also provided that Medicaid benefits can be used towards Medicare cost-sharing burdens, thus implicitly creating SCS within Medicare for "dual-eligibles" who are enrolled in both programs. ¹³⁰ Some state "safety net" programs impose scaled cost-sharing burdens. ¹³¹ The drug benefit in Medicare Part D also uses an income and wealth test to limit cost-sharing burdens for the poorest enrollees. ¹³² The Veterans Administration waives

^{127.} Paul Krugman & Robin Wells, *The Health Care Crisis and What to Do About It*, N.Y. REV. BOOKS, Mar. 23, 2006, http://www.nybooks.com/articles/archives/2006/mar/23/the-health-care-crisis-and-what-to-do-about-it/.

^{128.} See, e.g., Nadeem Esmail, Health Care Lessons from Japan, Fraser Inst., at iv (Apr. 2013), http://www.fraserinstitute.org/uploadedFiles/fraser-ca/Content/research-news/research/publications/health-care-lessons-from-japan.pdf ("All health services in Japan are subject to a uniform 30% co-insurance rate . . . [but t]hose in a state of low income . . . receive subsidies for cost sharing or are exempted."); Alessandra Lo Scalzo et al., Italy: Health System Review, 11 HEALTH Sys. IN Transition 1, no. 6, 2009, at i, xxi (describing how in Italy, "[c]ost-sharing exemptions exist for various groups, including . . . people over 65 years of age with gross household income less than €36 152 per annum"); Philipa Mladovsky et al., Health Policy Responses to the Financial Crisis in Europe, WHO 17, 39 (Policy Summary No. 5, 2012), http://www.euro.who.int/_data/assets/pdf_file/0009/170865/e96643.pdf (discussing Austria's cap on prescription fees for low-income individuals).

^{129.} See Cost Sharing Out of Pocket Costs, MEDICAID.GOV, http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Cost-Sharing/Cost-Sharing-Out-of-Pocket-Costs.html (last visited Apr. 19, 2014).

^{130.} For an overview of these programs, see *Medicare Savings Programs*, MEDICAID.GOV, http://www.medicare.gov/your-medicare-costs/help-paying-costs/medicare-savings-program /medicare-savings-programs.html (last visited Sept. 13, 2013). Similarly, some states pay deductibles for qualified (low-income) Medicare beneficiaries. *See* 42 U.S.C. § 1396a(a)(10)(E) (2006); New York City Health & Hosp. Corp. v. Perales, 954 F.2d 854, 859 (2d Cir. 1992) (discussing that provision).

^{131.} See, e.g., Mark Hall, The Costs and Adequacy of Safety Net Access for the Uninsured, ROBERT WOOD JOHNSON FOUND. 4 (June 2010), http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf61566 (showing required copayments for hospital inpatient care ranging from \$22 at 40% of the federal poverty level to \$945 at 250% of the federal poverty level).

^{132.} See Mark V. Pauly, Means-Testing in Medicare, 33 HEALTH AFF. 546, 547 (2004) ("For

copays for the poorest beneficiaries. 133

Today, the Affordable Care Act's health insurance exchanges include caps on cost-sharing burdens for individuals who buy insurance therein. These caps reduce OOP liability by two thirds, one half, or one third for poorer individuals. The ACA further requires that the actuarial value of plans be increased for poorer individuals, so that the insurer bears more of the risk than they otherwise would. The ACA further requires that the insurer bears more of the risk than they otherwise would.

The income scaling for cost-sharing in the current federal programs only operates on the lower end of the income spectrum, enhancing the risk protection goal for those well below median income (and even in that direction, it is questionable whether these reforms go far enough). These policies do not apply to employers in the large group market where most non-elderly Americans are insured, the focus of this Article. Nonetheless, these precedents of income scaling being widely used in government programs, along with the evidence of it being implemented by some extant employers, provide evidence that SCS is feasible.

those with incomes below 135 percent of the federal poverty level and with low wealth . . . cost sharing would be limited to no more than \$5 per prescription. The subsidy and the reduced cost sharing adjust on a sliding scale, phasing out at an upper limit of 150 percent of poverty.").

^{133.} See 38 C.F.R. § 17.110(c)(3) (2013); id. § 17.108(d)(10) (incorporating 38 U.S.C. § 1722 (2006)).

^{134. 42} U.S.C.A. § 18071(c)(1)(A) (West 2014); see generally Chandler, supra note 115, at 345–46 (discussing these provisions).

^{135. 42} U.S.C.A. § 18071(c)(1)(C)(2) (West 2014).

^{136.} Saloner & Daniels, *supra* note 87, at 822 ("[E]ven with the protections from the exchanges, such families would be spending a large portion of their limited income on medical spending").

^{137.} See supra note 2 and accompanying text; see also David Gamage, Perverse Incentives Arising from the Tax Provisions of Healthcare Reform: Why Further Reforms are Needed to Prevent Avoidable Costs to Low- and Moderate-Income Workers, 65 Tax L. Rev. 669, 672 (2012) (describing "the mismatch that the ACA will create between the tax subsidies available for employer sponsored health insurance and those available for the health insurance purchased by individuals. . . . [T]he ACA maintains . . . tax benefits for employer-sponsored health insurance (which primarily benefit higher-income taxpayers), whereas the new tax subsidies that the ACA will create for health insurance purchased by individuals will primarily benefit lower-income taxpayers.").

TABLE 1: THE ASYMMETRIC IMPACT OF SCALING OUT-OF-POCKET (OOP) MAXIMUMS ON TOTAL HEALTH SPENDING THRESHOLDS FOR FULL INSURANCE (ZONE 3) BASED ON 6% OF HOUSEHOLD MEAN INCOME FOR EACH INCOME QUINTILE 138

Quintile Mean Income	Current OOP Cap	SCS OOP Cap	Change in OOP Cap	Current Zone 3 Threshold	SCS Zone 3 Threshold	Change in Zone 3 Thresholds
\$11,000	\$3,000	\$1,000	-\$2,000	\$12,000	\$1,000	-\$11,000
\$30,000	\$3,000	\$2,000	-\$1,000	\$12,000	\$7,000	-\$5,000
\$51,000	\$3,000	\$3,000	\$0	\$12,000	\$12,000	\$0
\$82,000	\$3,000	\$5,000	+\$2,000	\$12,000	\$23,000	+\$11,000
\$182,000	\$3,000	\$11,000	+\$8,000	\$12,000	\$57,000	+\$45,000
Averages	\$3,000	\$4,400	+\$1,400	\$12,000	\$20,000	+8,000

C. Rationality for Employers

This Part considers whether SCS might be a rational way for profit-seeking employers to provide health insurance. Some have argued that corporate managers are sometimes permitted to "sacrifice corporate profits" when it is in the public interest. ¹³⁹ Arguably, no such sacrifice is necessary for employers to adopt scaling of cost-sharing, as SCS is likely to reduce overall insurance outlays (and thus reduce premiums paid by employers) even if it does not change consumption behavior. SCS may also change employee consumption behavior in ways that reduce costs to the insurer and the employer, though there are empirical questions about that effect. SCS may additionally improve worker productivity and the perceived value of the health insurance benefit to workers.

To illustrate these effects, this Part specifies a particular way in which SCS could be implemented. For the sake of simplicity, it assumes that an employer offers only one health insurance plan, but wishes to implement scaling therein.

In principle, all three of the cost-sharing zones could be scaled. At the threshold between Zones 1 and 2 (no insurance and some insurance), annual deductibles could be multiplied by a wage ratio so that higher-paid individuals remain in the no-insurance zone longer than poorer individuals. In Zone 2, the amounts of copays and coinsurance could likewise be scaled so that a poorer individual would pay \$50 or 10% for a doctor's visit, while a higher-paid

^{138.} Quintile means from DeNavas-Walt et al., *supra* note 39. Zone 3 threshold assumes \$1,000 deductible that counts towards OOP cap, and 18% copay, as in notes 36–37, *supra*. All figures rounded to nearest \$1,000 before calculations.

^{139.} Einer Elhauge, Sacrificing Corporate Profits in the Public Interest, 80 N.Y.U. L. REV. 733, 743–47 (2005) (arguing that corporate managers have some bounded discretion to "sacrifice corporate profits" to advance public interest concerns that have a nexus to corporate operations).

^{140.} See supra Section I.A for the definition of zones.

individual would pay \$100 or 20%. ¹⁴¹ Scaling could also be implemented at the Zone 3 threshold (the cap on annual OOP spending) so that poorer individuals enter full insurance at a lower level of spending than higher-paid individuals.

Suppose that an employer simply chose to scale the Zone 3 threshold, and did so on a simple proportion of income. If the employer believed that its current median level of cost-sharing (say \$3,000 or 6% of income for the median worker) was appropriate for those workers, it could use that point as a fulcrum for scaling. And, for simplicity of illustration, suppose that rather than calculating each worker's OOP maximum individually, the employer used tiers by assigning the cost-sharing level based on the mean income of each quintile and rounding to the nearest thousand. This is a conservative assumption. 142

Scaling the Zone 3 threshold is the simplest and most compelling way to communicate the concept of scaled cost-sharing because it represents the maximum uninsured risk that an individual faces, which obviously should be related to her ability to bear that risk. Scaling this threshold is impactful for two reasons. First, small changes in the Zone 3 threshold can have a big impact on whether an individual has any price sensitivity when making major consumption decisions, since cost-sharing burdens are typically only a small portion (e.g., 18%) of total healthcare costs. Recall the well-paid individual that faces a \$3,000 OOP maximum and pays an 18% copay, and thus receives full insurance at the point of \$12,111 in total healthcare spending. Adding another \$1,000 to the Zone 3 threshold would keep the patient engaged with a price signal for an additional \$5,556 of health spending that year (the inverse of 18% multiplied by \$1000).

Many firms have a skewed distribution of wages, highly concentrated in their top employees, ¹⁴⁴ not unlike the distribution in the American population at large, shown in Figure 1. A proportional SCS profile (such as 6% of income) will therefore tend to increase cost-sharing obligations and reduce insurance costs on net. As shown in Table 1, for the person earning \$82,000 in the middle of the next income quintile above the median, the 6% SCS would move her \$3,000

^{141.} Although more complicated, such a move would likely be feasible, given that healthcare providers must already check the card or computer system to determine what amount to charge at the point of service.

^{142.} Because the incomes in each quintile are asymmetrically distributed, a policy of individual-tailoring, rather than the example of quintile-tiers, would have even greater effect.

^{143.} See supra notes 33-37 and accompanying text for the discussion of "Ms. Median."

^{144.} See HARRY J. HOLZER, WHERE ARE ALL THE GOOD JOBS GOING?, 50 fig.2-9 (2011) (showing that in the middle quintile of firms, the average salary paid to workers at the 90th percentile was about five times that paid to workers in the 10th percentile). Also, across firms, "low-wage firms tend to pay a smaller percentage of premium costs and to offer policies with fewer benefits," which likely includes higher cost-sharing burdens. Nancy S. Jecker, Can an Employer-Based Health Insurance System Be Just?, 18 J. HEALTH POL. POL'Y & L. 657, 660 (1993).

OOP maximum to \$5,000, a difference of \$2,000 more. The person earning in the middle of the quintile below the median gets a \$1,000 reduction in cost-sharing. Comparing these two quintiles, we see that SCS creates twice as much new cost-sharing exposure as it eliminates. Similarly, the comparison between the lowest and highest quintiles shows that SCS creates four times as much cost-sharing exposure as it eliminates.

The effect on Zone 3 (full insurance) thresholds is even more dramatic. The average Zone 3 threshold experienced by workers across all quintiles goes up to about \$20,000 (an increase of 66%) with SCS, due to the skew in wages. This makes SCS quite consonant with broader economic trends towards consumer-directed healthcare and increasing cost-sharing trends over time. ¹⁴⁵ SCS provides a better way to do what employers are inclined to do anyway.

Even aside from any impact on consumption behavior, this change will dramatically reduce the amount of health spending that is imposed on the insurer, as more of it will instead be borne by the highly paid workers out-of-pocket. Thus, as the insurer is bearing less of the risk, insurance premiums should be reduced on net. This reform creates a bargaining surplus for the shareholders.

A second reason that Zone 3 is impactful is that nearly two thirds of healthcare spending occurs at the high end, concentrated among the 10% of individuals who spend an average of \$22,000 in a year. As a primary textbook in the field explains, "When you think of the problem of health care costs, you shouldn't envision visits to the family physician to talk about a sore throat; you should think about coronary bypass operations, dialysis, and chemotherapy." Although lots of health spending is incurred by those who are elderly (in Medicare) or poor (in Medicaid), a similar concentration of spending is also found in private insurance pools, and among both highly paid and low-paid workers. By increasing the Zone 3 threshold from \$12,000 to \$57,000 for the highest quintile of workers (as shown in Table 1), the SCS reform is uniquely able to provide a solution to costly spending in this impactful domain. Reductions in cost-sharing for lower-paid workers will instead impact the domain of health spending that is less consequential. This suggests that SCS may reduce

^{145.} There may also be competition between insurance pools to increase cost-sharing burdens, so that higher-risk individuals opt out of pools with higher burdens into those with lower burdens. See Amy Monahan & Daniel Schwarcz, Will Employers Undermine Health Care Reform by Dumping Sick Employees?, 97 VA. L. REV. 125, 164 (2011).

^{146.} See Cohen & Uberoi, *supra* note 77, at 8 fig.5 (showing that in private insurance pools, 63% of costs are incurred by the top 10% of spenders, and that they spend \$21,939 on average); *see also* Cohen & Yu, *supra* note 8 (providing population-level averages).

^{147.} Krugman & Wells, *supra* note 127, at 1045; *see also* Feldstein & Gruber, *supra* note 116, at 109 (explaining the impact of their scaling proposal, since it applies in this domain).

^{148.} See Cohen & Uberoi, supra note 77, at 8 fig.5 (discussed supra in note 146); id. at 9 fig.7 (showing similar distributions of highly concentrated spending across income quintiles).

health spending on net, although such behavioral dynamics are ultimately empirical questions that can only be asserted tentatively here. 149

There are also empirical questions about the effects of reducing cost-sharing burdens for lower-paid workers. O'Brien has reviewed "a burgeoning 'health and productivity management' literature [and] argues that the value of health coverage far exceeds its direct costs to employers." Recent empirical research has shown that when cost-sharing burdens are so onerous to lower-paid workers as to reduce access to healthcare, it reduces their productivity. For example, Dizioli and Pinheiro found that a worker with health coverage misses on average 52% fewer workdays than an uninsured worker. Other work suggests that underinsured individuals behave as if they were uninsured. Speaking more directly to cost-sharing, Gibson, Fendrick, and Chernew found that for a \$5 increase in copayment for a pain management drug, the employer may lose \$31–\$42 in absence-related costs. Other recent empirical studies suggest that for poorer and chronically ill beneficiaries, cost-sharing burdens may actually increase aggregate healthcare spending by causing those with chronic illnesses to be hospitalized more often, rather than appropriately managing their illnesses.

SCS may incidentally address medical literacy and wherewithal. The consumer-directed healthcare movement has been rightly criticized for depending on laypersons to make very complicated decisions about whether to accept or decline healthcare. ¹⁵⁵ As it happens, wages are a good (but imperfect) proxy for education, intelligence, ¹⁵⁶ and access to social resources that can support medical decision making. SCS puts more responsibility for making rationing choices on those that may have the best wherewithal to perform that role successfully.

New scientific evidence suggests that financial stress actually impedes

^{149.} Swartz, *supra* note 9, at 10 ("Little is known from recent studies about the impact of increased patient cost-sharing on total spending.").

^{150.} Ellen O'Brien, Employers' Benefits from Workers' Health Insurance, 81 MILLBANK Q. 5, 7 (2003) (internal citations omitted).

^{151.} See Allan Dizioli & Roberto B. Pinheiro, Health Insurance as a Productive Factor (June 1, 2012), http://ssrn.com/abstract=2096415.

^{152.} See supra notes 52-59.

^{153.} Teresa B. Gibson, A. Mark Fendrick & Michael E. Chernew, *Cost-Sharing and Productivity* 16 (Nat'l Bureau of Econ. Research, Working Paper No. 18402, 2012).

^{154.} Amitabh Chandra et al., Patient Cost-Sharing and Hospitalization Offsets in the Elderly, 100 Am. Econ. Rev. 193 (2010). But see Bikaramjit S. Mann et al., Association Between Drug Insurance Cost Sharing Strategies and Outcomes in Patients with Chronic Diseases: A Systematic Review, 9 PLOS ONE e89168, at 1 (2014) (reviewing the literature and finding that "the association between patient copayments and medication adherence varied across studies, ranging from no difference to significantly lower adherence, depending on the amount of the copayment.").

^{155.} See, e.g., Bloche, supra note 52 (raising such a criticism).

^{156.} See Stephen J. Ceci & Wendy M. Williams, Schooling, Intelligence, and Income, 52 AM. PSYCHOLOGIST 1051 (1997) (finding a high correlation between these three variables).

cognitive performance, ¹⁵⁷ and may thereby undermine poorer patients' ability to perform the complicated cost-benefit tradeoffs that are necessary to self-ration in a domain characterized by scientific uncertainty and value judgments about risk and reward. Lab experiments with induced financial stress have found substantial effects, akin to the effects of a full night of sleep deprivation, chronic alcoholism, or a 13-point decrease in IQ. ¹⁵⁸ Thus, SCS may enhance productivity and the rationality of health spending.

Notwithstanding these suggestions that lower-paid workers may make bad rationing decisions, other strategies exist to reduce health spending by lower-paid employees who end up in Zone 3 after surpassing their reduced cost-sharing limits. In addition to traditional managed care solutions, one possibility is the "split benefit" concept, which aims to disincentivize expensive, low-value care. ¹⁵⁹

In sum, SCS is unlikely to harm the profits of employers. Instead, proportional scaling upwards and downwards from the median would actually reduce insurance costs by allocating more risk overall to workers. This may reduce healthcare consumption in the aggregate, while nonetheless delivering greater health value for workers and the firm.

If an employer is particularly averse to the risk that SCS may backfire and actually increase health insurance premiums on net, it could tentatively begin to use SCS by only scaling upwards. Or, an employer could scale in both directions from the median, but rather than using a linear scaling (say 6% of wages), the employer could use an exponential or cubic scaling, or a tiered scaling that approximates one of those scaling methods. Given the diminishing marginal utility of money, an employee earning \$200,000 per year can probably bear much more than 6% of that income in health expenditure risk. A related method would be to exempt an initial amount of wages paid (say \$25,000) and then impose a larger linear scaling thereafter (say 12% of income). That mode may retain a sense of fairness and simplicity, while again allowing a more aggressive upward scaling. Thus, it seems indisputable that SCS can be implemented in a way that reduces aggregate health spending, which in turn serves the interests of shareholders.

^{157.} Anandi Mani et al., Poverty Impedes Cognitive Function, 341 SCIENCE 976 (2013).

^{158.} Id. at 980.

^{159.} See generally Robertson, supra note 76 (proposing that insurers could pay a small portion of the insurance benefit directly to beneficiaries, which would thus create an opportunity cost for consumption of healthcare services; if beneficiaries decline to consume, the insurer saves the remainder of the insurance benefit, which otherwise would have been paid to the provider, as under the status quo).

^{160.} Such a modification of the proposal begins to seem complicated, but the progressive tiers in the tax code provide precedent.

III. THE OBSTACLES AND OPPORTUNITIES FOR REFORM

One may well ask: if SCS is really such a good idea, why aren't rational employers already using it? One potential explanation is that only within the last decade have healthcare providers and insurers been linked by information technology systems that would allow insurers to customize the cost-sharing burdens for each individual patient (or tier of patients), as SCS requires. 161 Still, in the 1970s, the RAND Health Insurance Experiment proved the feasibility of scaling, and some firms were using it in the 1980s. 162 So, while SCS is clearly possible, there are four sets of market failures and legal problems: (a) legal proscriptions, business practices, and cognitive limits that make the employersponsored market unlike an individual market for health insurance, where individuals would choose their cost-sharing levels; (b) the per capita caps on cost-sharing in the essential coverage provisions of the Affordable Care Act; (c) the agency and collective action problems under a distorting tax code; and (d) an anti-discrimination provision in employee benefits law. Closer analysis reveals that the problems can be solved, and that the anti-discrimination provision actually provides a lever for policymakers to mandate scaling under current law.

A. Difficulties with Individual Choice

If SCS is a more efficient form of insurance, why are employees not simply choosing health insurance plans that provide the appropriate level of cost-sharing? If lower-paid employees selected plans with lower cost-sharing burdens, a firm could approximate SCS across multiple plans. The experience with the minority of employers that have offered high-deductible health plans (HDHPs) alongside normal health plans has been promising in this regard. The HDHPs have disproportionately tended to attract the higher-paid employees.

There are several impediments to achieving the efficient matching of costsharing levels to beneficiaries through self-selection. The most fundamental

^{161.} See generally Paul Starr, Smart Technology, Stunted Policy: Developing Health Information Networks, 16 HEALTH AFF. 91, 92 (1997) ("While individual enterprises are building information networks, community networks serving public purposes have lagged. An information revolution in health care is the making, but the hope that it will allow consumers and providers to make smarter choices is still far from being realized.").

^{162.} See supra text accompanying note 123.

^{163.} As of 2012, about a third (31%) of firms offered HDHPs. Employer Health Benefits 2012, supra note 6, at 63.

^{164.} See Melinda B. Buntin et al., Consumer-Directed Health Care: Early Evidence About Effects on Cost and Quality, 25 HEALTH AFF. w516, w519 (2006) (reviewing the earlier literature and finding that the participants in high-deductible plans "have higher incomes than those in other plans").

problem with any choice-based mechanism for insurance is adverse selection. ¹⁶⁵ The evidence already shows that the sickest employees tend to prefer the plans with the lowest cost-sharing burdens. ¹⁶⁶ One of the advantages of employer-based insurance is that it operates within a pool of individuals clustered for non-health reasons. An attempt to instead cause each individual to select more or less insurance based on their private information about their own health needs defeats this purpose, "subdivid[ing] the population into discrete risk categories, which may adversely affect the future stability of the insurance plan options." ¹⁶⁷

Second, accordingly, "companies have long stressed that [employer-sponsored insurance] is a group benefit, and even self-insured firms are loathe [sic] to break the grouping bonds by setting employee shares of premiums that are highly tailored to individual workers' characteristics." ¹⁶⁸ Part of the problem is epistemic. It is very difficult for the insurer to make an individualized assessment of risk and, by extension, actuarial cost. ¹⁶⁹ The law reinforces this norm, prohibiting individual risk rating according to each individual's health. ¹⁷⁰ These norms make employer-sponsored health insurance different from car insurance, which is individually rated and allows consumers to choose their own cost-sharing profiles. ¹⁷¹ Instead, large group insurance plans are priced

^{165.} See Kenneth S. Abraham, Distributing Risk: Insurance, Legal Theory, and Public Policy 15 (1986).

^{166.} See Buntin et al., supra note 164, at w519 ("Those in CDHC also appear to be in somewhat better health."); James M. Naessens et al., Effect of Premium, Copayments, and Health Status on the Choice of Health Plans, 46 Med. Care 1033 (2008) (finding that co-morbidities were associated with choice of high-premium, low-cost-sharing plans); Wynand P.M.M. Van de Ven & Bernard M.S. Van Praag, The Demand for Deductibles in Private Health Insurance, 17 J. ECONOMETRICS 229 (1981) (finding that adverse selection on health was a stronger determinant of plan choice than income).

^{167.} Naessens et al., supra note 166, at 1033.

^{168.} Swartz, *supra* note 4, at 113 n.5; *see also* Havighurst & Richman, *supra* note 95, at 45 (describing the "heroic" assumptions that would be required for employers to adjust wages based on the cost of insuring each individual); O'Brien, *supra* note 150, at 12 (similar).

^{169.} See Daniel Halperin, Comment by Daniel Halperin, in USING TAXES TO REFORM HEALTH INSURANCE: PITFALLS AND PROMISES 57, 57 (Henry J. Aaron & Leonard E. Burman eds., 2008) (explaining that the original IRS decision to exempt health insurance from taxable wages was made in part because the IRS "felt that it was difficult to allocate the costs of health insurance to individual employees").

^{170.} See infra Section III.D (discussing anti-discrimination provisions). See in particular 29 U.S.C.A. § 1182(b)(1) (West 2014) ("A group health plan . . . may not require any individual . . . to pay a premium or contribution which is greater than such premium or contribution for a similarly situated individual enrolled in the plan on the basis of any health status-related factor").

^{171.} Even in these domains, achievement of scaling through self-selection may be unlikely. See generally Stephen Brobeck & J. Robert Hunter, Lower-Income Households and the Auto Insurance Marketplace: Challenges and Opportunities, Consumer Fed'n Am. (Jan. 30, 2012), http://www.consumerfed.org/news/450 ("A variety of sources report that many LMI [low- and middle-income] households typically purchase only the minimum liability coverage with the highest possible deductible.").

collectively, which is known as "community rating," and there is little or no individual choice of plans, much less choices that isolate the cost-sharing variable. ¹⁷² In one third of firms, the employer pays 100% of the premiums. ¹⁷³ On average, employers pay 82% of the premiums on behalf of their workers. ¹⁷⁴ This subsidy undermines the incentive for workers to take on as much risk as they can bear. SCS should not depend on unraveling this knot.

Third, in order to encourage highly paid workers to choose higher cost-sharing, firms would have to give them a financial incentive to do so, but this may be difficult. The may be feasible for a firm to give raises to employees who took on more risk, but social norms, legal rules, and collective bargaining agreements may make it infeasible to lower the take-home wages paid to employees who are already below the median. Thus, an incentive-driven, choice-based mechanism might be more costly on net.

Fourth, the behavioral economics literature suggests that choice is no panacea; it may sometimes overwhelm the capacities of decision makers. Prior work has shown that individuals have difficulty estimating the payments they will actually bear under health insurance cost-sharing systems. ¹⁷⁷ In one study, "[o]nly 14% of the sample was able to answer correctly 4 multiple choice questions about the four basic components of traditional health insurance design: deductibles, copays, coinsurance and maximum out of pocket costs." ¹⁷⁸ In

^{172.} See Hoffman, Oil and Water, supra note 89, at 49 (discussing the long history of community rating and the concept of risk pooling). There is also some evidence that higher-paid employees already consume more health care services, which might make individualized pricing backfire for the higher-paid worker. See Havighurst & Richman, supra note 95, at 42 & n.103; Employer Health Benefits 2012, supra note 6, at 60 ("Most firms that offer health benefits offer only one type of health plan (82%) . . . [but] over half (52%) of covered workers are employed in a firm that offers more than one health plan type.").

^{173.} Employer Health Benefits 2012, supra note 6, at 88.

^{174.} Id. at 72.

^{175.} See Alain C. Enthoven, The Fortune 500 Model for Health Care: Is Now the Time to Change?, 27 J. HEALTH POL. POL'Y & L. 37 (2002); Havighurst & Richman, supra note 95, at 46–47 ("[1]n the great majority of instances, the employer pays more for those who choose costlier options—rather than . . . making them pay the full additional cost. . . . [T]hose choosing the cheaper package are indirectly bearing some of the costs incurred by those who choose (and get) more costly care." (footnote omitted)); Herzlinger & Schwartz, supra note 120, at 75 (describing PepsiCo's efforts to reform its subsidy to guide patients away from a high-cost plan).

^{176.} See Richard Thaler, Mental Accounting and Consumer Choice, 4 MARKETING Sci. 199 (1985) (losses are viewed as worse than gains); see also Payers Refine Cost-Sharing Techniques to Target Patient Behavior, Treatment Choices, supra note 123 (discussing a "20/20 ogre test" where a firm that imposes onerous cost-sharing on poorer workers may suffer public relations problems); infra text accompanying note 273.

^{177.} M. Susan Marquis, Consumers' Knowledge About Their Health Insurance Coverage, 5 HEALTH CARE FIN. REV. 65 (1983).

^{178.} George Loewenstein et al., Consumers' Misunderstanding of Health Insurance, 32 J. HEALTH ECON. 850, 858 (2013).

another study, only one third of respondents successfully chose the plan that would minimize their total costs.¹⁷⁹ Individuals are also likely optimistic, and thus underestimate their risk of experiencing large costs.¹⁸⁰ Individuals tended to insure against "high-probability low-loss hazards"; they seemed to have a "disinclination to worry about low-probability hazards," which may nonetheless be catastrophic.¹⁸¹ More particularly, if presented with a full menu of options with varying premium and cost-sharing levels (which tend to be inversely related), poorer employees may focus more on the former, since that is the immediate, definite, and more salient factor.¹⁸² The premium "price is simple to evaluate, while other characteristics such as deductible and coinsurance are harder to evaluate and trade off against each other."¹⁸³ Here again, SCS should not depend on heroic improvements in cognitive capacity.

These four reasons may explain why a choice-based system for cost-sharing levels has not emerged in the group insurance market. They also explain why insurance designers may rationally prefer to avoid instituting a choice-based system for cost-sharing burdens. Instead, firms may prefer to simply apply SCS to whatever plan employees may otherwise have.

Alternatively, if a choice-based mechanism is employed, insurance designers should consider using default rules or other mechanisms to nudge individuals towards appropriately scaled policies. One possibility would be to have an automatic scaling of cost-sharing according to wages, but allow higher-paid workers to purchase supplemental insurance policies to offset some or all of their increased cost-sharing burdens. Aside from the primary risk-protection goal of insurance, there is admittedly luxury value in being able to consume healthcare without concern for cost. ¹⁸⁴ Primary insurers should, nonetheless, require that such policies be purchased directly from them, so that the primary insurer can price into those policy premiums the stimulation in consumption that will likely

^{179.} F. Heiss et al., Who Failed to Enroll in Medicare Part D, and Why? Early Results, 25 HEALTH AFF. 344 (2006).

^{180.} See Christine Jolls, Behavioral Economics Analysis of Redistributive Legal Rules, 51 VAND. L. REV. 1653, 1659 (1998) (describing this "amazingly robust finding" in social science).

^{181.} Howard Kunreuther & Paul Slovic, *Economics, Psychology, and Protective Behavior*, 68 Am. Econ. Rev. 64, 67 (1978).

^{182.} See generally Keith Marzilli Ericson & Amanda Starc, Heuristics and Heterogeneity in Health Insurance Exchanges: Evidence from the Massachusetts Connector, 102 Am. Econ. Rev. 493, 494 (2012) (observing that "approximately 20 percent of enrollees choose the cheapest plan available to them").

^{183.} Id. at 494. But see Eric J. Johnson et al., Can Consumers Make Affordable Care Affordable? The Value of Choice Architecture, 8 PLOS ONE e81521278 (2013) (finding that consumers overweight OOP burdens when choosing plans).

^{184.} Richard Thaler, *Toward a Positive Theory of Consumer Choice*, 1 J. ECON. BEHAV. & ORG. 39, 53 (1980) (comparing insurance purchasing decisions to an all-inclusive resort, like Club Med).

occur. ¹⁸⁵ Otherwise, supplemental insurance creates a severe externality problem. For those that are already adequately insured, those supplemental policies should also not benefit from the tax-preference discussed below, since they do not primarily serve the purposes of risk protection. ¹⁸⁶

B. Caps on Cost-Sharing in the Affordable Care Act

One potential legal impediment to SCS is that the Affordable Care Act actually limits maximum cost-sharing burdens. The Act provides that, for individual and small group insurance purchased in the exchanges and for employer-based group health plans, an "essential health benefits package" must cover certain sorts of care and "limit cost-sharing for such coverage" in ways further specified by the tax code. ¹⁸⁷ The relevant tax code section pertains to "high deductible health plans," which are allowed to have, at most, an annual maximum of all cost-sharing burdens of \$6,250 for individuals and \$12,500 for families. ¹⁸⁸ Unlike many other regulations, these federal requirements will apply even to the self-insured employers, which cover about 60% of American workers. ¹⁸⁹

^{185.} Although Medicare has found it politically infeasible to limit supplemental insurance in this way, private insurers could presumably use their contracts to do so. See Cabral & Mahoney, supra note 70 (documenting the demand stimulation in Medicare supplemental insurance policies). The demand stimulation would depend in part on the form of supplemental insurance. See Jay Hancock, Health Insurance Industry Touts Supplemental Policies to Cover Medical Costs, WASH. Post, Feb. 5, 2014, http://www.washingtonpost.com/business/economy/health-insurance-industry-markets-supplemental-policies-to-cover-medical-costs/2014/02/05/f57eb606-8d25-11e3-95dd-36ff657a4dae_story.html (showing that some supplemental insurance is sold in the form of indemnities linked to particular diseases; such payments are thus fungible and retain the opportunity cost function of cost-sharing).

^{186.} See infra Section III.C.

^{187.} See 42 U.S.C.A. § 18022(a)(2) (West 2014). The applicability of the cost-sharing maximums to large employer-sponsored groups has other statutory bases. See Patient Protection and Affordable Care Act; Standards Related to Essential Health Benefits, Actuarial Value, and Accreditation, 77 Fed. Reg. 70644, 70644 (proposed Nov. 26, 2012) (to be codified at 45 C.F.R. pts. 147, 155, 156).

^{188. 26} U.S.C.A. § 223(c)(2) (West 2014); see 45 C.F.R. 156.130(a)(i) (2013); see also Patient Protection and Affordable Care Act; Standards Related to Essential Health Benefits, Actuarial Value, and Accreditation, 78 Fed. Reg. 12834, 12847 (Feb. 25, 2013) (to be codified at 45 C.F.R. pts. 147, 155, 156) (providing the \$6,250 and \$12,500 amounts as an illustration for 2013).

^{189.} See 78 Fed. Reg. at 12837 (providing that the cap on cost-sharing maximums will apply to self-insured plans); Monahan & Schwarcz, supra note 145, at 147 (discussing 42 U.S.C. § 300gg-13). Still, these limitations do not apply to "grandfathered" plans, which are employer-based plans that predate March 23, 2010, unless the plans change significantly. See Public Health Service Act § 2707(b), 42 U.S.C.A. §300gg-6(b) (West 2014). It is possible that employers who implemented SCS could risk losing grandfathered status, since this would increase costs to some enrollees (while decreasing costs to others). Stephen J. Mogila & Daniel L. Saperstein, The U.S. Supreme Court Upholds the Health Care Reform Law: What's Next for Employer-Sponsored

It is hard to imagine why the ACA needs to protect those in the top quintile, who earn at least \$182,000 per year, from paying \$6,250 or more in health expenditures. Employers may be tempted to challenge this cap in court, but such a challenge would fail. As Justice Thurgood Marshall once said, "the Constitution does not prohibit legislatures from enacting stupid laws." 191

Still, the executive and legislative branches should be loath to apply the law to reach such a conclusion. Accordingly, a health plan could seek a waiver to allow SCS. Alternatively, regulators could issue interpretive guidelines to create a safe harbor for non-enforcement, as long as the cost-sharing maximums were met for median employees. ¹⁹² The statutory text may be helpful in that it refers to the health "plan" as having a cost-sharing maximum, rather than stipulating that the highest individual member must have that maximum. ¹⁹³ Such an executive interpretation of this text could allow scaling using the median point as a fulcrum, which would be entitled to deference by the Judiciary. ¹⁹⁴

Ultimately, Congress should change this law to explicitly allow cost-sharing with upwards scaling, as long as insurance performs its functions across the income spectrum. If Congress did act, it could replace the per-head cap on cost-sharing with an income-scaled cap. Similarly, the Affordable Care Act already

Group Health Plans?, 40 HOFSTRA L. REV. 859, 871 (2012) (recommending against cost-sharing hikes). Grandfathered employers could argue that SCS resulted in no change on the aggregate, however. Regardless, only "about one quarter of organizations remain grandfathered and, of those, less than half expect to keep their grandfathered status beyond the next two years." 2013 Employer-Sponsored Health Care: ACA's Impact – Survey Results, INT'L FOUND. EMPLOYEE BENEFIT PLANS 3 (2013) [hereinafter "IFEBP"], http://www.ifebp.org/pdf/research/2103ACAImpactSurvey.pdf.

190. For a case dealing with a similar sort of statute that has a rational basis for one group (low-paid workers) but not another, see *Doe v. Mich. Dep't of State Police*, 490 F.3d 491, 501 (6th Cir. 2007) ("Although we believe that the State's justification sweeps too broadly, especially with reference to the plaintiffs in the present case, we are constrained to conclude that the rationale articulated in the statute itself satisfies the rational-basis standard."). *See also* F.C.C. v. Beach Commc'ns, Inc. 508 U.S. 307 (1993) (stating the rule).

191. N.Y. State Bd. of Elec. v. Lopez Torres, 552 U.S. 196 (2008) (Stevens, J., concurring) (quoting Justice Marshall).

192. See Newland v. Sebelius, 881 F. Supp. 2d 1287, 1298 (D. Colo. 2012) (explaining that the Obama administration "has exempted over 190 million health plan participants and beneficiaries from the preventive care coverage mandate" of the Affordable Care Act). Although they raise thorny constitutional and statutory issues (e.g., in the Administrative Procedure Act), such exercises of executive discretion are exceedingly common. See generally David J. Barron & Todd D. Rakoff, In Defense of Big Waiver, 113 COLUM. L. REV. 265, 273–74 (2013); Frank J. Thompson & Courtney Burke, Executive Federalism and Medicaid Demonstration Waivers: Implications for Policy and Democratic Process, 32 J. HEALTH POL. POL'Y & L. 971 (2007).

193. See 26 U.S.C.A. § 223(c)(2) (West 2014). Furthermore, the cap statute should be read in light of Congress's decision to also expand the nondiscrimination rule in health insurance, and the argument below that a per-capita cap violates that rule. See infra Section III.D.

194. Whether such executive policymaking would be entitled to *Chevron*, or a lower level of deference, is reserved for another day. *See* United States v. Mead Corp., 533 U.S. 218 (2001) (discussing the applicability of these standards).

imposes a cap on the employee's required contribution to premiums at 9.5% of household income. ¹⁹⁵ If, for example, such a national cap on cost-sharing burdens were set at 6% of each worker's wages, it would more accurately approximate individual worker's abilities to pay compared to a policy in which each firm scaled on its own median wage (the running example used herein).

One might also ask whether such a ceiling on cost-sharing should be complemented by a floor as well. As long as employer-sponsored health insurance continues to be tax-favored (as discussed in Section III.B below), such a minimum level of cost-sharing (a maximum of exempted insurance) might be worthwhile, to raise revenues and minimize the distortion that presently exists under the tax code.

Even without executive or congressional reform, it would be possible for employers to implement scaling underneath the ACA's cap. Currently, 32% of health plans cap maximum OOP burdens at less than \$2,000 for individuals, and another 27% cap at between \$2,000 and \$3,000. 196 These firms could double or triple the cost-sharing burdens of their highest-paid workers. Only 2% of plans are already bumping up against the \$6,250 cap. 197 The remaining 98% of those covered by a cap could implement some scaling, and there is even greater opportunity for scaling within family coverage. 198

There is also more potential for scaling the size of the deductible at the threshold between Zone 1 and Zone 2 for the majority of large employers because the ACA happens to have a gap that does not apply there. ¹⁹⁹ The ACA also does not regulate the particular cost-sharing modalities in Zone 2, which allows insurers to impose higher copays and coinsurance on higher-paid employees. ²⁰⁰

Ultimately, employers enjoy discretion under current law to use SCS. They can do much better than they now do.

C. Tax Distortions, Agency, and Collective Action

Agency and collective action problems might also explain why firms have not yet adopted SCS on their own. Normatively, a firm's managers are supposed to be the "agents" of the stockholders, which suggests that they should favor SCS

^{195. 26} U.S.C.A. § 36B(c)(2)(C)(i)(II) (West 2014).

^{196.} Employer Health Benefits 2012, supra note 6, at 127 exhibit 7.31 ("all plans" row).

^{197.} Id. (showing that 2% of plans have out-of-pocket maximums of \$6,000 or more).

^{198.} For families, the cap is \$12,500, and the common family plans are not twice as high as the common individual plans. *Id*.

^{199.} Maximums on the deductible "do not apply to self-insured plans or health insurance issuers offering health insurance coverage in the large group market." 77 Fed. Reg. 70646–47 (Nov. 26, 2012).

^{200.} See supra text accompanying note 23 (defining the cost-sharing zones).

according to the efficiency analysis in Section II.C. ²⁰¹ However, the managers responsible for designing the firm's insurance plan are likely paid more than the median worker. Thus, the managers may have a personal preference for non-scaled insurance. ²⁰² Even aside from this agency problem, the managers may simply have greater concern for the cost-sharing burdens faced by the highly compensated workers because they are more valuable to the firm. ²⁰³

This dynamic can be seen in the related context of income-scaled premiums. One benefits director has explained that "the hardest part . . . is getting upper management to agree to this system." Although she does not explicitly identify an agency problem, she explains that her firm was successful in instituting income-scaled premiums because the upper-management happened to be altruistic: "Luckily we have a management team that believes this is the right thing to do." Unlike tiered premiums, SCS may reduce the total cost of insurance by improving productivity and changing consumption behavior. Accordingly, rational shareholders may be indifferent to tiered premiums while demanding SCS.

Employers provide insurance to workers in lieu of additional wages.²⁰⁶ For each worker, the optimal amount of insurance (versus cost-sharing, the lack of insurance) is a function of how painful it would be to face an uninsured loss, compared to the cost of insuring that loss, including the administrative loads and wasteful aspects of insurance. "In effect, where losses do not do that much harm, it is more efficient to avoid paying the insurer for administrative expenses to cover it."²⁰⁷ Accordingly, if highly paid workers could be given an actuarially

^{201.} See generally Lucian A. Bebchuk & Jesse M. Fried, Executive Compensation as an Agency Problem, 17 J. ECON. PERSP. 71 (2003).

^{202.} See Rice & Thorpe, supra note 121, at 25 ("[F]irms' decisionmakers, who have the highest incomes, would have the most to lose personally from the implementation of such a system."). More generally, scholars have identified a similar bias in "the legal and regulatory environment of U.S. healthcare [which] has been structured according to the perceptions and preferences of these same elites." Havighurst & Richman, supra note 124, at 7.

^{203.} See David Hyman & Mark Hall, Two Cheers for Employment-Based Health Insurance, 2 YALE J. HEALTH POL'Y L. & ETHICS 23, 27 (2001) ("An employer may care greatly about conditions that affect its most highly valued employees, but show less consideration for conditions that disproportionately affect employees who are fungible, or work in a division slated for sale or closure.").

^{204.} Medland, *supra* note 115, at 96 (quoting a director of benefits for the Biltmore Company).

^{205.} *Id.* ("Introducing tiered premiums can generate considerable resistance. Higher compensated employees sometimes argue that it's inequitable to subsidize lower-paid workers' health costs.... [A benefits broker] explains:... 'They argue that everyone gets the same vacation and sick time, so why should this be different?"").

^{206.} O'Brien, *supra* note 150, at 5 (describing this as the "standard economic theory"). *See also supra* note 2 (listing sources that discuss the employer mandate and show the longstanding practice of employers providing health insurance).

^{207.} Mark V. Pauly, Optimal Health Insurance, 25 GENEVA PAPERS ON RISK & INS., 116, 116-

fair increase in wages to compensate for that risk, they should be happy to split with their employers the efficiency gain (a bargaining surplus) that comes with SCS. The problem is that the wage substitution (premium) for insurance is typically not tailored to individual workers, and we have already reviewed four reasons why it would be difficult for employers to begin doing so.²⁰⁸

In addition, for higher-paid workers, the current tax code discourages the otherwise-rational substitution of increased wages for decreased insurance. Federal law allows employers to deduct amounts paid for employer-provided health insurance, and employees are not taxed on the value of the insurance received. 209 Because the amounts the employer uses to purchase the insurance are not considered part of "wages," they are exempt from payroll taxes at both the employer and employee levels.²¹⁰ The tax subsidy "gives employers and employees the joint incentive to choose low-deductible, low-coinsurance health plans over plans that involve more cost sharing."211 Because the tax code is progressive, charging higher rates for higher levels of income, the effective subsidy for insurance over wages is more pronounced for higher-paid workers, ironically giving them even more reason to opt for comprehensive insurance coverage rather than healthcare consumption through out-of-pocket spending. This progressivity results in a "scalar distortion," creating incentives and imposing costs that are contrary to optimal cost-sharing scaling. Meanwhile, the federal government spends about \$247 billion a year in foregone revenues to achieve this inefficiency. 212

Over the last few decades, federal law has tried to reduce these distortions by creating various special accounts, which allow some tax-preferred healthcare spending.²¹³ In the 18% of firms that have adopted such policies, well-paid employees could avoid taxation on the bargaining surplus achieved by SCS by putting additional wages in tax-preferred accounts.²¹⁴ These accounts are not

^{17 (2000) (}describing risk aversion in terms of diminishing marginal utility, but not discussing heterogeneity of wealth).

^{208.} See supra Section III.A.

^{209.} See 26 U.S.C. §§ 105, 106, 162 (2006) (discussing these provisions); see also Joseph Bankman et al., Reforming the Tax Preference for Employer Health Insurance, 26 TAX POL. ECON. 43, 43 (2012).

^{210. 26} U.S.C. § 3121 (2006). See Bankman, supra note 209, at 43.

^{211.} Bankman, *supra* note 207, at 44 (citing 26 U.S.C. § 213); *see also* Martin S. Feldstein, *The Welfare Loss of Excess Health Insurance*, 81 J. Pol. Econ. 251, 255 (1973) (showing that tax subsidies of employer-based insurance create overinsurance).

^{212.} See Bankman, supra note 209, at 43 (citing Joint Committee on Taxation).

^{213.} See generally John F. Cogan, R. Glenn Hubbard & Daniel P. Kessler, Evaluating Effects of Tax Preferences on Health Care Spending and Federal Revenues, 21 TAX POL. ECON. 65 (2006) (discussing these accounts).

^{214.} Employer Health Benefits 2012, supra note 6, at 202 (showing 17% of small firms, 76% of large firms, and 18% overall offering flexible spending accounts to their workers).

complete solutions for the tax distortion, however. These special accounts reduce the perceived fungibility, and sometimes the actual fungibility, of the set-aside money, thereby undermining its value as compensation and as an opportunity cost for health spending.²¹⁵

The ACA also imposed an excise tax on expensive insurance plans.²¹⁶ The tax comes into effect in 2018, and about 17% of employers are currently redesigning their health plans to avoid the surcharge.²¹⁷ They would do well to incorporate SCS into their revised benefit plans, since it is likely to reduce overall insurance costs.²¹⁸

Of course, Congress could simply repeal the tax preference for insurance over OOP spending, which would remove the economic distortion and raise revenue. A narrower solution to facilitate SCS would be for Congress to make tax exemption for employer-sponsored health insurance contingent on a scaled cost-sharing design, thereby incentivizing voluntary reform of plan payment structures. That reform could be revenue-neutral if employers changed their behaviors accordingly. As shown below, there may be a way to achieve this outcome under current law.

Nonetheless, in the short run, adjustments in take-home pay may not offset adjustments to cost-sharing. Thus, in addition to the agency problem involving high-paid workers choosing unscaled health plans for the firm, employers who sought to implement SCS would suffer from a collective action problem. Each company seeks to recruit the most talented managers and technical experts, and no employer wants to be the first one to offer a health insurance plan that exposes the worker to ten times as much risk, as well as exposure to taxable health spending, as the plans offered by competing firms. This story may explain why

^{215.} See Health Savings Accounts and Other Tax-Favored Health Plans, IRS (Publication No. 969, 2013), http://www.irs.gov/pub/irs-pdf/p969.pdf (describing the 20% tax penalty for withdrawals when not used for qualified medical expenses, and describing how flexible spending account balances cannot be carried over to subsequent years); Laura A. Tollen et al., Risk Segmentation Related to the Offering of a Consumer-Directed Health Plan: A Case Study of Humana Inc., 39 HEALTH SERVS. RES. 1167, 1186 (2004) (describing section 125 flexible spending accounts: "Lack of fungibility may thus have the perverse effect of encouraging greater consumption of services than would otherwise have taken place."); see also Chelsea Helion & Thomas Gilovich, Gift Cards and Mental Accounting: Green-Lighting Hedonic Spending, 27 J. BEHAV. DECISION MAKING (forthcoming 2014) (finding that "when individuals are given money in the form of a gift card—even one that they earned themselves—they . . . were more likely to purchase hedonic items with their gift cards than with [cash].").

^{216. 26} U.S.C.A. § 4980I (West 2014).

^{217.} IFEBP, supra note 189, at 3.

^{218.} See supra Section II.C.

^{219.} Another overt solution would be for Congress to provide progressive, refundable tax credits for OOP spending. *See* Bankman, *supra* note 209, for such a proposal. That reform would maintain a preference for health spending over other spending, but would make well-paid workers indifferent to health spending OOP versus through insurance.

SCS has not yet been adopted, and may motivate legal intervention in this failing market.

D. The Anti-Discrimination Mandate

According to leading health economists, "US law requires that the same health insurance plan be offered by an employer to all employees irrespective of the amount the employee is paid." Such a characterization of the law suggests that using the "amount the employee is paid" to scale cost-sharing burdens could be illegal. Other leading commentators have made similar claims about federal law, which insurance designers may interpret to proscribe SCS. 221

I posit that these interpretations are incorrect. Of course, well-paid workers are not a suspect class like "race, religion, sex, or national origin," which receive special protection under the law. Since women and minorities often earn less than white men, one could not even make the argument that SCS indirectly discriminates against them. Instead, it would favor them incidentally. The ACA also prohibits discrimination based on health status. Although sicker individuals tend to pay more in cost-sharing burdens, this fact has never been understood to make cost-sharing illegal. Regardless, the point is irrelevant to wage scaling in particular.

Discrimination in employment benefits based on compensation is regulated.²²⁵ For health coverage to be non-taxable for self-insured employers,

^{220.} Sloan & Hsieh, supra note 118, at 144.

^{221.} See, e.g., Swartz, supra note 4, at 84 ("[H]ealth insurance is a product that cannot be purchased in small incremental amounts, and employers cannot set up different combinations of wages and health benefits among different employees. Current laws require that employers who offer a fringe benefit must offer the same benefit to all employees; they cannot distinguish among classes of employees by offering different versions of a benefit to different sets of workers."); see also Hoffman, supra note 1, at 1885 (stating that "employers must offer insurance on the same terms to all employees," but showing in the footnote that the anti-discrimination rule is limited to health status).

^{222.} Ariz. Governing Comm. for Tax Deferred Annuity & Deferred Comp. Plans v. Norris, 463 U.S. 1073, 1080 (1983). For a review of the many overlapping non-discrimination statutes, see Peter M. Panken et al., *Litigating Claims of Discrimination in Employee Benefits*, in ERISA LITIGATION 453, 460–69 (ALI-ABA Course of Study Materials: ERISA Litig., 2004). ERISA also incorporates the HIPAA proscription on discriminating based on health status. *See* 29 U.S.C. § 1182 (2006).

^{223.} See DeNavas-Walt et al., supra note 39, at 5 (gender); id. at 8 (race).

^{224.} See generally Jessica L. Roberts, "Healthism": A Critique of the Antidiscrimination Approach to Health Insurance and Health-Care Reform, 2012 U. ILL. L. REV. 1159 (2012).

^{225.} See, e.g., 26 U.S.C.A. § 401(a)(4) (West 2014) (definition of a qualified pension plan, requiring that "benefits provided under the plan do not discriminate in favor of highly compensated employees"). See generally Peter J. Wiedenbeck, Nondiscrimination in Employee Benefits: False Starts and Future Trends, 52 TENN. L. REV. 167 (1985) (discussing the history and purposes of these provisions); Joseph Bankman, Tax Policy and Retirement Income: Are Pension Plan Anti-

"the benefits provided under the plan do not discriminate in favor of participants who are highly compensated individuals." The ACA imposed that requirement on non-self-insured health plans as well. If these employers fail to comply, they may be sanctioned with excise taxes, civil monetary penalties (of \$100 per day per worker), and civil actions leading to injunctions and equitable relief. The IRS has not yet issued guidance on how this provision will be applied and has also delayed enforcement.

When it does come into effect, will the non-discrimination rule be problematic for SCS? Analytically, cost-sharing is not an employment benefit; it is the absence of insurance, which is the benefit. So the question is whether the discrimination rule would prohibit employers from giving more insurance to lower-paid workers. Even if that were discrimination, SCS would not be "in favor of" the highly compensated employees, since they are getting less insurance. Thus, the anti-discrimination provisions present no impediment to SCS.

Discrimination Provisions Desirable?, 55 U. CHI. L. REV. 790, 828 (1988) (arguing that employer-employee bargaining is likely to reach the optimal distribution between benefits and wages, making this market intervention inadvisable). Note that Congress had passed in 26 U.S.C. § 89 (1988) more specific and concrete specifications as to the nondiscrimination rules in the health insurance context, but then repealed that statute in 1989, leaving the general proscription against discrimination in employee benefits in place, as shown below. See 135 Cong. Rec. H8093-01 (1989) (memo of Robert D. Reischauer, director of the CBO), 1989 WL 188292 ("Nondiscrimination in the provision of employer-provided health coverage remains an important policy objective and the significant tax expenditures for employer-provided health coverage is justified only if such coverage does not discriminate in favor of highly compensated employees.").

226. 26 U.S.C.A. § 105(h)(2)(B) (West 2014).

227. 42 U.S.C.A. § 300gg-16 (West 2014) (incorporating the standard at 26 U.S.C.A. § 105(h)(2)(B)); see Gamage, supra note 137, at 698 (discussing these provisions).

228. See I.R.S. Notice 2011-1, 2011-2 I.R.B. 259.

229. See id. at 3 ("Because regulatory guidance is essential to the operation of the statutory provisions, the [various federal departments] have determined that compliance with § 2716 should not be required (and thus, sanctions for failure to comply do not apply) until after regulations or other administrative guidance of general applicability has been issued under § 2716."); Robert Pear, Rules for Equal Coverage by Employers Remain Elusive Under Health Law, N.Y. TIMES, Jan. 18, 2014, http://www.nytimes.com/2014/01/19/us/rules-for-equal-coverage-by-employers-remainelusive-under-health-law.html (explaining that no enforcement will be likely until 2015 at the earliest); Linda Panszszyk, Dump FSA "Use It or Lose It" Rule, Commenters Tell IRS, ASPEN PUBLISHERS TECHNICAL ANSWERS GRP. (TAG) (Oct. 19, 2012, 10:00 AM), http://healthcarelegislation.blogspot.com/2012/10/dump-fsa-use-it-or-lose-it-rule.html (reporting on comments of U.S. Department of Treasury attorney-advisor Kevin Knopf at an ABA meeting, discussing IRS Notice 2011-1).

230. See generally La Fata v. Raytheon Co., 302 F. Supp. 2d 398, 417 (E.D. Pa. 2004), aff'd, 147 F. App'x 258 (3d Cir. 2005) (reviewing definitions of "discrimination" under similar employee benefits statutes and caselaw applying the concept). In the context of wage-replacement benefits, scaled benefits are explicitly allowed. See 26 U.S.C.A. § 401(a)(5)(A) (West 2014) ("[B]enefits may bear uniform relationship to compensation . . . ").

More provocatively, could these anti-discrimination provisions actually require SCS? Is it possible that health insurance with unscaled cost-sharing is already illegal as a discriminatory employment benefit? At first blush, this claim seems dubious because the per-capita insurance benefits are nominally equal for each beneficiary, and thus facially non-discriminatory.

Still, at the point of healthcare consumption, a cost-sharing burden imposes a precondition on employees accessing the employment benefit. If the worker wants her employer to pay for 82% of the costs of her surgery as an employment benefit, the worker has to be able to pay the 18% coinsurance rate at the point of consumption. In practical terms, the covered healthcare is the employment benefit, and without paying that access fee, the lower-paid employee does not get the benefit. This is to say that when a worker is unable to pay the access fee to get a treatment, she is effectively uninsured for that treatment, unlike the wealthier workers who are able to access the treatment.

The point is not merely analytical. Evidence shows that underinsured individuals behave similarly to those without any insurance at all. The empirical findings that have accumulated over decades bear repeating: "low-income people in poor health are more likely to suffer adverse health outcomes, such as increased rates of emergency department (ED) use, hospitalizations, admission to nursing homes, and death, when increased cost-sharing causes them to reduce their use of health care "²³³

In this way, a health insurance plan that reduces wages for all workers and substitutes a benefit that disproportionately goes to wealthy workers is a "reverse Robin Hood." As Gregg Bloche explains:

Outpatient diagnostic work-ups, which high cost sharing discourages, often trigger cascades of care (including hospitalization)—and spending that exceeds out-of-pocket maxima. Insurance then picks up the bill—more frequently for those who are able and willing to pay out of pocket for the triggering diagnostic work-up. . . . [T]hose who are less able and willing to pay out of pocket, outside the hospital, receive less of the high-cost care that exceeds annual maxima and is therefore insured in full. These less prosperous policyholders thus tap the insurance pool to a lesser degree. Yet for employment-based coverage, at least, all who subscribe to a given plan pay equally into the pool. The result is a cross-subsidy from the less well-off to the more prosperous via

^{231.} See 26 C.F.R. § 1.105–11 (2013) ("Plan benefits will not satisfy the requirements of this subparagraph unless all the benefits provided for participants who are highly compensated individuals are provided for all other participants.").

^{232.} See supra notes 43–59 and accompanying text (defining and documenting underinsurance).

^{233.} Swartz, supra note 9, at 12.

^{234.} See supra note 97 and accompanying text (describing the "reverse Robin Hood" effect).

premiums and payouts from high-deductible plans. 235

This is a "systematic inequity" where "health insurance premiums paid on behalf of lower-income members go to subsidize the costly consumption habits of those with higher incomes."²³⁶

This discrimination is a way to subterfuge supplemental compensation as an employment benefit for highly compensated workers. When the income is hidden as a discriminatory benefit, it can escape taxation. The anti-discrimination rule has always had this purchase of policing abuse of the tax exemption.²³⁷

This argument would arguably be inapplicable to the 10% of firms that already scale the worker's contribution to health insurance premiums progressively, if that scaling is progressive enough to counterbalance the regressive effects of per-capita burdens at the point of consumption. However, this Article has shown that scaled cost-sharing would be more efficient than premium-scaling, since it may also improve productivity and consumption behavior. More generally, firms might argue that the forgone wages that it uses to purchase health insurance benefits are somehow proportionate to income, such that the higher-paid workers actually "pay" more for the benefit. However, beyond hand-waving and stipulated accounting methods, such an argument would be difficult to demonstrate empirically, since the counterfactual is unknown. Worse, the argument might cut too broadly, undermining any application of the anti-discrimination rule, for healthcare or other employment benefits.

The discrimination argument would also be inapplicable to an insurance plan that has such low cost-sharing burdens that even the poorest workers have no difficulty securing healthcare. The trend over recent years, however, has been to dramatically increase cost-sharing burdens in order to reduce healthcare spending and remain competitive. As that trend continues, the anti-discrimination rule can ensure that additional burdens are distributed at least somewhat equitably.

For firms that fail to scale, ERISA provides a private cause of action for

^{235.} Bloche, supra note 52, at 1322.

^{236.} Havighurst & Richman, *supra* note 95, at 42. The authors note that "these matters do not appear to have been specifically studied by others." *Id.* at 43. My own search of the literature has failed to find empirical documentation of this precise effect, specifically disaggregating the insurer's spending for workers by income.

^{237.} See Bruce Wolk, Discrimination Rules for Qualified Retirement Plans: Good Intentions Confront Economic Reality, 70 VA. L. REV. 419, 434 (1984) ("Congress designed the discrimination rules to ensure that retirement plan benefits will flow to lower paid employees."). See generally PETER WIEDENBECK, ERISA: PRINCIPLES OF EMPLOYEE BENEFIT LAW 303–11 (2010).

^{238.} See supra note 115 (listing sources that discuss the scaling of premiums).

^{239.} See supra Section II.C.

^{240.} See Employer Health Benefits 2012, supra note 6, at 5 exhibit F (showing a nearly tripling in six years of the proportion of firms with an annual deductible over \$1,000).

workers to police such discrimination.²⁴¹ Thus, litigation could force employers to adopt SCS. However, given the novelty of the theory here asserted, the courts would be more agreeable if the reform were achieved through the prospective use of IRS notice-and-comment rulemaking.²⁴²

A pragmatic purpose for the IRS to intervene in favor of SCS would be to rationalize the larger tax code as amended by the ACA. As shown in Section III.C above, the tax code may be distorting the market, which would otherwise settle on SCS. Further, David Gamage has compellingly argued that the current form of the ACA creates a perverse incentive for poorer workers to opt out of employer-sponsored health insurance (or even out of employment altogether) and to get the income-scaled subsidies through the exchanges instead. If the IRS were to use the antidiscrimination power to implement income scaling in employer-sponsored insurance, those distortions would be muted.

An IRS mandate for SCS would admittedly be a change of course for the IRS, though it would not be without basis in current regulations. In the regulations applying the health insurance non-discrimination provision for non-self-insured plans, the IRS has said that,

Not only must a plan not discriminate on its face in providing benefits in favor of highly compensated individuals, the plan also must not discriminate in favor of such employees in actual operation. The determination of whether plan benefits discriminate in operation in favor of highly compensated individuals is made on the basis of the facts and circumstances of each case.²⁴⁴

That passage seems to suggest that unscaled preconditions for accessing employment benefits discriminate in favor of highly compensated employees in actual operation.

However, the IRS regulation goes on to say that "[a] plan is not considered discriminatory merely because highly compensated individuals participating in the plan utilize a broad range of plan benefits to a greater extent than do other employees participating in the plan." That passage appears to have never been

^{241.} Section 502(a)(3) of ERISA permits a participant, beneficiary, or fiduciary to bring a civil action to enjoin any act or practice that violates ERISA or the terms of the plan, or to obtain "other appropriate equitable relief" due to an ERISA violation. 29 U.S.C. § 1132(a)(3) (2012). See also I.R.S. Notice 2010-63, 2010-41 I.R.B. 420 (stating that if an insured group health plan fails to comply with section 2716 of the Public Health Service Act, "the plan is subject to a civil action to compel it to provide nondiscriminatory benefits").

^{242.} See Christensen v. Harris Cnty., 529 U.S. 576, 587 (2000) (distinguishing rules that have the force of law from mere opinion letters or enforcement guidelines).

^{243.} See Gamage, supra note 137.

^{244. 26} C.F.R. § 1.105-11(c)(3)(ii) (2013).

^{245.} Id.

litigated.²⁴⁶

For other technical aspects of determining whether a health insurance plan is discriminatory, the IRS has pointed towards the non-discrimination provisions in the pension plan context, which have benefited from much more litigation and development. There, just as in the health insurance context, the IRS has long said that "[t]he law is concerned not only with the form of a plan but also with its effects in operation."

In particular, the IRS imposes a test to ensure that contributions to 401(k)s are proportionate to income for all workers. The IRS regulations applying the antidiscrimination provision for the pension statute also warn that discrimination can arise in the way "in which income, expenses, gains, or losses are allocated to accounts under the plan." One commentator has argued that, under this rule, it would be "certainly discriminatory" for a plan to impose an investment management fee to the plan beneficiaries on a per-capita basis. This insight is equally applicable to the per-capita cost-sharing maximums that are currently used in health insurance. Similarly, in the pension plan context, it has been recognized that an employer's uniform rule for vesting may have the effect of

^{246.} Research reveals only a single private letter ruling that quoted, but did not analyze, that passage. See I.R.S. Priv. Ltr. Rul. 81-34-129 (May 29, 1981). See also Wiedenbeck, supra note 225, at 221 (discussing the theory that "[i]f average utilization by members of the suspect group is greater than for other employees, one may conclude that the plan contravenes the applicable amount nondiscrimination rule").

^{247. 26} C.F.R. § 1.105-11(c)(2)(ii) (2013).

^{248.} Id. § 1.401-1(b)(3) (2013). See Lansons, Inc. v. Commissioner, 69 T.C. 773, 780 (1978), aff'd, Lansons, Inc. v. Commissioner, 622 F.2d 774 (5th Cir. 1980) (discussing this provision); see also id. at 789 (Simpson, J., dissenting) (collecting cases).

^{249.} See 401(k) Plan Fix-lt Guide – The Plan Failed the 401(k) ADP and ACP Nondiscrimination Tests, 1RS, http://www.irs.gov/Retirement-Plans/401%28k%29-Plan-Fix-lt-Guide---The-plan-failed-the-401%28k%29-ADP-and-ACP-nondiscrimination-tests. (last visited Sept. 4, 2013).

^{250. 26} C.F.R. § 1.401(a)(4)-1 (2013).

^{251.} Berglund, *supra* note 256, at 154 ("[A]llocating the investment management fee on a per capita basis is certainly discriminatory. The larger account balances will generate more investment management fees than the smaller account balances, and highly compensated employees are likely to have the highest account balances. Charging the smaller account balances for a portion of the investment management fees generated by the larger account balances basically improves the return of highly compensated employees' account balance at the expense of the non-highly compensated employees."). But see Field Assistance Bulletin 2003-3: Allocation of Expenses in a Defined Contribution Plan, DEP'T OF LABOR (May 19, 2003), http://www.dol.gov/ebsa/regs/fab_2003-3.html (suggesting that either a pro rata or per capita allocation may be appropriate, depending on the circumstances, but not discussing the application of the anti-discrimination rule). For an argument raising concerns about the discriminatory impact of per capita plan expense allocation, see Pamela Baker, Payment of Plan Expenses with Plan Assets: What Can You Do, What You Can't Do, What You Should Think About, in PENSION, PROFIT-SHARING, WELFARE, AND OTHER COMPENSATION PLANS 757, 776 (ALI-ABA Course of Study Materials: Pension, Profit-sharing, Welfare, and Other Compensation Plans, 1993).

discriminating against lower-paid workers who switch jobs more frequently.²⁵² Accordingly, although there are difficult line-drawing problems, Congress and the IRS have provided a safe harbor to prevent firms from exploiting this background distribution in a way that egregiously discriminated in favor of highly compensated workers.²⁵³

Facial discrimination is neither necessary nor sufficient for the IRS to find discrimination. For example, a distinction between salaried and clerical employees may appear facially discriminatory, but the statute says that discrimination should not be found "merely because" a plan includes that distinction.²⁵⁴ Even there, the IRS has reserved its discretion to find a disparate impact based on precisely those provisions.²⁵⁵ The IRS has preserved an ultimate discretion to examine plans pragmatically based on a finding of discriminatory impact, regardless of the mechanism.²⁵⁶ If the IRS were to determine that unscaled cost-sharing were discriminatory, it would be entitled to substantial deference by the courts.²⁵⁷

Admittedly, it is peculiar to suppose that a form of benefits used openly by employers nationwide for decades could suddenly be found to be a form of illegal discrimination.²⁵⁸ Nevertheless, the statute of limitations presents no impediment because each application of an employer's discriminatory policy is itself a violation, regardless of when the policy was enacted.²⁵⁹ The Supreme

^{252.} See Wolk, supra note 237, at 451.

^{253.} See id.

^{254.} See 26 U.S.C. § 401(a)(4)-(5) (2006).

^{255. 26} C.F.R. § 1.401-1(b)(3) (2013) ("[S]ection 401(a)(5) specifies certain provisions which of themselves are not discriminatory. However, this does not mean that a plan containing these provisions may not be discriminatory in actual operation.").

^{256. &}quot;What the IRS is basically saying is that, despite all the supposedly objective tests set forth in the rules, there is still an overriding 'smell' test which a plan must satisfy before it will be considered non-discriminatory." Brian W. Berglund, *The Nuts and Bolts of Discrimination Testing*, in Fundamentals of Employee Benefits Law 131, 151 (ALI-ABA Course of Study Materials: Fundamentals of Emp. Benefits Law, 2004).

^{257.} Loevsky v. Commissioner, 55 T.C. 1144, 1149 (1971), aff'd, 471 F.2d 1178 (3d Cir. 1973) (holding that an IRS determination as to discriminatory effect should not be set aside unless it is found to be unreasonable, arbitrary or an abuse of discretion).

^{258.} See Gamage, supra note 137, at 700 (considering and rejecting a similar argument that it would be discriminatory for employers to construct their health insurance plans in a way that encourages lower-paid workers to purchase insurance on the individual exchanges instead). Note that Professor Gamage does not consider the "merely because of" proviso discussed herein.

^{259.} Lewis v. City of Chicago, 560 U.S. 205 (2010); see, e.g., Chin v. Port Auth. of N.Y. & N.J., 685 F.3d 135, 158 (2d Cir. 2012) (applying the Lewis holding to find that each time the Port Authority failed to promote one of the plaintiffs, that plaintiff had 180 days to challenge the decision); see also Nat'l R.R. Passenger Corp. v. Morgan, 536 U.S. 101, 117 (2002) (explaining that if any "act contributing to the [hostile work environment] claim occurs within the [statutorily required] filing period, the entire time period of the hostile environment may be considered by a court for the purposes of determining liability").

Court has rejected the notion that "if an employer adopts an unlawful practice and no timely charge is brought, it can continue using the practice indefinitely, with impunity, despite ongoing disparate impact." ²⁶⁰

In other contexts, courts have been willing to strike down longstanding practices that were facially neutral, but turned out to have a discriminatory effect in practice. For example, consider the landmark race discrimination case of *Duke Power v. Griggs*. There, the challenged practice was simply "requiring a high school education or passing of a standardized general intelligence test as a condition of employment," which the firm had been doing for more than a decade. Congress later endorsed the Court's "disparate impact" theory, codifying it into statute.

ERISA scholars do not typically borrow from the racial discrimination case law in this way to shed light on highly compensated individual discrimination, but the analogy is direct. Disparate impact outlaws "employment practices that are facially neutral in their treatment of different groups but that in fact fall more harshly on one group than another and cannot be justified by business necessity." Likewise, this Article has shown that while unscaled cost-sharing burden is facially neutral, in application it has the effect of predicating the employment benefit on the worker's ability to pay. It thus has a disparate impact.

A similar issue of "vertical equity" arises in litigation over school financing, where it is recognized that a simple funding scheme applied to differently situated children may wreak inequitable results. 265 At least four state supreme courts have applied vertical equity concepts in defining their state education clauses. 266 In one case, the court held that the needs of students from poor districts required the state to spend more money than it spent on students from wealthy districts in an effort to ensure that the disadvantaged children can "compete in, and contribute to, the society entered by the relatively advantaged children." Just as in the health insurance, equity is measured by equality of

^{260.} Lewis, 560 U.S. at 216.

^{261. 401} U.S. 424 (1971).

^{262.} Id. at 425.

^{263.} See 42 U.S.C. § 2000e-2(k) (2006) (enacting the disparate impact theory).

^{264.} Int'l Bhd. of Teamsters v. United States, 431 U.S. 324, 335 n.15 (1977), cited with approval in Hazen Paper Co. v. Biggins, 507 U.S. 604, 609 (1993); see also Smith v. City of Jackson, 544 U.S. 228, 230 (2005) (extending the "disparate impact" theory to the Age Discrimination in Employment Act, after it had previously been limited to racial contexts).

^{265.} See Julie K. Underwood, School Finance Adequacy as Vertical Equity, 28 U. MICH. J.L. REFORM 493, 495–96 (1995) (defining the concept).

^{266.} See Preston C. Green, III et al., Achieving Racial Equal Educational Opportunity Through School Finance Litigation, 4 STAN. J. C.R. & C.L. 283, 314 (2008).

^{267.} Abbott v. Burke, 495 A.2d 376, 390 (N.J. 1985); see Erin E. Buzuvis, "A" for Effort: Evaluating Recent State Education Reform in Response to Judicial Demands for Equity and Adequacy, 86 CORNELL L. REV. 644, 683 (2001).

access.

In both litigation about discriminatory business practices and litigation about tax avoidance schemes, a primary question is whether a provision serves a bona fide business purpose. ²⁶⁸ The purpose of health insurance is to guarantee access and protect against unbearable risk, while the purpose of cost-sharing is to reduce wasteful spending on low-value healthcare. A flat cost-sharing scheme simply does not serve these purposes as well as a scaled benefit, since it facilitates wasteful spending at the top and deters high-value spending at the bottom. ²⁶⁹ Since scaling could be accomplished at the same or less cost to the employer compared to the current cost-sharing mechanisms (as shown in Section II.C above), per-capita cost-sharing would seem to lack a bona fide purpose. Per capita cost-sharing is discrimination.

Firms could move into compliance by scaling cost-sharing downwards for poorer workers, scaling upwards for wealthier workers, or both. ²⁷⁰ The test would turn on whether the benefit effectively provides the same value to highly compensated and other workers.

It is important to note that health insurance benefits are only part of a worker's compensation package, and that the IRS does not regulate inequality in other parts, such as wages. Thus, some firms may attempt to adjust wages at each level to maintain the same net compensation for each worker as they had prior to the reform. Alternatively, the change towards SCS may have no effect on wages. All competing firms in the labor market will be subject to this same mandate, for both highly paid and other workers, which suggests that the market equilibrium may not be disrupted. There is also a long-standing norm that employer-sponsored health insurance is "community rated," rather than individually priced. Additionally, there may be a floor to lower-paid worker wages: "A lot of writing on ERISA suggests that since the nondiscrimination test requires that the low income participate and since the low income will not accept sufficient pay cuts, the highly paid have to allocate part of their tax savings to encourage

^{268.} See, e.g., 42 U.S.C. § 2000e-2(e)(1) (2006) (allowing employers to rebut disparate impact claims by showing that a given provision "is a bona fide occupational qualification reasonably necessary to the normal operation of that particular business or enterprise"); Coltec Indus., Inc. v. United States, 454 F.3d 1340, 1350 (Fed. Cir. 2006) (The "anti-abuse provision applies where liabilities are assumed principally for tax avoidance purposes or lack a bona fide business purpose.").

^{269.} See supra Section II.C.

^{270.} See Bankman, supra note 225, at 830 ("[A]n employer might also meet the requirement of proportionality by reducing the benefits of the highly compensated.").

^{271.} See Halperin, supra note 169, at 59 ("If provision of health insurance results in a wage cut by either the pretax cost of health insurance or the cost plus the tax savings, it is not clear whose wages are cut.").

^{272.} See supra Section III.A.

the low paid to be part of the plan."²⁷³ In that case, the net effect of SCS will be to reduce overall income inequality.

Still, it bears emphasis that my interpretation of the non-discrimination rule under current law does not provide a warrant for the IRS to implement an ideally progressive version of SCS. At most, it can correct cases where cost-sharing burdens are so high that they present a barrier to lower-paid workers, undermining the purposes of health insurance. There is no mandate under the tax code for requiring progressive redistribution in employee benefits. Instead, if Congress seeks greater progressivity, it should adjust marginal tax rates, once it appears that insurance is achieving its purposes of securing access and protecting against risk. ²⁷⁴

Ultimately, it is clear that current federal law allows SCS. Further, there is a clear basis for holding that the law, and the IRS regulations interpreting that law, actually prohibit unscaled cost-sharing as an impermissible discrimination in favor of highly compensated workers.

CONCLUSIONS

Health insurance can be reformed so it better serves its purposes and accomplishes its normative mandate to protect beneficiaries from unbearable risks and guarantee their access to needed care. By refining the price signal for healthcare, SCS should provide better incentives to consumers, producers, and providers in the healthcare market, making the market more efficient. Scaling will allow patients to make more rational tradeoffs between health spending and other spending, improving the efficiency of the larger economy.

Still, discomfort with cost-sharing, as a market-based solution to the escalation of healthcare costs, will persist. Reasonable people can disagree about whether cost-sharing is the optimal way to make healthcare consumption decisions, but if cost-sharing is utilized, it should be scaled according to income.

This Article has suggested that there is a remarkably timely and easy legal mechanism to bring about this change for the 168 million people that get their insurance from their employers. The IRS should use its current authority under

^{273.} Halperin, supra note 169, at 59; see also Daniel I. Halperin, Special Tax Treatment for Employer-Based Retirement Programs: Is It "Still" Viable as a Means of Increasing Retirement Income? Should It Continue?, 49 Tax L. Rev. 1, 14 (1993) (describing this dynamic in greater detail); Wolk, supra note 237, at 429–34 (same).

^{274.} See Louis Kaplow & Steven Shavell, Why the Legal System Is Less Efficient than the Income Tax in Redistributing Income, 23 J. LEGAL STUD. 667 (1994) (suggesting that redistributional choices should be made overtly in the tax code).

^{275.} See Bruce Vladeck, The Market v. Regulation: The Case for Regulation, 59 MILBANK Q. 209, 211 (1981) ("Consumers...don't wish to be forced to make rational trade-offs when they are confronted with medical care consumption decisions.... As a society, we may be prepared to pay a substantial economic premium to insulate people from having to make such decisions.").

the anti-discrimination provisions of the tax code to eliminate this disparate impact on poorer workers and reduce the distortion caused by the tax preference for insurance over out-of-pocket spending. With little more than the stroke of a pen, the executive branch can eliminate the current distortions that lead to inefficiency and injustice.

Principles over Principals? How Innovation Affects the Agency Relationship in Medical and Legal Practice

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ABSTRACT:

This Note outlines a conceptual framework for defining and analyzing innovation in the professional practice of medicine and law. The two professions have structural and historical similarities, and both are organized around the principal-agent relationship. Some types of professional activity adhere to the traditional agency model of principal-centered practice, but innovative professionals who develop novel tools and techniques often deviate from the agency model in interesting ways. This Note explores how that distinction plays out by identifying examples from academic medicine, public interest "cause lawyering", and corporate law. The field of medicine is governed by a regulatory regime that strictly differentiates routine practice from the experimental activities of clinical research, but the legal profession is governed by a monolithic code of conduct that does not explicitly acknowledge the types of innovation described here. Certain key events in the twentieth century help to explain why the government has chosen to tightly regulate innovation in medicine but not in law, and it turns out that innovators in both fields have found ways to stretch or bend the rules. These observations shed light on each profession's unique culture and can inform current debates over regulatory reform.

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INTRODUCTION: WORKBENCH AND LAB BENCH

Lawyering on behalf of a client is an inherently goal-oriented occupation. The Model Rules of Professional Conduct instruct each attorney to "take whatever lawful and ethical measures are required to vindicate a client's cause or endeavor" and to "act... with zeal in advocacy upon the client's behalf." In the classical conception of litigation, the opposing lawyers deliver rousing orations and hurl pointed objections to persuade the decision makers to accept their version of the facts and interpretation of the law. This clash is the crux of our adversarial legal system, which is predicated on "the assumption that the truth of a controversy will best be arrived at by granting the competing parties, with the help of an advocate, an opportunity to fight as hard as possible."

In this view, the courtroom is like a workbench. Just as a carpenter takes a block of wood and carefully cuts, shapes, and sands it down into a chair, the attorneys take turns hewing away unhelpful facts and spurious reasoning to reveal the ultimate truth at the heart of the case. Through their antagonistic advocacy, they fulfill their roles as officers of the court in a coordinated and linear journey toward securing a just resolution.³

As an alternative perspective, we might swap the workbench for a laboratory bench. Like scientific researchers who devise methodical experiments to determine descriptive characteristics and isolate causal relationships,⁴ each attorney presents a hypothesis about the outcome of the case, and carefully combines this piece of evidence with that legal argument to see if a favorable theory will carry the day.⁵ Unlike the workbench analogy, where skilled craftsmen practice routine gestures to achieve an expected end, the process of experimentation is non-linear. The results of an experiment may not turn out as expected or hoped, but each case serves to advance or reaffirm the body of legal precedent that defines what the law "is" for future litigants.⁶ In this way,

^{1.} MODEL RULES OF PROF'L CONDUCT R. 1.3 cmt. para. 1 (2013) [hereinafter MODEL RULES].

^{2.} Robert Gilbert Johnston & Sara Lufrano, *The Adversary System as a Means of Seeking Truth and Justice*, 35 J. Marshall L. Rev. 147, 147 (2002).

^{3.} See id. at 161.

^{4. &}quot;[T]he structure of scientific experiments is fundamentally stable all across the basic-clinical spectrum." Steven Joffe & Franklin G. Miller, *Bench to Bedside: Mapping the Moral Terrain of Clinical Research*, 38 HASTINGS CTR. REP. 30, 34 (2008) (describing the scientific method of prospectively defined hypothesis, research methods, and outcome assessment metrics).

^{5.} The lawyers challenging anti-contraception statutes in the 1960s, for example, proposed that the laws were unconstitutional because they "den[ied] appellants the right to liberty and property without due process of law in violation of the Fourteenth Amendment." Brief for Appellants at 11, Griswold v. Connecticut, 381 U.S. 479 (1965).

^{6.} See, e.g., 1 Bruce Ackerman, We the People: Foundations 17 (1991) (explaining that the "common law tradition" is rooted in "the patterns of concrete decisions built up by courts . . . over decades, generations, centuries").

litigation creates "generalizable knowledge," the defining feature of medical research.⁷

The lab bench analogy is not appropriate for all types of legal work, however. Preparing standard documents and settling run-of-the-mill disputes seem more like the familiar everyday tasks of a craftsman. Legal activity starts to look more like experimentation when it is motivated at least in part by the desire to establish generalizable knowledge or impact beyond the desire for a favorable outcome in the particular case for the particular client. Typically, the opportunity for novel developments in law arises out of some novel element in the fact pattern or legal argument.

This division is familiar in the world of medicine, where medical practice on human patients and medical research on human subjects are strictly differentiated with separate ethical⁸ and legal codes.⁹ The Belmont Report, the foundational code of ethics for research on human subjects, ¹⁰ emphasizes the pursuit of "generalizable knowledge" to differentiate research from "medical or behavioral practice," which is based on diagnosis and treatment.¹¹ As the Report explains, "The fact that a procedure is . . . new, untested or different[] does not automatically place it in the category of research." Rather, the defining feature is one of intent: research is "designed to test an hypothesis [and] permit

^{7.} See 45 C.F.R. § 46.102 (2014) (defining "research" as "a systematic investigation... designed to develop or contribute to *generalizable knowledge*") (emphasis added).

^{8.} See Nat'l Comm. for the Prot. of Human Subjects of Biomedical and Behavioral Research, The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research, U.S. DEPT. HEALTH & HUM. SERVICES (HHS) (April 18, 1979) [hereinafter Belmont Report], http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html. The Belmont Report states that research in human subjects must be guided by the core ethical principles of respect for persons, beneficence, and justice.

^{9.} See Joel Kupersmith, Reforming the Research Regulatory System, HEALTH AFF. BLog (Apr. 24, 2013, 2:26 PM), http://healthaffairs.org/blog/2013/04/24/reforming-the-research-regulatory-system/ (noting that categorizing an activity as research triggers "an intensive set of requirements[,] . . . including review, approval, and continued oversight by an Institutional Review Board (IRB); reporting requirements; the necessity for informed consent (often highly complex); and other administrative components"). These requirements apply to all research in human subjects that receives federal funding, as outlined in the HHS "Common Rule." 45 C.F.R. § 46 (2014).

^{10.} See Federal Policy for the Protection of Human Subjects ("Common Rule"), HHS, http://www.hhs.gov/ohrp/humansubjects/commonrule/index.html (last visited June 6, 2013) ("The current U.S. system of protection for human research subjects is heavily influenced by the Belmont Report, written in 1979.").

^{11.} See Belmont Report, supra note 8.

^{12.} *Id.* The *Belmont Report* describes novel treatments as "experimental" whether or not they constitute research. I removed the term to avoid confusion with my chosen terminology in this Note, as explained below. *See infra* notes 21–24 and accompanying text. Briefly, I use "experimentation" as a trans-substantive concept equivalent to medical research, with a focus on generalizable knowledge. I use "uncertainty" to refer to the untested nature of novel developments.

conclusions to be drawn."¹³ These conclusions go beyond the specific results of the study and express "theories, principles, and statements of relationships" in order "to develop or contribute to generalizable knowledge."¹⁴

This distinction between medical treatment and medical research serves as a point of departure for this Note, which explores innovation in the professional practice of medicine and law. Innovation has long been an essential feature of both occupations, but only recently have scholars begun to describe the process of innovation itself¹⁵ and to determine how best to promote creativity as part of professional education and training. ¹⁶ Doctors and lawyers are often cited side by side in discussions of the "learned professions" ¹⁷ and obligations in principal-agent relationships. ¹⁸ These historical and structural similarities help to highlight the common processes at the heart of medical and legal innovation, and cast in sharp relief the stark differences in the way the federal government has approached the regulation of innovative practitioners in each field. ¹⁹

This discussion matters because of the important role that doctors and lawyers play in supporting individual prosperity and promoting social wellbeing.

^{13.} Belmont Report, supra note 8.

^{14.} Id.

^{15.} See Riskin et al., Innovation in Surgery: A Historical Perspective, 244 Annals Surgery 686, 686 (2006) ("While innovation in surgery has a rich tradition, the field and study of surgical innovation are new."); Kenneth C. Kettering, Securitization and Its Discontents: The Dynamics of Financial Product Development, 29 Cardozo L. Rev. 1553, 1554-55 (2007) ("Shelves are laden with scholarly writings on particular innovations.... But studies of the process of innovation, though not unknown, are comparatively few.").

^{16.} See Roberta B. Ness, Commentary: Teaching Creativity and Innovative Thinking in Medicine and the Health Sciences, 86 ACAD. MED. 1201, 1201 (2011) ("Although academic medicine provides informal training in creativity and innovation, it has yet to incorporate formal instruction on these topics into medical education."); Karl S. Okamoto, Learning and Learning-to-Learn by Doing: Simulating Corporate Practice in Law School, 45 J. LEGAL EDUC. 498, 500 (1995) (noting that "innovation is a word we rarely hear in law school," and that "[i]nnovation requires a different kind of self-learning" than what is currently taught).

^{17.} See, e.g., Edmund D. Pellegrino, Character, Virtue and Self-Interest in the Ethics of the Professions, 5 J. Contemp. Health L. & Pol'y 53, 58 (1989).

^{18.} See, e.g., E. Haavi Morreim, The Clinical Investigator as Fiduciary: Discarding a Misguided Idea, 33 J.L. MED. & ETHICS 586, 593 (2005) ("[1]n some cases the whole point of the activity is to promote someone's right, e.g. as when an attorney defends his client's innocence, or when a physician diagnoses and treats a patient.").

^{19.} Clinical research is largely regulated at the federal level. See infra notes 185–188 and accompanying text. The legal profession is largely self-regulated. See infra notes 191–192, and accompanying text. Legal practice is governed at the state level, but state codes of professional conduct are based in large part on the Model Rules of Professional Conduct, which are developed by the American Bar Association (ABA). See Ctr. for Prof'l Responsibility, Model Rules of Professional Conduct, ABA, http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct.html (last visited Mar. 1, 2014) ("California is the only state that does not have professional conduct rules that follow the format of the ABA Model Rules of Professional Conduct.").

The actual work of open heart surgery may bear little resemblance to cross-examining a witness, but as this Note argues, doctors and lawyers share common heuristics for improving the efficiency and efficacy of their work. Exploring the features they have in common also allows us to identify particular characteristics that make each profession unique, highlighting traits that should guide future discussions about regulatory reform.

To organize my comparison of the two occupations, I outline in Part I a generalized conceptual framework for professional activity. Routine practice and experimentation are not a stark binary; rather, they sit at opposite ends of a spectrum. Professional practice is defined by the principal-agent relationship, in which the agent aims to serve the principal's interest. Novel elements and developments move us along the spectrum toward experimentation, but the operative distinction between practice and experimentation is a reorientation of the agent's focus from the interests of the principal to the interests of the broader class of individuals to which the principal belongs.

Part II fills in the conceptual framework by examining where innovative activity actually occurs, explaining that innovation and experimentation are primarily concentrated in a few professional contexts. Academic medical centers produce most of the major advances in medical practice and research. Novel legal techniques and strategies, meanwhile, are typically generated by attorneys in two highly disparate lines of work: "cause lawyers" who use litigation as a tool for social change, ²⁰ and attorneys in prestigious private firms who innovate on behalf of large corporate clients.

Part III notes that both professions struggle with the challenge of accurately representing reality when designing research studies or planning litigation strategy, as well as the difficulty of encouraging the adoption of novel developments beyond the small communities of innovators identified in Part II.

Despite these similarities in the processes and players of innovation, the two professions are subject to very different regulatory regimes. The federal government has imposed a dualistic regulatory model on medicine, with a bright line differentiating medical research from medical treatment. The legal profession, meanwhile, maintains a single code of professional conduct that does not explicitly acknowledge innovation. Part IV explains that difference by exploring the historical development and rationales of these regulations.

^{20. &}quot;Cause lawyer" is the term used by Stuart Scheingold and Austin Sarat, who have been leaders in producing and assembling scholarship on this branch of the legal profession. See STUART A. SCHEINGOLD & AUSTIN SARAT, SOMETHING TO BELIEVE IN: POLITICS, PROFESSIONALISM, AND CAUSE LAWYERING 5 (2004) [hereinafter Something to Believe In] (explaining why they prefer "cause lawyer" over other terms). Labels like public interest lawyer, movement lawyer, and social justice lawyer have also been used to signify the same class of attorneys or to differentiate within or between classes of attorneys.

Part V concludes with the observation that even with widely divergent regulatory approaches, both professions show evidence of gravitating toward the middle of the spectrum: practitioners seek to capture the benefits of novel developments, while professionals engaged in experimentation often retain elements of the principal-centered ethical framework characteristic of routine practice. This observation not only underscores the essential commonalities of innovative work in the two professions, but also brings a new perspective to current debates about the future directions of regulatory reform.

Finally, a brief note on terminology. "Experimentation" is no longer the preferred term for medical research involving human subjects, which is now called "clinical research." For the purposes of this Note, however, "experimentation" will serve as a trans-substantive term for professional activities that seek generalizable knowledge or impact through planned and controlled interactions with individuals, as outlined in Section I.C. Similarly, the "principal-agent relationship" will provide a generalized vocabulary for discussing patients, subjects, and clients (principals) and their relationships with doctors, clinical researchers, and lawyers (agents). The term "innovation" is used throughout to refer to a novel development, such as a new surgical technique or a creative corporate structure.

^{21.} See Nat'l Inst. of Child Health and Human Dev., Clinical Trials & Clinical Research, NAT'L INSTS. HEALTH (last updated Mar. 6, 2012), http://www.nichd.nih.gov/health/clinicalresearch/Pages/index.aspx ("Clinical research is research that directly involves a particular person or group of people."). These terms matter, as has been documented in studies polling patients about their willingness to participate in potential activities with various names. Surveyed patients have consistently reported that "medical experiments" sound riskier than terms like "medical research" or "clinical studies." See Ronald R. Butters et al., Semantic and Pragmatic Variability in Medical Research Terms: Implications for Obtaining Meaningful Informed Consent, 75 Am. Speech 149, 162 (2000); Jeremy Sugarman et al., What Patients Say About Medical Research, Ethics & Hum. Res., Jul.—Aug. 1998, at 1, 3.

^{22.} In medicine, this means clinical research. For the equivalent activity in law, I use the terms "impact litigation" and "test case" interchangeably.

^{23.} In medicine, a "patient" is an individual seeking medical treatment from a physician, while an individual enrolled in a research study is called a "research subject." However, there are some in the bioethics community who now prefer the term "participants." See Ethical and Policy Issues in International Research: Clinical Trials in Developing Countries, NAT'L BIOETHICS ADVISORY COMM'N, at xv n.1 (Apr. 2001), http://bioethics.georgetown.edu/nbac/clinical/Vol1.pdf (choosing the term "participant" because "subject," though "widely used . . . , impl[ies] a diminished position of those enrolled in research in relation to the researcher").

^{24.} Individuals with training in both medical practice and academic research are sometimes referred to as "physician-researchers," highlighting "the dual role of physician-researcher in relation to the patient-subject." Robert J. Levine, *Clinical Trials and Physicians as Double Agents*, 65 YALE J. BIO. MED. 65, 66 (1992).

I. THE SPECTRUM OF PRACTICE AND EXPERIMENTATION

Practice and experimentation lie at opposite ends of the spectrum of professional activity. Part I divides the spectrum into three categories—routine practice, innovative practice, and experimentation—and explains the professional outlook and types of behavior associated with each one, drawing examples from medicine and finding comparable examples in law.

These labels are not meant to represent hard and fast classifications, since the lines that divide them are neither easy to define nor important for their precise location. Rather, the three categories serve as general signposts along a continuous spectrum. Moving along the spectrum from routine practice toward experimentation relies on a weakening emphasis on principal-centered practice and a stronger focus on generalizability with regard to a class of principals. Note that the categories I will discuss are not professional *roles*, but rather designate types of professional *activity*. A single individual may shift back and forth along the spectrum over the course of a career or even over the course of a day.²⁵

A. Routine Practice

Medical and legal practice, as defined in this Note, are what most people think of when they imagine the day-to-day work of doctors and lawyers. These professionals exemplify the principal-agent relationship, ²⁶ and each profession's code of ethics reflects a duty to further the principal's interests. ²⁷ The American Medical Association (AMA) explains that, within the treatment relationship, the "physician is ethically required to use sound medical judgment, holding the best interests of the patient as paramount." Similarly, the American Bar Association (ABA) instructs lawyers to "provide competent representation to a client," employing "whatever lawful and ethical measures are required to vindicate a client's cause or endeavor."

^{25.} Physicians in academic medical centers, for example, often divide their time between seeing patients and conducting research. Similarly, some corporate attorneys take time away from client-centered practice to work pro bono with public interest organizations on impact litigation.

^{26.} See Brenda Almond, Reasonable Partiality in Professional Relationships, 8 ETHICAL THEORY & MORAL PRAC. 155, 165 (2005) (noting that doctors and lawyers "have special obligations to their clients" and generally "promote their clients' interests above those of others."); Morreim, supra note 18, at 593.

^{27.} The American Medical Association (AMA) exhorts physicians "to place patients' welfare above their own self-interest and above obligations to other groups, and to advocate for their patients' welfare," CODE OF MED. ETHICS Op. 10.015 (Am. Med. Ass'n 2001), echoing the ABA's command for lawyers to "act... with zeal in advocacy upon the client's behalf," MODEL RULES, supra note 1, R. 1.3 cmt. para. 1.

^{28.} CODE OF MED. ETHICS Op. 10.015 (Am. Med. Ass'n 2001).

^{29.} MODEL RULES, supra note 1, R. 1.1.

^{30.} MODEL RULES, supra note 1, R. 1.3 cmt. para. 1.

1. Recognizing Categories of Principals

As practitioners gain experience, they develop heuristics for efficient and effective service by recognizing classes of principals and categories of problems. Doctors learn to associate patients' symptoms with a diagnosis, a label that "organizes [sic] illness: identifying treatment options, predicting outcomes, and providing an explanatory framework." Lawyers develop familiarity with a particular set of legal issues and deftly determine the transactional documents or legal remedies most appropriate for each client's needs. This is what I term "routine practice": addressing principals' problems with the standard tools of the trade. As

As the name suggests, routine practice is characterized by low levels of uncertainty and no emphasis on creating generalizable knowledge. Low uncertainty doesn't mean that the work is easy or that practitioners always achieve their desired ends; it simply indicates that these types of cases present familiar situations in which the odds of success can be roughly estimated based on prior experience. Similarly, a lack of any new generalizable knowledge doesn't mean that routine practice fails to impart valuable experience to the practitioner; rather, it indicates that this type of work is not intended to produce generalizable knowledge for the benefit of *others*. Quite the reverse, in fact: practitioners may learn their craft and improve their skills by looking to generalizable knowledge developed by other professionals.

2. The Idiosyncratic Principal

If practice is defined by the furtherance of principals' best interests, then a

^{31.} See Barton Childs et al., A Science of the Individual: Implications for a Medical School Curriculum, 6 ANN. REV. GENOMICS HUM. GENETICS 313, 316 (2005) ("In general, the doctor's orientation is toward the likenesses between cases that lead to certainty of diagnosis rather than differences that may be pointing to heterogeneity and individuality.").

^{32.} Annemarie Jutel, Sociology of Diagnosis: A Preliminary Review, 31 Soc. Health & Illness 278, 278 (2009).

^{33.} See Carl J. Hosticka, We Don't Care About What Happened, We Only Care About What Is Going to Happen: Lawyer-Client Negotiations of Reality, 26 Soc. Problems 599, 606 (1979) (explaining that lawyers in publicly funded legal services seemed to respond to a "generalized view of cases and clients developed prior to encounters with specific individuals"); Stephen Nathanson, The Role of Problem Solving in Legal Education, 39 J. Legal Educ. 167, 179 (1989) ("For many legal transactions, prepared plans, such as precedent files, precedent documents, and procedures checklists, already exist."); Katharine Rosenberry, Organizational Barriers to Creativity in Law School and the Legal Profession, 41 Cal. W. L. Rev. 423, 425 (2005) (noting that for "fenderbender cases[, t]he complaints were very similar, so it was not necessary to be particularly creative when drafting answers to the complaints.").

^{34.} See SOMETHING TO BELIEVE IN, supra note 20, at 8 (defining traditional professional practice as "technical expertise put at the disposal of clients [or] patients").

necessary first step is to define what those interests are. Despite a history of paternalism, ³⁵ both medicine and law now explicitly endorse a more active decision-making role for the principal. The agent may outline possible options and make a recommendation, but ultimately, it is the principal who determines what a favorable outcome looks like. ³⁶ There is essentially a division of responsibility: the principal defines the goals of care, while the means of achieving those goals are primarily left to the agent. ³⁷ Typically, principals' goals involve straightforward objectives like recovering from an illness or receiving a favorable verdict at trial, but some principals have more idiosyncratic desires.

Danielle Ofri recounts the curious dilemma faced by Mr. Ray, a man with severe Tourette's syndrome.³⁸ Ray's medication suppressed his expletive-laden outbursts, which allowed him to maintain a career, but he complained that the drug also dampened his improvisational skills as a jazz drummer. Dr. Ofri indicates that the standard medical response would be to "nod[] sympathetically about having to take the bad with the good."³⁹ Instead, Ray's doctor worked with him to devise and test a medication schedule designed to control his disease during the workdays, but which tapered off on weekends when he played music. Dr. Ofri lauds the doctor's creativity in "look[ing] beyond the standard definitions of 'treatment success' and 'medication side-effects."⁴⁰

For a similar example in law, consider a defense attorney who must balance the efficient and certain resolution offered by a plea bargain with the desires of clients who value their "day in court." Margareth Etienne describes clients who saw testimony as a way to "express themselves," and appreciated their lawyer

^{35.} See Edward Krupat et al., The Practice Orientations of Physicians and Patients: The Effect of Doctor-Patient Congruence on Satisfaction, 39 PATIENT EDUC. & COUNSELING 49, 50 (2000) (describing "the classic paternalistic doctor-patient relationship in which... the patient is expected to defer to the physician's judgement"); Paul R. Tremblay, Toward a Community-Based Ethic for Legal Services Practice, 37 UCLA L. REV. 1101, 1150 (1990) (noting concern over "the general specter of lawyer paternalism").

^{36.} CODE OF MED. ETHICS Opinion 10.01 (Am. Med. Ass'n 1992) ("The patient has the right to make decisions regarding the health care that is recommended by his or her physician."); MODEL RULES, *supra* note 1, 1.2 cmt. para. 1 ("[T]he lawyer shall consult with the client" regarding "the means by which the client's objectives are to be pursued," but the client has "the ultimate authority to determine the purposes to be served by legal representation.").

^{37.} See SOMETHING TO BELIEVE IN, supra note 20, at 2 ("Conventional... lawyering involves the deployment of a set of technical skills on behalf of ends determined by the client, not the lawyer.").

^{38.} See Danielle Ofri, How Creative Is Your Doctor?, N.Y. Times: Well, (Mar. 14, 2013, 11:20 AM), http://well.blogs.nytimes.com/2013/03/14/how-creative-is-your-doctor.

^{39.} Id.

^{40.} Id.

^{41.} See Margareth Etienne, The Ethics of Cause Lawyering: An Empirical Examination of Criminal Defense Lawyers as Cause Lawyers, 95 J. CRIM. L. & CRIMINOLOGY 1195, 1213–14 (2005).

"put[ting] on a show" even if they "knew the chances of winning were very, very low."42

This type of creative practice introduces non-standard care processes, but is still firmly within the world of practice because the services, however unconventional they may be, are entirely devoted to furthering the interests of the principal.

B. Innovative Practice

The idiosyncratic principal represents an alternative approach within routine practice because the agent deviates from the profession's standard solution for the principal's problem. A more substantive deviation involves novel developments aimed at addressing the common needs of a *class* of principals. As agents develop expertise in sorting principals into categories, they may notice recurring problems for which there is currently no effective solution. An imaginative professional engages in "innovative practice" by conceiving a novel solution to a problem that is held in common by a group of patients or clients. ⁴³

Jeffrey Katz and colleagues, for example, describe the innovative use of orthopedic surgery as a palliative tool. ⁴⁴ A 79-year-old woman presented to her rheumatologist with debilitating hip pain, but she was an unsuitable candidate for total joint replacement by traditional standards because she also had advanced cancer. ⁴⁵ Nonetheless, Dr. Katz's team discussed hip replacement as a way to improve her quality of life, and the patient expressed "a strong preference for surgery" despite the increased risks involved and her short expected lifespan. ⁴⁶ She tolerated the procedure well and enjoyed two years of pain relief and improved mobility before succumbing to cancer.

Both routine practice and innovative practice focus on the needs of individual principals. What makes this case different from the creative practice of Mr. Ray's physician in the previous section is its broad applicability. All medical care is ultimately aimed at promoting patient wellbeing, and recent decades have seen a trend toward a more subjective, patient-centered conception of what

^{42.} *Id*.

^{43.} See Nathanson, supra note 33, at 176 ("The more one is familiar with standard solutions, the better one is able to draw on them" to "develop[] new solutions or options for solving problems.").

^{44.} See Jeffrey N. Katz et al., Elective Palliative Total Hip Replacement in a Patient with Lymphoma and Advanced Lung Cancer, 59 ARTHRITIS CARE & RES. 1194 (2008). The authors note that "[t]otal hip replacement has not traditionally been regarded as a palliative treatment." Id. at 1195.

^{45.} Id. at 1195 ("[D]isorders that threaten overall survival have long been regarded as contraindications to total joint replacement.").

^{46.} Id. at 1194-95.

"wellbeing" means.⁴⁷ Even with that general principle in the background, however, Mr. Ray's highly personalized pharmacological schedule designed to accommodate his unique professional and creative pursuits represents a much more patient-specific care outcome than the hip replacement described by Dr. Katz.

Terminally ill patients who suffer from treatable chronic conditions are common in medical practice, 48 and an encounter with a single patient was enough for Katz and colleagues to conclude that "a wide range of elective procedures traditionally contraindicated in patients with terminal illness may in fact be entirely appropriate when viewed in a palliative care context." This type of extrapolation fits neatly within the Belmont Report's conception of "generalizable knowledge," particularly since the authors expressed their conclusion in the language of "theories, principles, and statements of relationships" that were intended to generalize their experience for a broader audience and broader applications. 50

This observation underscores the true distinguishing feature of innovative practice. Though some types of routine practice may introduce novel elements, innovative practice lends itself to the creation of generalizable knowledge, and the agent may well have those broader concerns in mind while working on behalf of a particular principal. The principal's welfare remains the primary goal, but the specific case helps the agent devise new approaches that will benefit likesituated principals in the future. Section II.C will explore a comparable example of innovative practice in transactional corporate law, where attorneys "develop[] new legal devices and strategies to meet the perceived general needs of their corporate clients." ⁵¹

C. Experimentation

At the far end of the spectrum lies "experimentation," a category of professional activity dedicated to rigorously testing novel developments in

^{47.} See, e.g., President's Comm'n for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, Making Health Care Decisions: The Ethical and Legal Implications of Informed Consent in the Patient-Practitioner Relationship 2 (1982) (noting that the duty of informed consent for medical treatment is premised on the twin principles of patients' "personal well-being and self-determination").

^{48.} Cf. Katz et al., supra note 44, at 1195 ("[T]he co-occurrence of advanced cancer and advanced arthritis is not unusual.").

^{49.} *Id.* at 1194. The authors also note that their conclusion "raise[s] new questions about the risks, benefits, costs, and cost effectiveness of such interventions in the palliative care setting." *Id.* at 1195.

^{50.} See Belmont Report, supra note 8.

^{51.} Michael J. Powell, *Professional Innovation: Corporate Lawyers and Private Lawmaking*, 18 L. & Soc. INQUIRY 423, 447–48 (1993).

technology, process, or doctrine. Formal clinical research is the purest form of experimentation in medicine. An equivalent activity in the law is impact litigation brought with the goal of establishing a particular precedent, which I will discuss in the context of both corporate law and cause lawyering. As in innovative practice, testing the untested necessarily involves uncertainty; the defining feature of experimentation is its concrete focus on the pursuit of generalizable knowledge or impact.⁵²

The two categories examined above carry the label of "practice" because they ascribe primacy to the interests of the principal. The principal is by no means irrelevant in experimentation,⁵³ but has become subsidiary to the interests of the broad class of individuals to which she belongs. A patient comes to represent a particular disease profile or a demographic subpopulation; a client becomes a face for the common legal struggles of a group united by race or corporate structure. In this relationship, the principals are not autonomous decision makers who define the goals of care or representation, but rather provide a vehicle for achieving the agent's goals.⁵⁴ In effect, the agent shifts the focus of

^{52.} See supra text accompanying notes 11–14. Impact litigation creates knowledge in the sense of precedent that defines what the law is, as discussed in the introduction. See also William B. Rubenstein, Divided We Litigate: Addressing Disputes Among Group Members and Lawyers in Civil Rights Campaigns, 106 Yale L.J. 1623, 1632 (1997) (discussing civil rights cases that "are brought with the intention of establishing a legal precedent that will improve a group's social situation and thus they aim to have an effect on other pending cases or on future cases"). For these lawyers, establishing precedent is the ultimate goal, rather than an incidental feature of client service. See Something to Believe In, supra note 20, at 3 (noting that "cause lawyering is associated with both intent and behavior").

^{53.} Indeed, identifying and recruiting the appropriate principals can be a major challenge in clinical research. See, e.g., Marlene H. Peters-Lawrence et al., Clinical Trial Implementation and Recruitment: Lessons Learned from the Early Closure of a Randomized Clinical Trial, 32 CONTEMP. CLINICAL TRIALS 291, 291 (2012) (noting "multiple barriers to patient accrual" that caused a study to be "terminated early due to low enrollment"). Cause lawyers, meanwhile, not only hope for clients who serve as a good face for the cause, see, e.g., Nikole Hannah-Jones, Race Didn't Cost Abigail Fisher Her Spot at the University of Texas, ATLANTIC WIRE, Mar. 18, 2013, http://www.theatlanticwire.com/national/2013/03/abigail-fisher-university-texas/63247/ ("When the NAACP began challenging Jim Crow laws across the South, it ... meticulously selected the people who would elicit both sympathy and outrage, who were pristine in form and character."), but they must also contend with the threshold of constitutional standing, see U.S. Const. art. III, § 2; see also Lujan v. Defenders of Wildlife, 504 U.S. 555, 573–74 (1992) (noting that a plaintiff "seeking relief that no more directly and tangibly benefits him than it does the public at large does not state an Article III case or controversy").

^{54.} See Something to Believe In, supra note 20, at 2 (explaining that cause lawyers use "legal skills to pursue ends and ideals that transcend client service" because they have broader social goals in mind); Howard Brody & Franklin G. Miller, The Clinician-Investigator: Unavoidable but Manageable Tension, 13 Kennedy Inst. Ethics J. 329, 334 (2003) ("Clinical medicine is an activity designed to produce therapeutic benefits for individual patients. Clinical research is an activity designed to produce generalizable knowledge to inform the care of future patients.").

professional duty from principal to principles.

"Success" here is a trickier concept to define than in the realm of practice, where the goals of representation are defined by the principal himself. In clinical research, the goal is to produce meaningful generalizable knowledge with the potential to improve the processes of care. Measures like methodological rigor and internally consistent results serve as a proxy for accuracy, 55 an objective assessment of whether the study actually measures what it purports to measure. Beyond that, however, researchers also strive for subjectively "good" results, those with social utility that answer unaddressed questions or that challenge conventional wisdom with provocative findings. 56

Lawyers use impact litigation to change the law, whether on behalf of a corporate client, a social cause, or an ideological mission. Some judicial decisions have an immediate impact,⁵⁷ but many do not, whether because the verdict simply affirms the status quo or because vague language in support of abstract legal rights fails to change the situation on the ground.⁵⁸ Meanwhile, each new appellate decision adds a new layer of precedent that helps to shape the law for future litigants. Many holdings end up being clarified, reinterpreted, or reaffirmed in subsequent decisions,⁵⁹ so dedicated lawyers must be vigilant in ensuring enforcement of the laws they like and challenging the laws they don't.

In both fields, the goals of experimentation are defined by the agents rather than the principals, though the principals may well share those goals in certain instances. Though the experimentation may occur within the bounds of the principal-agent relationship, this type of work dissolves the standard "goals vs. means" division of responsibilities. Instead, the agent defines both the ends being pursued and the strategy for pursuing them.

^{55.} See Peter Jüni, Assessing the Quality of Controlled Clinical Trials, 323 BMJ 42 (2001).

^{56.} The National Institutes of Health (NIH), for example, assesses research grant applications based on a measure of "overall impact" that takes into account factors like "significance" and "innovation." See Nat'l Insts. Health, NIH Grants Policy Statement, HHS at I-51 to -52 (Oct. 1, 2012), http://grants.nih.gov/grants/policy/nihgps_2012/nihgps_2012.pdf.

^{57.} Roe v. Wade, for example, was "a moment of high drama... because in its wake not a single state abortion statute remained constitutional." Nan D. Hunter, Lawyering for Social Justice, 72 N.Y.U. L. REV. 1009, 1013 (1997).

^{58.} See GERALD N. ROSENBERG, THE HOLLOW HOPE: CAN COURTS BRING ABOUT SOCIAL CHANGE? 421 (2008) (rejecting the courts as vehicles for social change). But see Hunter, supra note 57 (arguing that litigation complements political mobilization by providing a vocabulary of rights, a motivational focal point, and salience in the media).

^{59.} See MICHAEL MELTSNER & PHILIP G. SCHRAG, PUBLIC INTEREST ADVOCACY: MATERIALS FOR CLINICAL LEGAL EDUCATION 77 (1974) (noting the extensive rounds of school desegregation litigation following Brown v. Board of Education aimed at clarifying and enforcing that decision).

II. THE LOCI OF INNOVATION

At a conceptual level, innovation and experimentation are defined by a degree of abstraction from the individual needs of specific principals. Beyond the necessary outlook and intent, however, successful innovations also depend on a high level of professional expertise⁶⁰ and on certain requisite resources, both financial and otherwise. As a result of these pragmatic considerations, innovative practice and experimentation tend to be concentrated in a small number of conducive professional practice settings.

The existence of a small community of innovators produces a certain degree of homogeneity, whether because like-minded individuals are simply drawn to one another or perhaps due to an acculturation of new arrivals. These relationships reflect a central tension: professionals collaborate with others in the interest of furthering shared goals, but they may also feel a competitive urge to be the first with a new idea or the best in their field. Innovation in medicine aptly reflects this tension, while the two legal tracks lean in opposite directions. Cause lawyers tend to band together to prioritize their broader mission, while experimenting corporate lawyers face heightened competition because their industry emphasizes profit incentives for both firms and individuals.

A. Medical Innovation in the Ivory Tower

Academic medical centers have traditionally been the main source of innovation in American medicine. The twin roles of clinical faculty member and clinical researcher developed in tandem in American medical schools around the turn of the twentieth century, ⁶¹ allowing accomplished physicians to build careers around educating students and advancing the state of knowledge in their area of specialization. Academia's major role in innovation and research has persisted because it provides a centralized location for imaginative physicians, as well as the resources necessary for medical innovation and investigation.

1. Experimentation: Administrative and Financial Support for Clinical Research

It is widely recognized that clinical trials are primarily concentrated at

^{60.} Okamoto, *supra* note 16, at 500 ("An expert draws on prior solutions to comparable problems but ultimately must proffer a novel solution suited to the particular context of the particular situation."); *see also* Brody & Miller, *supra* note 54, at 331 (explaining that the physicians conducting research on a given disease are often those most knowledgeable about it); Rosenberry, *supra* note 33, at 427 ("[A] depth of knowledge in [the] field" is "essential for creativity.").

^{61.} See A. McGehee Harvey, Science at the Bedside: Clinical Research in American Medicine, 1905-1945, at 183 (1981).

academic medical centers.⁶² The "supportive clinical research infrastructure" at these institutions furnishes the key resources of time and money.⁶³ Academic researchers are expected to conduct research as part of their job description, whereas community physicians would have to take time out from private practice.⁶⁴ The complexity of compliance with research protocols and regulations means that "repeat player" institutions benefit from institutional memory and administrative support for grant applications and protocol review. As for financial support, many academic institutions fund research activities directly.⁶⁵ More importantly, however, the availability of advanced facilities, skilled clinicians, and methodological experts makes the institutional environment conducive to securing grant funding from outside organizations.⁶⁶

2. Innovative Practice: Broad Mindset and Meaningful Impact

Physicians in all settings must contend with a continuous influx of new medical knowledge and endless variation in patient profiles. Many respond with constant adaptations in their practice techniques.⁶⁷ These modifications fall into the category of innovative practice if they are inspired by individual patients, but pursued with broader goals in mind. Attempting to assess and track innovative practice is a more challenging endeavor than examining clinical research activity, however, because innovative practice has hazier boundaries⁶⁸ and does not

^{62.} See FORUM ON DRUG DISCOVERY, DEV. & TRANSLATION, INST. MED., TRANSFORMING CLINICAL RESEARCH IN THE UNITED STATES: CHALLENGES AND OPPORTUNITIES: WORKSHOP SUMMARY 22 (2010), (noting "[t]he limited involvement of community physicians in clinical research"); Victor J. Dzau et al., Transforming Academic Health Centers for an Uncertain Future, 369 NEJM 991, 991 (2013) ("Academic health centers (AHCs) have long led the advancement of science and medicine by pursuing missions of clinical care, research, and education."). But see Lois Snyder & Paul S. Mueller, Research in the Physician's Office: Navigating the Ethical Minefield, 38 HASTINGS CTR. REP. 23, 23 (2008) ("[M]any industry-funded trials [now] take place in physicians' offices and private testing centers through contract research organizations") (emphasis added).

^{63.} FORUM ON DRUG DISCOVERY, DEV. & TRANSLATION, *supra* note 62, at 24 (noting that academic medical centers provide "administrative and financial" support).

^{64.} Id. at 23-24.

^{65.} Id. at 24.

^{66.} See Nat'l Insts. Health, supra note 56, at I-51 to -52 (noting that NIH grant reviewers look for investigators with "appropriate experience and training," as well as "institutional support, equipment and other physical resources").

^{67.} See William M. Sage, Physicians as Advocates, COLUM. L. SCH. REP., Winter 2000, at 60 ("[P]hysicians view their daily decisions as demanding constant adaptation and compromise"); Saumita Saha, Surgical Innovation, 71 INDIAN J. SURGERY 6, 7 (2009) ("Most surgeons have spontaneously innovated at some point or other.").

^{68.} See Martin F. McKneally & Abdallah S. Daar, Introducing New Technologies: Protecting Subjects of Surgical Innovation and Research, 27 WORLD J. SURGERY 930, 930 (2003) (noting that surgeons often find themselves in a "large gray zone" between "an evolutionary variation on a standard procedure" and "the first stage of what should become recognized as a formal surgical research project").

necessarily involve rigorous documentation or publication of results. Still, these clinical innovations may be more probable in academic settings, and are most likely to be widely noticed when developed or adopted there.

The academic environment emphasizes a broad and forward-thinking outlook: medical faculty members impart generalized knowledge to students, and medical researchers create generalizable knowledge in their studies. Physicians in academic institutions often take on at least one of these roles at least some of the time, and are constantly surrounded by people who perform both. ⁶⁹ In this context, "expertise" consists of technical proficiency with the clinical craft, as well as the requisite imaginative capacity and broad perspective to innovate on behalf of a population of patients.

Moreover, academic physicians who innovate are best situated to disseminate new information and to formally test novel developments in clinical trials. Prior to the modern era of clinical research regulation, many critically important developments in medicine arose "through an informal, unregulated innovation process," typically at the hands of an academically affiliated physician. This may be due to the ways in which academic centers attract creative individuals and encourage innovative work. It could also be an issue of sampling bias, since innovations developed in private practice are less likely to be noticed and promoted than those arising out of well-connected academic centers. Nonetheless, it seems plausible that both medical innovation and experimentation are anchored in academic medical centers. The two activities are inherently linked, since one may well lead to the other, and both are facilitated by the nexus of technology, funding, and interdisciplinary expertise.

^{69.} See Mehmet Toner & Ronald G. Tompkins, Invention, Innovation, Entrepreneurship in Academic Medical Centers, 143 SURGERY 168, 170 (2008) ("[T]he top academic medical centers have expertise in basic biological science, technology, and clinical medicine..., which creates a very unique and truly multidisciplinary environment for innovation.").

^{70.} See Federal Policy for the Protection of Human Subjects ("Common Rule"), supra note 10 (noting that the current regulatory regime was "heavily influenced" by the Belmont Report, written in 1979). Subsection IV.A.1, infra, discusses the history of clinical research regulations in more detail.

^{71.} McKneally & Daar, *supra* note 68, at 930. This "unregulated process" is responsible for "[m]ost of the important advances in the history of medicine, such as anesthesia, appendectomy, antibiotics, intensive care, and immunization." *Id.*

^{72.} See, e.g., Joseph Ben-David, Roles and Innovation in Medicine, 65 Am. J. Soc. 557, 557 (1960) (noting that medical innovations have often been developed by "practitioners who were involved in research and academic teaching"); Shuai Xu et al., Origins of Medical Innovation: The Case of Coronary Artery Stents, 5 J. Am. HEART ASS'N 743, 743 (2012) ("Coronary artery stent technology first arose from individual physician-inventors within academic medical centers and their associated private companies.").

^{73.} See Riskin et al., supra note 15, at 690 (noting that community physicians may not have "the intellectual interaction and academic connections necessary to have [their] invention noticed").

3. Motivation: Of Patients, Pride, and Profits

Physicians may be motivated by a number of factors to pursue novel developments in medicine. There is the obvious goal of improving care for patients, and indeed, innovation seems to foster collaboration to that end. Physicians and researchers from different institutions may work together on new studies⁷⁴ or visit each other's practices to learn novel techniques.⁷⁵ Professional societies organized around particular methodologies and diseases can "establish standards and serve as forums for the discussion of new work."⁷⁶

It would be naïve, however, to neglect other, less altruistic potential motivations, such as the pursuit of prestige and professional advancement.⁷⁷ Commentators have also noted the potential for heightened competition driven by increasingly important external private interests in medical innovation.⁷⁸ At a time of dwindling government support for medical research,⁷⁹ the medical device and pharmaceutical industries offer handsome compensation to physicians who assist in developing new products for commercial gain.⁸⁰ The goals of medical innovation may also shift as modern health reform continues to emphasize cost reduction and quality standards.⁸¹

^{74.} See FORUM ON DRUG DISCOVERY, DEV. & TRANSLATION, supra note 62, at 8–9 (praising long-term collaboration agreements in clinical research networks).

^{75.} See McKneally & Daar, supra note 68, at 932.

^{76.} See HARVEY, supra note 61, at 128.

^{77.} See Norman G. Levinsky, Nonfinancial Conflicts of Interest in Research, 347 NEJM 759, 759 (2002) (noting "nonfinancial conflicts of interest" in clinical research including "personal benefits from publications and acquisition of grants"); see also HARVEY, supra note 61, at 59 (explaining that competition has always been present in academic medicine because "[s]uccessful scientists were rewarded with university chairs and facilities"); Riskin et al., supra note 15, at 688.

^{78.} See, e.g., McKneally & Daar, supra note 68, at 932; see also William J. Broad, Billionaires with Big Ideas Are Privatizing American Science, N.Y. TIMES, Mar. 15, 2014, http://www.nytimes.com/2014/03/16/science/billionaires-with-big-ideas-are-privatizing-american-science.html (noting that wealthy philanthropists account for a growing share of research funding, and their "personal setting of priorities . . . troubles some in the science establishment").

^{79.} See Jocelyn Kaiser, NIH Details Impact of 2013 Sequester Cuts, SCIENCE: SCIENCEINSIDER (May 8, 2013, 3:30 PM), http://news.sciencemag.org/scienceinsider/2013/05/nih-details-impact-of-2013-seque.html.

^{80.} See Levinsky, supra note 77, at 759 (noting "[t]he dramatic growth of relations between investigators and industry"). Financial conflicts of interest are a perennial topic of concern in both clinical trials and medical practice. See generally Sheila R. Shulman & Andrea Kuettel, Drug Development and the Public Health Mission: Collaborative Challenges at the FDA, NIH, and Academic Medical Centers, 53 BUFF. L. REV. 663 (2005) (reviewing the recent history of regulations and institutional policies on conflicts of interest at federal agencies, private companies, and universities). See also Shantanu Agrawal et al., The Sunshine Act—Effects on Physicians, 368 NEJM 2054 (2013).

^{81.} See Dzau et al., supra note 62; Riskin et al., supra note 15, at 688.

B. Public Interest Law: Ideological Commitment as a Non-Financial "Resource"

Cause lawyers often pursue their ideological goals through the courts rather than (or in addition to) the legislature. Their work is thus inherently innovative, since they seek social change within the existing legal framework by reinterpreting or striking down existing laws. This activity goes beyond settling individual matters for individual clients, and targets broad visions of progress by changing what the law is or what the law means. By organizing around particular issues, cause lawyers build expertise and institutional memory. Their relationship with "resources," however, is slightly more complex.

Public interest law organizations typically operate under tight financial constraints: they are often not reimbursed directly from their work, ⁸² and they engage in "non-revenue-generating" activities like coalition building, media work, community outreach, and education. ⁸³ Many are registered non-profits, and they build their budgets around private contributions and public funds. ⁸⁴ The following examples illustrate how cause lawyers leverage limited financial inputs and non-monetary resources to further their missions.

1. Innovative Practice: Public Defenders and Direct Client Representation

Criminal defense and legal aid are public interest models based on direct client service rather than impact litigation. Nonetheless, client-service attorneys often have "strong ideological and political beliefs that they seek to effectuate through their work." They engage in innovative practice to the extent that they "represent individuals, but over time tend to think of these individuals as a class."

Margareth Etienne describes a group of public defenders who noted a trend among their Spanish-speaking and bilingual clients: those with rudimentary English proficiency were typically read their Miranda rights in English, leaving some of them bewildered and uninformed.⁸⁷ The attorneys acknowledged that

^{82.} They may, however, receive attorney's fees in certain types of cases. See Catherine R. Albiston & Laura Beth Nielsen, Funding the Cause: How Public Interest Law Organizations Fund Their Activities and Why It Matters for Social Change, 39 L. & Soc. INQUIRY 62, 75–76 (2014) (reporting that public interest law organizations received an average of 5% of their budgets from attorney's fees).

^{83.} Id. at 62-63.

^{84.} See id. at 76 (noting in Figure 2 that the budgets of public interest law organizations, on average, depended primarily on public funds and donations from foundations and individuals). Scheingold and Sarat note that public agencies and public interest organizations are the "classic sites" for cause lawyers to practice, SOMETHING TO BELIEVE IN, *supra* note 20, at 80, but that cause lawyers can also be found in corporate pro bono programs and in small law firms, *id.* at 73.

^{85.} Etienne, *supra* note 41, at 1226.

^{86.} Id.

^{87.} See id. at 1240.

this practice likely fell within the bounds of the "law on the books," but together, they "devised a strategy to change the 'law on the streets." At any trial with a Spanish-speaking or bilingual defendant, they made it a habit to inquire whether the Miranda rights had been read in Spanish. It is unlikely that this simple question altered the outcome in any individual case, but over time, it became standard practice for law enforcement officials to read the rights in both languages to avoid any potential complications at trial.

One attorney acting alone would likely not have had much of an impact on the system, but the public defenders drew on the "resource" of a community united by a particular cause in order to affirmatively pursue a shared mission of generalizable impact. Still, the defenders never lost sight of their role as practitioners; they considered broader change to be a subsidiary goal and only pursued it to the extent that it would not negatively affect the day-to-day work of helping individual defendants.

2. Experimentation: Impact Litigation

Impact litigation can be a powerful tool in creating social change, but it can also be a protracted and expensive endeavor as lawyers shepherd a case through multiple courts over a number of years, often while also coordinating an associated media campaign. The public defenders in the last example built strength from within their own branch of the profession, coordinating laterally across offices; litigation-oriented public interest organizations, on the other hand, typically draw on ideological sympathies to marshal support from external sources.

Public interest organizations often draw their arguments from recent developments in academic legal thought, and law professors may be called upon to help with developing briefs, mooting oral arguments, or even arguing cases. Similarly, private attorneys who sympathize with the goals of a test case may provide pro bono assistance. These lawyers may contribute appellate experience, local knowledge, or legal advice for facets of the case that fall outside the cause lawyers' areas of expertise. Corporate pro bono programs can

^{88.} Id. at 1240-41.

^{89.} Id

^{90.} *Id.* at 1242 ("The strategy was viewed as a harmless one even though the defendants in the cases in which it was used would not receive a benefit.").

^{91.} *Id.* Not only did Spanish-speaking law enforcement officials begin routinely providing the Miranda rights in Spanish, but non-Spanish-speaking officials started carrying wallet-sized cards with a Spanish translation of the rights. *Id.*

^{92.} See infra notes 96 and 97.

^{93.} See Rubenstein, supra note 52, at 1633.

^{94.} See, e.g., Martha F. Davis, Our Better Half: A Public Interest Lawyer Reflects on Pro Bono Lawyering and Social Change Litigation, 9 Am. U. J. GENDER SOC. POL'Y & L. 119, 121–22

also offer traditional legal resources like research support and a physical workspace, costs that may exceed a public interest organization's budget. ⁹⁵ Lawrence v. Texas ⁹⁶ and Griswold v. Connecticut ⁹⁷ were high-profile cases that emerged out of these types of collaboration.

The government is a popular target for test cases, which may target statutes, public benefit schemes, or individual actions by public officials. In some instances, the singular focus and intensive preparation of the cause lawyers is met with a relatively lackluster defense from the state's attorneys, for whom the case is but one of their many responsibilities. In some instances, however, government officials may themselves be sympathetic with the cause lawyers' mission; they may fulfill their role out of a sense of duty, but do what they can to assist in moving the case along. In cases like these, the "resource" of ideological sympathy extends across ostensibly adversarial lines, drawing assistance and support from law enforcement or judicial officials in furthering the innovative goal.

^{(2001) (}describing a women's rights group that received pro bono assistance in navigating the bankruptcy court system).

^{95.} SOMETHING TO BELIEVE IN, supra note 20, at 74.

^{96. 539} U.S. 558 (2003) (declaring the unconstitutionality of state prohibitions on homosexual sodomy). For an in-depth overview of the case and its social context, see DALE CARPENTER, FLAGRANT CONDUCT: THE STORY OF LAWRENCE V. TEXAS (2012). The national LGBT rights organization Lambda Legal was involved in the case from the beginning, but relied on private local attorneys to help them "navigate[] the lower-court minefield of Texan justice." Id. at 130. Lambda chose legal arguments about sex-based classifications that had "long been a favorite of legal academics," id. at 156, and law professors were actively involved in helping the attorneys prepare for the case, id. at 213. The case was argued in the Supreme Court by a pro bono attorney with extensive Supreme Court experience. Id. at 211.

^{97. 381} U.S. 479 (1965) (finding a constitutional right for married couples to access birth control). Yale Law School Professor Fowler Harper was a "principal legal strategist" for the Planned Parenthood League of Connecticut in the 1950s and 1960s as it planned a legal assault on anti-contraception laws. John W. Johnson, *Griswold v. Connecticut*: Birth Control and the Constitutional Right of Privacy 39 (2005). As Harper's health declined, his Yale colleague Thomas Emerson, an experienced appellate advocate, took over leadership of the case. *See id.* at 103–05.

^{98.} See CARPENTER, supra note 96, at 214-16; JOHNSON, supra note 97, at 116.

^{99.} See, e.g., Carpenter, supra note 96, at 145–46 (noting that the Texas prosecutor assigned to the sodomy case was a lesbian; she "did not go out of her way to create difficulties for the defense team, and assisted it in understanding the procedures of the county criminal court"); Johnson, supra note 97, at 81–83 (noting that Planned Parenthood personnel were permitted to "essentially write the script for the arrest" by cooperative police officials); see also Lyle Denniston, Constitution Check: Must Government Lawyers Defend Laws They Deem to Be Invalid?, Constitution Daily (Feb. 25, 2014), http://blog.constitutioncenter.org/2014/02/constitution-check-must-government-lawyers-defend-laws-they-deem-to-be-invalid/ (discussing state and federal attorneys general who chose not to defend same-sex marriage laws against constitutional challenges in court).

3. Motivation: Priority on Principles

The typical cause lawyer is a person who decided to pursue social justice rather than a potentially lucrative career in private practice. Of Given this framework of self-sacrifice and dedication, it should come as no surprise that cause lawyers tend to work together in furthering their mission. The preceding subsections discuss collaboration within organizations and with external supporters, but there is also typically a high level of coordination across public interest organizations on questions like long-term legal strategy and client selection. Disputes do arise between individual attorneys or rival organizations over points of legal strategy or issues of attribution and leadership, but the overall tenor may often be one of collaboration rather than competition.

C. Corporate Law: On-the-Ground Expertise

The foregoing sections outline a top-down approach to innovation that often involves academic experts, who either do the innovating themselves or take a supportive role. In this section, we trace a second track of innovation in law that is rooted in private practice. These novel developments "are not the products of law professors or researchers so much as the work of lawyers striving to further the interests of their clients," representing a "bottom-up process of lawmaking and knowledge production." This client-centered model is similar to the innovative practice of the public defenders discussed in Subsection II.B.1. The main difference is the identity of the clients: public defenders innovate on behalf of indigent clients, while innovation in private practice typically benefits wealthy corporate entities.

^{100.} Typically, public interest lawyers have affirmatively chosen to pursue that career rather than falling into it as a back-up option. As compared to private practice, public interest positions are fewer in number, lower-paying, and less likely to be widely advertised or coordinated by a dedicated recruitment team. *See generally* Career Dev. Office, *Public Interest Careers*, YALE L. SCH. 11–14 (Sept. 2013), http://www.law.yale.edu/documents/pdf/CDO_Public/CDO_PI_Careers_Public.pdf.

^{101.} See, e.g., CARPENTER, supra note 96, at 128 (explaining that several national LGBT rights groups met semiannually "to share information about cases, discuss strategies, and coordinate efforts as much as possible"); Rubenstein, supra note 52, at 1629 (describing a "conference that the NAACP held in Chicago in 1945 to help coordinate the many restrictive covenant cases that were percolating throughout the country").

^{102.} See Rubenstein, supra note 52, at 1626 (describing the challenges of using individual litigation to create social change on behalf of a community, including "[c]ommunity member disputes concerning the goals of litigation" and "attorney disputes about the methods of litigation"); id. at 1627–31 (noting Thurgood Marshall's frustration with attorney George Vaughn, who bristled at comporting with the NAACP's carefully orchestrated strategy to challenge racially restrictive covenants).

^{103.} Powell, supra note 51, at 448.

1. Innovative Practice: Creative Solutions for Corporate Clients

The practice of law has become increasingly segregated along lines defined by categories of clients. Solo practitioners and small firms tend to represent individual clients and small businesses, while bigger firms more often focus on corporate clients and very wealthy individuals. ¹⁰⁴ As clients' wealth increases, so does the complexity of their legal issues. ¹⁰⁵ Big businesses certainly have many straightforward legal needs, ¹⁰⁶ but they often rely on "the counsel of specialists in those areas of practice that are relatively new or are characterized by a high degree of uncertainty." ¹⁰⁷ Disruptive innovations are concentrated among a small number of elite firms that attract graduates from top schools and clients who are willing to pay top dollar for their unique services. ¹⁰⁸ These firms also have the necessary resources for the intensive background research that may be required for developing new legal devices that need to withstand judicial challenge.

Academia is conspicuously absent from this description of corporate innovative practice. The ivory tower played an important role in medical innovation and cause lawyering, and there are certainly instances where legal academics perform a similar function in the world of corporate law and financial regulation. ¹⁰⁹ In general, though, academia plays a more peripheral role in this sphere. ¹¹⁰ During the wave of hostile corporate takeovers in the 1980s, for

^{104.} See Randolph N. Jonakait, The Two Hemispheres of Legal Education and the Rise and Fall of Local Law Schools, 51 N.Y.L. SCH. L. REV. 863, 869 (2006/07).

^{105.} Compare id. at 887 ("[T]he work of attorneys representing individuals is almost all legally routine."), with Milton C. Regan, Professional Responsibility and the Corporate Lawyer, 13 GEO. J. LEGAL ETHICS 197, 207 (2000) ("The rapid pace of change in the corporate world demands that lawyers create new legal forms and arrangements."), and Eric Mankin, Innovation in Practice: Why It's So Hard, 32 L. PRAC. 42, 42 (2006) ("Law firms introduce new legal services and products on an ongoing basis as part of their work with sophisticated clients in industries such as entertainment and financial services.").

^{106.} See George W. Dent, Jr., Business Lawyers as Enterprise Architects, 64 Bus. LAW 279, 318 (2009).

^{107.} Powell, supra note 51, at 450.

^{108.} See id.

^{109.} See, e.g., Kevin E. Davis, Contracts as Technology, 88 N.Y.U. L. Rev. 83, 121–22 (2013) (noting that "academics have generated at least a few examples of contractual innovations"); Ward Farnsworth, The Legal Academy and the Profession, in The Oxford Handbook of Legal Studies 6 (Peter Cane & Mark Tushnet eds., 2003) ("A number of important ideas in antitrust law were pressed by scholars in the 1960s and 1970s and then adopted fairly quickly by courts," which the author describes as "an exceptional case where the impact [of legal scholarship] has been large."); Lee Fang, The Scholars Who Shill for Wall Street, The Nation, Nov. 11, 2013, http://www.thenation.com/article/176809/scholars-who-shill-wall-street (explaining that legal academics' studies and opinions that critique financial regulations are increasingly being relied on, solicited, and even paid for by large corporations).

^{110.} See, e.g., Clair A. Hill, Introduction: Theory Informs Business Practice, 77 CHI.-KENT L. REV. 3, 3 (2001) ("In my years as a corporate law academic, I've been surprised at the paucity of interactions between those who study corporate law and those who 'do' it."). Indeed, the corpus of

example, a variety of documents were produced detailing the increasingly complex range of options for takeover strategies and defenses. These guides were typically authored by "expert practitioners, not academics."

The "most significant and controversial of the several new defensive antitakeover devices" was the shareholder rights plan, known as the "poison pill." The device was conceived by Wachtell Lipton Rosen Katz, one of "the dominant legal players in the hostile takeover game," in the midst of a "desperate takeover struggle" for one of its clients. Soon, however, the firm began recommending the pill as a protective measure for its other clients, and continued to add or modify features of the basic plan. This development proceeded "independent of the particular needs of . . . any . . . particular client. The firm was developing and refining the new legal device much as a manufacturing company might modify a new product after an initial market test." In this way, the firm's representation of an individual client served the dual purpose of supporting the client's specific business objectives, as well as building generalizable knowledge in the field of antitakeover defenses.

2. Experimentation: Litigation Arising Out of Practice

The process of introducing and tweaking the poison pill falls under the category of innovative practice because it constituted "private lawmaking on behalf of clients and in the course of [the] practice of law." However, any novel development in practice has the potential to be carried through into experimentation if challenged in court. Corporate attorneys who successfully

legal academia as a whole is often critiqued for being too disconnected from the real world of legal practice. *See* Farnsworth, *supra* note 109, at 1 (noting that legal academics "usually see little sign that anything they write is valued by the legal system or makes an impact on it"); *id.* at 7 ("[C]ommonly, hot academic fads are driven by or accompany a politics unpalatable to the legal system."); Adam Liptak, *The Lackluster Reviews that Lawyers Love to Hate*, N.Y. TIMES, Oct. 21, 2013, http://www.nytimes.com/2013/10/22/us/law-scholarships-lackluster-reviews.html ("Law reviews are not really meant to be read. They mostly exist as a way for law schools to evaluate law professors for promotion and tenure.").

^{111.} See Powell, supra note 51, at 448. The ensuing discussion focuses on Michael Powell's description of the firms involved in corporate takeover work in the 1980s, one of the "comparatively few" studies on the "process of innovation" in private law. Kettering, supra note 15, at 1554–55, 1555 n.2.

^{112.} Powell, *supra* note 51, at 448.

^{113.} See id. at 429. The poison pill established certain new shareholder rights that were contingent upon outside companies acquiring a certain percentage of stock. The rights were intended both to protect minority shareholders and to encourage the acquiring company to enter into negotiations early in the process. See id. at 435.

^{114.} Id. at 433.

^{115.} Id. at 434.

^{116.} Id. at 436-37.

^{117.} Id. at 427.

defend an innovation in court while assisting a particular client can thereby establish the innovation's legitimacy more broadly for use with other clients. 118

This is ultimately what occurred with the poison pill, with the Delaware Supreme Court defying expectations by officially sanctioning the device in 1985. Though the case concerned a single company's use of a shareholder rights plan to avert a hostile takeover, "the wider debate was couched in terms of [the] central social and economic values that were seen to be involved," just as cause lawyers often abstract away from their clients and focus on broader themes of social justice. Throughout this process, it was the "expert practitioners who [were] actively engaged in developing and reworking the law," with legal academics relegated to the position of "commentators and critics."

3. Motivation: Priority on Profit

Private law firms' motivation to innovate likely has less to do with an idealized notion of what corporate law should look like and more to do with pragmatic concerns about acquiring and retaining clients. Rather than responding to the needs of clients as they arrive, entrepreneurial firms proactively "develop[] new legal devices and strategies to meet the perceived general needs of their corporate clients" and market those innovations to drum up business. This process plays out at a micro level within firms as well, since individual attorneys must compete with each other to bring in new clients and establish rank in the firm. 125

Competition between and within firms has intensified in recent years in response to an increasingly globalized market with sophisticated and cost-conscious clients. ¹²⁶ The disaggregation and specialization of legal services and

^{118.} *Id.* at 429 ("If challenged and upheld by the courts [new practices or devices] become institutionalized in the common law.").

^{119.} See id. at 438–39 (discussing Moran v. Household International Inc., 490 A.2d 1059 (Del. Ch. 1985), aff'd, 500 A.2d 1346 (Del. 1985)).

^{120.} Id. at 438.

^{121.} See, e.g., CARPENTER, supra note 96, at 194 (noting that oral arguments in Lawrence v. Texas focused on the language of liberty and due process, and never explicitly mentioned sex or referred to the defendants by name); Rubenstein, supra note 52, at 1630–31 (describing how an unsophisticated lawyer cut through the technical legal arguments concerning restrictive covenants in a rousing peroration about racial equality).

^{122.} Powell, supra note 51, at 448-49.

^{123.} See id. at 447 (explaining that large firms in the 1980s "competed with each other over what exactly constituted the best legal product" for deterring hostile takeovers).

^{124.} *Id.*; see also id. at 442 ("Skadden Arps did not sit back and wait for clients to call but rather took the initiative to develop and promote its own plan, which it was careful to differentiate from other competing plans.").

^{125.} See id. at 427; Regan, supra note 105, at 198.

^{126.} See William D. Henderson & Rachel M. Zahorsky, Law Job Stagnation May Have

the rise of in-house legal counsel put additional pressure on firms to innovate on behalf of their corporate clients. ¹²⁷ To justify their high rates, they must add value beyond handling routine legal paperwork.

III. THE NATURE OF "TRUTH" IN MEDICINE AND LAW

Scientific experimentation does not proceed in a haphazard or lackadaisical fashion. While innovative practice may occur spontaneously as practitioners attempt to grapple with the problems presented to them, true experimentation is a more deliberate and deliberative endeavor. "[T]he structure of scientific experiments is fundamentally stable all across the basic-clinical spectrum," and involves a number of well-established steps for defining a hypothesis and research methods. Lawyers who bring test cases employ similarly rigorous methods in their attempts to experiment with the law through litigation. However, important differences arise out of the structure of the American legal system, highlighting a major divergence in what is otherwise a remarkably similar set of processes for innovation shared by the two professions.

Notably, though both professions use a carefully defined representation of reality as a starting point for their experiments, they diverge in the extent to which they strive for accuracy. Clinical research aims to uncover objective scientific facts. A new treatment will likely be ineffective if its creators have inaccurately assessed the nature of the disease or the biological mechanism targeted for intervention. In the law, however, academics and judges alike have moved away from a strict conception of fixed, objective "natural" law, and toward a more nuanced view of judicial decision making as influenced by

Started Before the Recession—And It May Be a Sign of Lasting Change, A.B.A. J. (July 1, 2011), http://www.abajournal.com/magazine/article/paradigm_shift/ (describing the "massive structural shift" in the legal profession); Regan, *supra* note 105, at 197–99 ("Competition among law firms for both clients and lawyers has intensified.").

^{127.} See Gillian K. Hadfield, Legal Infrastructure and the New Economy, 8 I/S: J.L. & POL'Y 1, 19 (2012) ("What the new economy enterprise needs from law is not just more of what the old economy enterprise needed; it needs things that are different."). The importance of innovation as a business strategy has led some to wonder about the possibility or desirability of patents on novel legal methods and strategies. See generally Stephanie L. Varela, Damned if You Do, Doomed if You Don't: Patenting Legal Methods and Its Effect on Lawyers' Professional Responsibilities, 60 FLA. L. REV. 1145 (2008).

^{128.} Joffe & Miller, *supra* note 4, at 34. These authors note that the scientific method has been fairly stable for over 100 years. *Id.* They outline the defining features of a scientific experiment as "(1) articulation of the research question or hypothesis; (2) specification of the experimental materials; (3) identification of the intervention under study; (4) stipulation of the experimental conditions . . . ; and (5) description of the methods for measuring study outcomes and other study data." *Id.*

^{129.} Cf. MELTSNER & SCHRAG, supra note 59, at 78 ("[M]any successful test cases are planned with great care."). Like scientists, the lawyers craft a hypothesis and devise a legal methodology in the abstract to address a particular legal question.

ideology, temperament, and non-legal "policy" considerations. ¹³⁰ Lawyers recognize the malleability and variability of legal "truths" across judges and over time, and incorporate that same malleability into their arguments to present the version of the case they think is most likely to sway the decision maker.

Undoubtedly, the two professions take opposite perspectives on the importance of fidelity to reality in their experimental set-ups. Both professions converge, however, on the challenges of translating innovations and experimental outcomes into the anticipated broader social benefit.

A. Negotiating Fact and Fiction

1. Practice: Emphasis on the Principal Means Adherence to Reality

In both medicine and law, agents learn to sort principals into categories as they attempt to determine the cause of this patient's distress and the cause of action best suited to that client's problem.¹³¹ This distillation leaves some commentators concerned about the extent to which we reduce the rich and varied experience of health and illness into lists of diagnoses and quantified biomarkers, or compress complex social structures and human narratives of struggle into bare-bones fact patterns and enumerated causes of action.¹³² Ultimately, though, practitioners are ethically beholden to each principal's needs *as defined by the principal*, ¹³³ meaning that any narrowing that occurs is in the service—and under the supervision—of the person whose identity is being narrowed. Professionals engaged in innovative practice may be mindful of the broader effects of novel developments, but they never lose sight of ensuring the successful resolution of each principal's individual case.

In experimentation, on the other hand, the principal is meant to be subsumed into the class of individuals that she represents. Professionals must smooth over individual distinctions and variations to discover generalizable medical truths and secure generalizable legal impacts. Here we see a divergence between medicine and law in the methods and motivations of experimentation.

^{130.} See, e.g., Note, Natural Law for Today's Lawyer, 9 STAN. L. REV. 455, 455 (1957).

^{131.} See supra notes 31-34 and accompanying text.

^{132.} See, e.g., Herbert A. Eastman, Speaking Truth to Power: The Language of Civil Rights Litigators, 104 YALE L.J. 763, 766 (1995) (decrying "the chasm separating what those clients told me about their lives and what I wrote to the court as factual allegations in the complaint—sterile recitations of dates and events that lost so much in the translation"). See generally Note, The Plaintiff as Person: Cause Lawyering, Human Subject Research, and the Secret Agent Problem, 119 HARV. L. REV. 1510, 1516–17 (2006) (discussing the concept of "narrative surrender" in law and medicine) [hereinafter The Plaintiff as Person].

^{133.} See supra notes 36 and 37 and accompanying text.

2. Clinical Research: Distortion Avoidance

Clinical researchers strive for accuracy in their results, since success is defined in part by how closely the study captures the real-life etiology of disease or mechanisms of recovery. The research community has long recognized the existence of bias ¹³⁴ and the limits of imperfect measurements. ¹³⁵ Researchers make every effort to minimize these distortions through rigorous study design, ¹³⁶ account for them in statistical methodology, ¹³⁷ and acknowledge them in their publications. ¹³⁸ In striving for accuracy, researchers engage in distortion avoidance, seeking to minimize any differences between their reported results and the reality those results purportedly describe.

3. Impact Litigation: Purposive Distortion

Litigators, by contrast, engage in *purposive* distortion. They selectively suppress and emphasize different aspects of the record, presenting the case as they'd like it to be perceived by judge, jury, and general public. Certain legal fictions are simply a fact of life, familiar common law heuristics roughly superimposed on reality for the sake of consistent and workable judicial decisions. Other distortions, however, may be introduced intentionally to present a compelling narrative or elicit certain questions of law.

In the book Flagrant Conduct, 140 Dale Carpenter recounts the events leading

^{134.} See generally STEPHEN B. HULLEY ET AL., DESIGNING CLINICAL RESEARCH (2011). The authors note that "chance, bias and confounding can all be reasons why a real association might be missed or underestimated." *Id.* at 141. They discuss sources of bias and error including confounding factors, *id.* at 132, the placebo effect, *id.* at 149, and self-reported questionnaires, *id.* at 9.

^{135.} See Donald L. Patrick & Richard A. Deyo, Generic and Disease-Specific Measures in Assessing Health Status and Quality of Life, 27 MED. CARE at S217, S225 (1989) (describing the requisite properties of a high-quality measurement tool, including "validity, reliability, responsiveness, effect size analysis, and generalizability").

^{136.} See, e.g., HULLEY ET AL., supra note 134, at 45 (discussing double-blind trials as a solution to differential bias).

^{137.} See, e.g., id. at 139 (discussing statistical adjustment to account for confounding factors).

^{138.} Peer-reviewed studies typically include a "limitations" section that explicitly enumerates potential sources of error, which serves as a note of caution about putting too much faith in any one study's results. See, e.g., JAMA Instructions for Authors, JAMA (last updated Mar. 11, 2014), https://jama.jamanetwork.com/public/instructionsForAuthors.aspx (requiring original research submissions to include "a comment section placing the results in context with the published literature and addressing study limitations").

^{139.} For several examples of legal fictions and an overview of recent theoretical perspectives on the subject, see Nancy J. Knauer, *Legal Fictions and Juristic Truth*, 23 St. Thomas L. Rev. 1, 1–5 (2010).

^{140.} CARPENTER, supra note 96.

up to the Supreme Court's decision in *Lawrence v. Texas*,¹⁴¹ which declared the unconstitutionality of state anti-sodomy laws. The Texas statute regulated sexual conduct, but the Lambda Legal attorneys and their pro bono and academic allies crafted legal arguments that emphasized intimate personal relationships and the importance of family.¹⁴² These themes were echoed and codified in Justice Kennedy's majority opinion.¹⁴³ According to Carpenter's research, however, the two men arrested for violating the Texas law were neither in a romantic relationship, nor had they even engaged in the alleged sexual activity.¹⁴⁴ For the purposes of challenging the law, all that mattered was that John Lawrence and Tyron Garner were arrested in the right place at the right time for the right reasons. Their attorneys entered a plea of "no contest" to preserve a clean factual record, ¹⁴⁵ then "abstracted away" from specific acts and specific defendants into lofty rhetoric about liberty and due process. ¹⁴⁶

Important decisions on emotionally fraught subjects like civil liberties often depend on lawyers' ability to successfully transcend the facts of the dispute at issue and redefine the case in terms of core social values that will resonate with the court and the general public. ¹⁴⁷ Similarly, litigators in momentous corporate cases are likely to speak about economic principles and impact beyond the specific decision. ¹⁴⁸ Here again we see innovative lawyers ascribing primacy to principles over principals, and judges are often willing to play along with the kabuki theater of an individual case when all parties are aware that broader social reform is at stake. ¹⁴⁹

^{141. 539} U.S. 558 (2003).

^{142.} Carpenter, *supra* note 96, at 193 (explaining how "the advocates distanced themselves from the actual circumstances" of the arrest and focused on the concepts of intimacy, relationships, privacy, and family).

^{143.} *Id.* at 259–60; *see also Lawrence*, 539 U.S. at 567 ("When sexuality finds overt expression in intimate conduct with another person, the conduct can be but one element in a personal bond that is more enduring.").

^{144.} See CARPENTER, supra note 96, at 104 (summarizing the many reasons supporting the author's contention that "there is no reason... to believe that there was any actual sex in the U.S. Supreme Court's heralded sexual freedom decision"). The two men arrested for homosexual conduct later denied it, and there were stark inconsistencies in the reports of the two sheriff's deputies who claimed to have observed the act. See id. at 61–74.

^{145.} See id. at 131 (describing the no contest plea as a "clean option").

^{146.} *Id.* at 247. During the hour of oral arguments at the Supreme Court, no one mentioned the words "anal sex" or "oral sex," nor did anyone refer to either of the defendants by name. *Id.* The lawyers opted for a "strategy... to shine a harsh light on the Texas law rather than focus on the defendants." *Id.*

^{147.} See supra note 121.

^{148.} See, e.g., Powell, supra note 51, at 429 (describing the Delaware case that judicially sanctioned the poison pill).

^{149.} See CARPENTER, supra note 96, at 140 (explaining how the defendants in Lawrence persuaded a Texas judge to increase the size of the fine levied against them in order to satisfy the monetary threshold for appeal). But see Johnson, supra note 97, at 47 (noting that some Justices on

B. Outcomes, Implementation, and Adoption

Innovative professionals are motivated at least in part by the hope of an impact beyond the particular patient or client. However, the outcome of an individual instance of innovation or experimentation may not have a direct link with that broader social purpose. Practicing physicians and lawyers are notorious for their resistance to change, ¹⁵⁰ an admirable trait to the extent that adherence to old habits protects principals from risk and uncertainty, but one that may also delay the adoption of potentially beneficial new technologies and techniques. This section examines various mechanisms by which novel developments expand outward from the small communities of innovation outlined in Part II to become part of professional practice more generally. The previous section explained that the fields of medicine and law engender different approaches to factual accuracy in experimentation. These divergent notions of veracity continue to play a role in explaining how novel ideas and techniques are disseminated through each profession.

1. Medicine: Evidence and Guidelines

New ideas and implements developed in medical practice are often adopted and adapted early on by other innovators. ¹⁵¹ Innovations that survive this stage generally follow one of two paths toward broader use. Some new developments are "perceived to have such profound benefits that they [are] introduced and widely disseminated without proper evaluation" in clinical trials. ¹⁵² These innovations may ultimately live up to the high expectations, ¹⁵³ but some later turn out to be "ineffective or even harmful." ¹⁵⁴ Meanwhile, novel techniques and tools that do not enjoy widespread adoption early on may undergo formal clinical trials, but even highly favorable results at this stage may fail to overcome the

the Supreme Court found offensive the idea of "contrived litigation" dedicated to vindicating abstract principles).

^{150.} See Riskin et al., supra note 15, at 691 ("Health care has been described as the most entrenched, change-averse industry in the United States."); Rosenberry, supra note 33, at 456 (discussing "organizational barriers to creativity in law schools and the legal profession").

^{151.} See, e.g., Riskin et al., supra note 15, at 689 ("Since some surgeons are technologically savvy and relish new technology, they are often early adopters.").

^{152.} Saha, *supra* note 67, at 7.

^{153.} *Id.* (citing the examples of laparoscopic cholecystectomy, organ transplantation and joint replacements).

^{154.} *Id.* (citing prefrontal lobotomy for schizophrenia and radical mastectomy for breast cancer); *accord* McKneally & Daar, *supra* note 68, at 930 (citing radical mastectomy and routine tonsillectomy); Christina Reith et al., *Randomized Clinical Trials—Removing Unnecessary Obstacles*, 369 NEJM 1061, 1061 (2013) (citing "treatment with anti-arrhythmic drugs after heart attacks" and "routine glucocorticoid use for head injury").

inertia of traditional practice¹⁵⁵ or the fear of malpractice liability. ¹⁵⁶

It seems that both paths toward acceptance proceed apace irrespective of the formal evidence base, with the existence or non-existence of new clinical trials having little immediate impact. Leaders in medicine and public health have become increasingly vocal in their support for evidence-based medicine, imploring physicians to adhere to best practices and restructuring processes of care to establish evidence-based default clinical pathways. Despite these exhortations, the data continue to show wide variation in utilization rates for various procedures and frequent disregard for evidence-based best practices. Blue ribbon panels may articulate clinical guidelines based on hard data from

^{155.} See Chris Degeling, Fractured Hips: Surgical Authority, Futility, and Innovation in Nineteenth Century Medicine, 33 ENDEAVOUR 128, 132 (2009) ("[S]ometimes the introduction and validation of new forms of evidence is not sufficient to alter the inertia of long-accepted surgical practices."); Jacky Swan et al., The Object of Knowledge: The Role of Objects in Biomedical Innovation, 60 Hum. Rel. 1809, 1810 (2007) ("[E]ven where the application of scientific knowledge to new treatments has been 'proven' through clinical trials, uptake rates are sometimes poor, as it can be difficult to convince medical and health practitioners to change their existing practices.").

^{156.} See Michael D. Greenberg, Medical Malpractice and New Devices: Defining an Elusive Standard of Care, 19 HEALTH MATRIX 423, 426 (2009) ("American case law does not appear directly to have addressed the problem of malpractice risk associated with innovative new technology use."). States vary in their methods for defining the standard of care, but "all versions of the malpractice standard are ultimately based on an evaluation of the appropriateness of a physician's conduct, by comparison to what reasonable physicians either do, or should do, in similar circumstances." Id. at 430. Innovation is, by definition, a deviation from the standard of care. A successful innovation is cause for celebration, but a deviation that harms a patient is a potential cause of action. In that sense, clinical research regulations serve a protective function: IRB review and informed consent can shield physician-researchers from liability when they test out carefully planned deviations from the standard of care. See infra notes 186–190 and accompanying text.

^{157.} See Jerry Avorn, Healing the Overwhelmed Physician, N.Y. TIMES, June 11, 2013, http://www.nytimes.com/2013/06/12/opinion/healing-the-overwhelmed-physician.html (explaining how medical organizations can play a "curation' role" by distilling clinical evidence into practice guidelines); see also Martin Roland, Linking Physicians' Pay to the Quality of Care—A Major Experiment in the United Kingdom, 351 NEJM 1448, 1449 (2004) ("The 1990s were the years of evidence-based medicine, when health professionals gradually came to accept that there were better and worse ways of doing things.").

^{158.} See Joseph P. Newhouse & Alan M. Garber, Geographic Variation in Medicare Services, 368 NEJM 1465, 1468 (2013).

^{159.} See J.B. McKinlay et al., Sources of Variation in Physician Adherence with Clinical Guidelines: Results from a Factorial Experiment, 22 J. GEN. INTERNAL MED. 289, 292 (2007) (noting that compliance with various evidence-based guidelines among primary care physicians varied from 6% to 88%); Justin Kung et al., Failure of Clinical Practice Guidelines to Meet Institute of Medicine Standards: Two More Decades of Little, If Any, Progress, 26 ARCHIVES INTERNAL MED. 1628, 1628 (2012) (noting that in general, "clinical practice guidelines have played an increasingly prominent role in dictating the practice of medicine," but that these guidelines "demonstrate[] poor compliance with [Institute of Medicine] standards, with little if any improvement over the past two decades").

clinical trials, but it seems that practitioners are nonetheless willing to adopt untested innovations and ignore rigorously proven improvements. This may be due to ignorance of the most recent data¹⁶⁰ or simply the belief that they know what's best for their own patients.¹⁶¹

Whatever happens in practice, though, the research community takes note of new updates in the field, and the results from one clinical study often serve as the jumping-off point for another. Research is an inherently iterative process, with each experiment building on and refining the results of those that came before. ¹⁶²

2. Law: Subjective Legal "Truths"

The process of implementation plays out differently in law, in part because of the nature of legal "truths." Medical research purports to describe immutable biological facts, and practicing physicians may choose to disagree with the reported results based on other public studies or their own personal experience. Legal truths, however, are ultimately determined and articulated by judges. ¹⁶³ Practicing attorneys are not free to disregard judicial precedent the way doctors can shrug off non-binding clinical guidelines. ¹⁶⁴

For this reason, lawyers are typically cautious about adopting novel products that were developed in innovative practice. They may be reluctant to pursue legal strategies that have yet to receive official sanction in the legislature or the courts, since their clients would face the risk of an unfavorable judicial decision that could expose them to liability. Even if a novel legal product or theory is approved in one state or circuit, it may not receive similarly favorable treatment in other jurisdictions, and thus lawyers may choose to proceed with caution.

A curious caveat to this argument rests on the principle of strength in numbers: the very fact of widespread adoption could have an effect on a judge's ruling, since the overall consequences of rejecting a particular practice depend in

^{160.} Avorn, *supra* note 157 (describing the constant influx of new information and wryly commenting that "even the most superbly assembled evidence doesn't disseminate itself").

^{161.} See Christel Mottur-Pilson, *Physician Explanations for Failing to Comply with "Best Practices"*, 4 EFFECTIVE CLINICAL PRAC. 207, 207 (2001) (noting that "physicians may disagree about what constitutes 'best practices'").

^{162.} The first step in this iterative process is simply to confirm the results. See Joffe & Miller, supra note 4, at 34 (noting that reproducibility of results is an essential component of creating truly generalizable knowledge).

^{163.} Every law student is familiar with Justice Marshall's famous maxim that judges have the duty to "say what the law is." Marbury v. Madison, 5 U.S. 137, 177 (1803). See also Ackerman, supra note 6, at 18 (explaining the Burkean view that the common law consists of the "gradual accretion of concrete decisions" by judges over time).

^{164.} Cf. Sage, supra note 67, at 59 ("[L]awyers perceive authority as derived from man-made law..., while doctors regard authority as based on science and therefore subject to individual control.").

large part on how prevalent the practice already is. 165 In general, however, it seems the burden of testing novel legal products in court falls on the innovators themselves, with a favorable decision paving the way for broader implementation and use. 166

The type of experimentation most commonly associated with cause lawyers is less tightly linked to the everyday practice of law, and may not involve so straightforward a question as the validity of a particular corporate structure or contractual feature. Some cases really do produce an immediate and obvious effect, particularly when a pervasive law is declared unconstitutional and can no longer be legally enforced. If In some instances, though, society can be as unresponsive to a purported change in the law as free-spirited physicians often are to the latest set of clinical guidelines from an expert panel in faraway Washington, D.C. This raises interesting questions about the difference between "the law as it is written [and] as it is applied."

In some cases, a statute alleged to be unconstitutional may not even be routinely enforced, but activist groups seek to have it declared unconstitutional on principle as a statement about justice, or because its very existence has insidious side effects. ¹⁶⁹ In other cases, a decision may seem like a decisive legal victory, but then falls short on actually producing the change articulated in its aspirational vision. *Brown v. Board of Education* is one of the most well-known and publicly praised decisions in recent Supreme Court history, but it is also often cited as a prime example of an ostensibly forceful judicial decree whose implementation depended on intense and chaotic action in legislatures, government offices, and courts across the country. ¹⁷⁰ Cases like *Brown* have led

^{165.} See Kettering, supra note 15, at 1562. Kettering describes the weak doctrinal underpinnings for the now-common financial practice of securitization, but opines that courts are unlikely to declare it unlawful because of the "drastic adverse consequences for holders of the vast quantity of outstanding securitized debt." *Id.* Thus, he concludes that "the doctrinal shakiness of securitization is now irrelevant, because the product has grown too big to fail." *Id.*

^{166.} See, e.g., Powell, supra note 51, at 440. Wachtell Lipton invented the "poison pill" antitakeover device, and was the only firm to use it until it was upheld by the Delaware Supreme Court in a 1985 decision. Id. at 439. "Once the Delaware Supreme Court had put its seal of approval on the poison pill, however, its diffusion occurred very rapidly," and "within nine months of the court's decision 263 companies had poison pills in place." Id. The history of the poison pill is discussed at greater length in Subsection II.C.1, supra.

^{167.} See Hunter, supra note 57, at 1013 (noting that after Roe v. Wade, "not a single state abortion statute remained constitutional").

^{168.} Etienne, supra note 41, at 1212.

^{169.} See Carpenter, supra note 96, at 107–08 (discussing the pernicious effects of a law that "packs a strong cultural message about the group it affects," even when enforcement is rare); Johnson, supra note 97, at 15 (noting that the Connecticut anti-contraception law had "never been enforced," but "likely had a chilling effect on the provision of birth control information," particularly to low-income women).

^{170.} See MELTSNER & SCHRAG, supra note 59, at 77 (noting that "hundreds of lawyers have

some commentators to claim that litigation is an imperfect tool for social change, or even that litigation alone can never succeed if it's not part of a broader movement of political mobilization.¹⁷¹

Of course, the Supreme Court rulings discussed in this Note are notorious for reasons far beyond their impact on the particular legal question at issue in the case. The *Griswold* decision, for instance, achieved a victory by allowing clinicians to provide contraception to married couples without fear of legal sanction, but the case has deeper import in the history of American jurisprudence as the genesis of the modern doctrine of privacy. The law is an ever-flowing river that may change course at any moment. *Griswold*'s privacy rights and *Brown*'s equal protection rights have been subject to constant and often inconsistent reinterpretation. Just as each new clinical study furthers the quest to refine our understanding of disease and wellbeing, experimentation in the law feeds an ongoing process of iterative jurisprudential exploration quite apart from considerations about the concrete day-to-day impacts of each decision.

IV. REGULATING THE PROFESSIONS: EXPERIMENTATION ACKNOWLEDGED AND IGNORED

Thus far, this Note has largely focused on outlining broad similarities—qualified by a few distinctions—in the way the medical and legal professions approach practice, innovation, and experimentation. Enormous differences exist, however, when it comes to the way these distinctions are treated under the law. In Part IV, I briefly trace each profession's history through the twentieth century to better understand how key events and public pressures produced a formal split

spent twenty years in school desegregation litigation—some of the suits new test cases to interpret [Brown v. Board of Education] ..., some of them mere enforcement actions" against "recalcitrant school boards" or "unreconstructed federal district judges"); Hunter, supra note 57, at 1013 (noting the importance of "legislative enactment and litigation enforcement" in Brown's wake).

171. See ROSENBERG, supra note 58, at 421 ("[T]here is no substitute for political action [N]ot as a fallback position, not as a complement to a legal strategy, but as the strategy itself."); Kevin R. Johnson, Lawyering for Social Change: What's a Lawyer to Do?, 5 MICH. J. RACE & L. 201, 215 (1999) (arguing that "[o]f all the tools for change, political action holds the most transformative potential," while litigation has only "a marginal impact"). But see Hunter, supra note 57 (arguing that litigation complements political mobilization by providing a vocabulary of rights, a motivational focal point, and salience in the media).

172. JOHNSON, *supra* note 97, at 223 ("The constitutional right of privacy established in *Griswold*... was extended... to cover such important dimensions of human existence as marriage, procreation, family relationships, child rearing, and education."); *see*, *e.g.*, *In re* Quinlan, 70 N.J. 10, 40 (1976) (relying on the privacy analysis outlined in *Griswold* to establish the right for patients to refuse life-sustaining treatment).

173. See, e.g., GARY ORFIELD & SUSAN E. EATON, DISMANTLING DESEGREGATION: THE QUIET REVERSAL OF BROWN V. BOARD OF EDUCATION 3–4 (1996) (analyzing the history of school desegregation and affirmative action policies and noting a "profound shift of judicial philosophy" in the Court's interpretation of Brown's fundamental principles).

between medical practice and clinical research, and why no such division exists within the legal profession.

A. History of Professional Regulation

1. Medical Dualism: A Response to Past Abuses

The relationship between science and medicine changed dramatically around the turn of the twentieth century. Rapid advances in the natural sciences prompted increasing scientific rigor in medical training and clinical practice, ¹⁷⁴ which in turn generated the hybrid role of the "clinical scientist, versed in the bedside practice of medicine and capable of applying the knowledge and techniques of the basic sciences to the study of human disease." At this time, it was common for physicians to experiment on their patients, often without their knowledge. ¹⁷⁶

Revelations of the cruel experiments performed on prisoners in the Nazi concentration camps during World War II shocked the global conscience and inspired the Nuremberg Code, the first international agreement on the ethics of research on human subjects. The Code did not have the force of law, but rather urged physicians to adhere to the ethical research principles as a matter of self-enforced professional responsibility. The Code called for informed consent and voluntary participation from subjects, but in the ensuing years, some American researchers quietly resumed the practice of carrying out potentially harmful experiments on their patients without their knowledge.

In 1966, Harvard researcher Henry Beecher published an article in the *New England Journal of Medicine* describing twenty-two recent studies that put

^{174.} See HARVEY, supra note 61, at 404-05.

^{175.} *Id.* at 183. By the end of the nineteenth century, there was a generally recognized distinction between the fields of basic scientific research and medical practice. *Id.* at 128. Clinical researchers existed as a blended role, which "served to bridge the gap" between these professional identities. *Id.* at 183.

^{176.} See generally SUSAN E. LEDERER, SUBJECTED TO SCIENCE: HUMAN EXPERIMENTATION IN AMERICA BEFORE THE SECOND WORLD WAR (1997) (describing several experiments conducted clandestinely by medical professionals and by the government in the years 1890 to 1940); see also Krupat et al., supra note 35, at 50 (describing medical paternalism more generally).

^{177.} See Jonathan R. Markman & Maurie Markman, Running an Ethical Trial 60 Years After the Nuremberg Code, 8 LANCET ONCOLOGY 1139–40; see generally Office Human Research Prots. The Nuremberg Code, HHS, http://www.hhs.gov/ohrp/archive/nurcode.html (last updated Nov. 7, 2005).

^{178.} Markman & Markman, supra note 177, at 1140.

^{179.} See Office Human Research Prots., supra note 177 (phrasing the ethical rules as normative professional guidelines rather than hard rules).

^{180.} Id. ("The voluntary consent of the human subject is absolutely essential.").

^{181.} See Henry K. Beecher, Ethics and Clinical Research, 274 NEJM 1354, 1354 (1966); Markman & Markman, supra note 177, at 1141–43.

human lives at risk.¹⁸² These studies were carried out at prestigious institutions and were well known in the medical community, but the patients involved were often not aware that they had been subjects in a medical experiment.¹⁸³ A few years later, news broke of the Tuskegee syphilis study, a thirty-year, government-funded initiative in which clinicians falsely promised treatment to African American men suffering from venereal disease and instead simply recorded the progression of their illness.¹⁸⁴

In response to these well-publicized abuses, the federal government conducted hearings, passed legislation, and ultimately established firm ethical and legal requirements for research on human subjects. The ethical underpinnings of this regulatory framework were laid out in the Belmont Report, which explained the imperative to seek voluntary informed consent from research subjects, to refrain from studies in which the risk to human subjects outweighs the potential benefits of the research, and to avoid recruiting subjects from populations that are vulnerable to coercion or abuse. These requirements are codified in the Department of Health and Human Services' "Common Rule," along with a requirement that all proposed research on human subjects be reviewed by an Internal Review Board (IRB) to ensure adequate protections. Regular medical practice is not affected by these regulations; they only apply to clinical research, defined as any "systematic investigation" designed to "contribute to generalizable knowledge." Whereas the Nuremberg Code

^{182.} Beecher, *supra* note 181. For example, Beecher describes two studies where patients were injected with live cancer cells to test the human immune response. *Id.* at 1358–59.

^{183.} Id. at 1354.

^{184.} See About the USPHS Syphilis Study, TUSKEGEE UNIV., http://www.tuskegee.edu/about _us/centers_of_excellence/bioethics_center/about_the_usphs_syphilis_study.aspx (last visited June 16, 2013); see also Robert M. White, Unraveling the Tuskegee Study of Untreated Syphilis, 160 ARCHIVES INTERNAL MED. 585, 595 (2000) (noting that scientific publications describing the Tuskegee study "did not disturb the editors, peer reviewers, and readership," but that the study generated national controversy after "a newspaper article exposed it").

^{185.} See Tom L. Beauchamp & Yashar Sangai, The Historical Foundations of the Research-Practice Distinction in Bioethics, 33 THEORETICAL MED. & BIOETHICS 45, 47–48 (2012).

^{186.} Belmont Report, supra note 8. These ethical "applications" are derived from the three fundamental principles of respect for persons, beneficence, and justice.

^{187. 45} C.F.R. § 46 (2014). See generally Federal Policy for the Protection of Human Subjects ("Common Rule"), supra note 10.

^{188. 45} C.F.R. § 46.109. The Common Rule only applies to federally funded research, but the FDA has imposed largely identical requirements on research submitted as part of applications for approval of FDA-regulated products. See 21 C.F.R. § 50 (2014). Large academic medical institutions typically require IRB approval for all studies involving human subjects. See, e.g., Office of the Vice President for Research, Institutional Review Board: Does My Research Need IRB Review?, U. MINN. (last updated Jan. 6, 2014), http://www.research.umn.edu/irb/research.html ("The university's IRB has assured federal regulatory agencies that the institution will review and approve all research that meet the federal definition of human subjects research.").

^{189. 45} C.F.R. § 46.102. "Activities which meet this definition constitute research for

envisioned research ethics as a component of individual professional responsibility, the Common Rule represents an external intrusion into the prevailing model of self-regulation. 190

2. Legal Monism: One Code of Ethics for Many Categories of Conduct

Lawyers have been fiercely committed to the idea of self-regulation since state bar associations were first formed around the turn of the twentieth century. The profession's self-defined role has been the pursuit of justice through adversarial client-centered advocacy. The main professional codes of conduct underwent significant changes in 1969 and 1983, transitioning from a set of aspirational guidelines for ethical behavior and civic virtue to a set of baseline requirements for minimally acceptable conduct. Despite the increased specificity of the modern rules, however, they failed to acknowledge the innovation and experimentation that were already occurring among certain established branches of the profession.

The "corporate revolution" that followed World War I institutionalized the primacy of the publicly traded corporation, prompting increased regulation from

purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes." *Id.* The definition of "generalizable knowledge" is largely stated in terms of the intentions of the researchers, *see supra* notes 11–14 and accompanying text, which can create uncertainty where an activity designed for quality improvement is construed by HHS enforcers as research, *see infra* notes 236–237 and accompanying text.

^{190.} Self-regulated professions generally seek to preserve their autonomy, but "self-governance is understood to be rooted in a delegation of the legislature's power to regulate.... The state grants the authority to self-regulate—and can take it away." Gillian K. Hadfield, Legal Barriers to Innovation: The Growing Economic Cost of Professional Control over Corporate Legal Markets, 60 STAN. L. REV. 1689, 1696 (2008).

^{191.} Marvelle C. Webber, *Origin and Uses of Bar Associations*, 7 A.B.A. J. 297, 300 (1921) (arguing that state bar associations should be created because "the bar itself should have broad powers of discipline and control over [admissions]"); *see also* Robert J. Kutak, *Model Rules of Professional Conduct: Why Do We Need Them?*, 36 OKLA. L. REV. 311, 315 (1983) ("There can be no question but that our profession—perhaps more so than any other—is seriously committed to self-regulation."). "Congress has largely remained out of the field of lawyer regulation," Hadfield, *supra* note 190, at 1699, with state courts and bar associations playing a critical role in devising and enforcing the rules, *see id.* at 1698.

^{192.} See Johnston & Lufrano, supra note 2, at 147.

^{193.} See generally Carl Horn, III, Evolution of Lawyer Self-Regulation: 1908 to 2008 in a Nutshell, 1 Charlotte L. Rev. 3 (2008); John M. Tyson, Short History of the American Bar Association's Canons of Professional Ethics, Code of Professional Responsibility, and Model Rules of Professional Responsibility: 1908–2008, 1 Charlotte L. Rev. 9 (2008).

^{194.} See Tyson, supra note 193, at 10.

^{195.} However, the profession's sense of civic duty arguably does encompass serving the public interest as lawyer-statesmen. *See* Something to Believe In, *supra* note 20, at 49; Karen L. Loewy, *Lawyering for Social Change*, 27 FORDHAM URB. L.J. 1896, 1872–74 (2000).

the government. ¹⁹⁶ The ensuing specialization among practicing attorneys produced the modern stratified model in which large, elite firms cater to large, corporate clients. ¹⁹⁷ Cause lawyering, meanwhile, is commonly thought to have originated with the civil rights movement in the 1960s. ¹⁹⁸ There was a backlash against this new form of advocacy from within the legal profession and the public at large, ¹⁹⁹ but the organized profession eventually made a kind of uneasy peace with cause lawyering. ²⁰⁰ Indeed, the same politicized identity and strategic litigation tactics have been taken up by liberal and conservative attorneys on a variety of issues, meaning that cause lawyering is now firmly entrenched within the profession and widely represented across the political spectrum. ²⁰¹

B. Public Perception and Public Regulation

1. Public Trust

A comparison with the physician-researcher split in bioethics suggests some possibilities that may underlie the legal profession's continued failure to acknowledge its own experimental arm in the codes of professional conduct. Doctors have long been highly trusted as a profession. Trust in medical researchers has not been as carefully studied, but it seems that researchers today benefit from general public trust in universities and health care institutions. Goodwill toward medical researchers is distinct from the public's positive feelings about doctors, however, and is more easily lost in the event of suspicious conduct.

^{196.} See Hadfield, supra note 190, at 1703-04.

^{197.} See supra text accompanying notes 104–108.

^{198.} See SOMETHING TO BELIEVE IN, supra note 20, at 4.

^{199.} See Thomas M. Hilbink, "The Kids Are Alright:" Cause Lawyering on Television in 1960s America, in The Cultural Lives of Cause Lawyers 203, 204 (Austin Sarat & Stuart Scheingold eds., 2008) ("Many Americans were deeply anxious about this emerging subculture within the generally tradition-bound and well-established legal profession.").

^{200.} See SOMETHING TO BELIEVE IN, supra note 20, at 40.

^{201.} See id. at 3.

^{202.} See Mark A. Hall et al., Trust in Physicians and Medical Institutions: What Is It, Can It Be Measured, and Does It Matter?, 79 MILBANK Q. 613, 624 (2001); Leo J. Shapiro & Assocs., Public Perceptions of Lawyers: Consumer Research Findings, ABA 6 (Apr. 2002) [hereinafter Public Perceptions of Lawyers], http://www.cliffordlaw.com/abaillinoisstatedelegate/publicperceptions1.pdf (noting that doctors ranked highest out of ten professions on measures of public confidence).

^{203.} See Michael McDonald et al., Trust in Health Research Relationships: Accounts of Human Subjects, 3 J. Empirical Res. Hum. Res. Ethics 35, 40 (2008); Sugarman et al., supra note 21, at 5.

^{204.} See Mark A. Hall et al., Measuring Trust in Medical Researchers, 44 Med. Care 1048, 1048 (2006).

^{205.} See McDonald et al., supra note 203, at 39 ("[T]rust in research relationships . . . could

Even today, the specter of past abuses hangs over experimentation on human subjects. Any article on research ethics typically makes at least a passing reference to this tragic history, and any publicized incident of research subjects coming to harm generates renewed calls for stricter regulations. ²⁰⁶ The memory of past transgressions on the part of clinical researchers also lingers in the public consciousness. For example, individuals who know about the Tuskegee study tend to have less trust in clinical researchers overall and are less likely to consent to participation in research studies. ²⁰⁷

The history of experimentation in law²⁰⁸ is, in some ways, the inverse of this cautionary tale. Unlike doctors, lawyers have traditionally been viewed with suspicion and distrust, tolerated as a necessary evil rather than admired as a noble calling.²⁰⁹ Indeed, the three main seismic shifts in professional self-regulation were motivated in part by a desire among lawyers to improve the public perception of their profession.²¹⁰ Cause lawyers, on the other hand, are often held in higher regard than the general profession for the very reason that makes them an anomaly under the Model Rules: rather than acting as a "hired gun" and selling their skills to the highest bidder, they dedicate themselves to serving their conception of the public interest.²¹¹

be easily broken.").

206. See, e.g., Rebecca Dresser, First-in-Human Trial Participants: Not a Vulnerable Population, but Vulnerable Nonetheless, 37 J.L. MED. & ETHICS 38, 41 (2009) (noting that after a trial in which several subjects experienced severe adverse drug reactions, "some experts called for systemic changes to increase . . . trial safety").

207. Vickie L. Shavers et al., Knowledge of the Tuskegee Study and Its Impact on the Willingness to Participate in Medical Research Studies, 92 J. NAT'L MED. ASS'N 563 (2000). It has also been consistently documented that African Americans are more likely than other groups to view medical research as risky and to decline participation. See, e.g., Sugarman et al., supra note 21, at 5 (finding this distrust "not surprising[]," given that the African American community "was the subject of perhaps the most egregious episode of abuse of human subjects in American history").

208. This section focuses on cause lawyers, since they represent the most radical departure from traditional legal ethics by shifting the focus from the individual client to the broader social mission.

209. See Public Perceptions of Lawyers, supra note 202, at 6 ("[T]he legal profession is among the least reputed institutions in American society.").

210. See Tyson, supra note 193, at 18 ("[A]mendments to the Canons, Model Code, and Model Rules have addressed the changes in the practice of law and expectations of society."); Lewis F. Powell, The President's Annual Address: The State of the Legal Profession, 51 A.B.A. J. 821, 822 (1965) (explaining the motivations for updating the professional rules of conduct, including poor public opinion of the profession); see also Webber, supra note 191, at 300 (noting that state bar associations were created because the legal profession did not hold the "confidence and esteem of the public" and "no greater improvement in this situation can be had without bringing the entire bar into an organization" that "shall be responsible for their professional conduct").

211. See Austin Sarat & Stewart Scheingold, Bringing Cultural Analysis to the Study of Cause Lawyers: An Introduction, in THE CULTURAL LIVES OF CAUSE LAWYERS, supra note 199, at 1, 2;

As it turns out, some members of the public reject the traditional premise of lawyers as neutral advocates who preserve the innate justice of the adversarial system. According to a study commissioned by the ABA, the legal profession has "a reputation for winning at all costs, and for being driven by profit and self-interest, rather than client interest." It seems that the public suspects all lawyers of harboring motivations extraneous to their clients' needs, and many would prefer that those motivations stem from a desire to serve the public interest rather than from self-interest.

2. Public Awareness

Often, however, the media and the public simply fail to distinguish between traditional and cause lawyers. Major test cases on important issues typically receive prospective media attention leading up to the oral arguments or the decision, but the coverage tends to focus on the clients rather than the attorneys. The lawyers are often referenced only as "a form of citation to the law"; they are portrayed as legal experts helping a brave client seek justice rather than as movers and shakers in a coordinated ideological movement that may well have planned the case from the ground up. 215

The fact that there are media representations of these cases at all raises another salient point of difference with the medical context, since clinical research is typically conducted out of the public eye in hospitals and laboratories. The public may learn of major discoveries in news coverage of recent findings, but the focus only shifts to the individual researchers when the media profiles a star of the field, 216 or when something goes wrong and a research subject is

Public Perceptions of Lawyers, supra note 202, at 11 (noting that civil rights lawyers enjoy a more positive public perception than the profession at large because they are "said to be working in the public interest").

^{212.} Public Perceptions of Lawyers, supra note 202, at 7. This attitude likely applies to the corporate lawyers we have been discussing, whose work on behalf of large corporations fails to generate the feel-good response of civil rights attorneys.

^{213.} See Sarat & Scheingold, supra note 211, at 7 (noting that "representations of cause lawyers in popular culture are often hard to distinguish from representations of mainstream lawyers").

^{214.} Laura J. Hatcher, Of Windmills and Wetlands: The Press and the Romance of Property Rights, in THE CULTURAL LIVES OF CAUSE LAWYERS, supra note 199, at 188, 188.

^{215.} For discussions of how this plays out in a variety of films and news media reports, see id. (discussing media coverage of conservative property rights lawyers); Michael McCann & William Haltom, Nothing to Believe In: Contemporary Films About Public Interest Litigation, in The CULTURAL LIVES OF CAUSE LAWYERS, supra note 199, at 230 (discussing the films Erin Brokovich and North Country); Stuart A. Scheingold, Now You See It, Now You Don't: Cause Lawyering, Popular Culture, and A Civil Action, in The CULTURAL LIVES OF CAUSE LAWYERS, supra note 199, at 331 (discussing the book and film versions of A Civil Action).

^{216.} See, e.g., Profiles in Science, N.Y. TIMES, http://www.nytimes.com/interactive/science

harmed.²¹⁷ These latter instances of opprobrious retroactive awareness may feed public feelings of blame or betrayal for studies that are perceived as unethical by design.²¹⁸

Most clinical research and most litigation proceed without major mishap or public awareness. When harm does occur, however, the public perceives the injury differently in the medical and legal contexts. Everyone can agree that a healthy research subject who suffered severe consequences during an experiment suffered a direct harm. The stakes may be just as high for clients in appellate cases, since criminal defendants may be appealing sentences of life imprisonment or execution. Even in civil cases, clients with strong beliefs about racial equality or religious liberty may accord these values equal weight with physical health. Nonetheless, any ruling on equal protection or abortion inevitably leaves some members of the public feeling validated and others feeling oppressed. Moreover, the public may blame the "activist judges" who made the decision rather than the cause lawyers who argued in favor of it. 221

The emerging picture of cause lawyers is that of a generally favored subset within a generally disfavored profession. In this light, it seems hardly surprising that they have not been the target of regulatory constraints. The legal profession may tacitly avoid drawing distinctions because practitioners benefit from being associated with a publicly admired form of lawyering. ²²² The potential harms to clients or society are on par with those of abusive clinical research, but the government has had no need to step in because there has been no public outcry for tighter restrictions on a class of lawyers that generally receives praise, when

[/]profiles-in-science-series.html (last updated Apr. 8, 2013) ("A series of articles and videos about leaders in science.").

^{217.} See, e.g., Sabrina Tavernise, Study of Babies Did Not Disclose Risks, U.S. Finds, N.Y. TIMES, Apr. 10, 2013 (listing the individual researchers associated with a study under review by the federal Office of Human Research Protections).

^{218.} See, e.g., Dresser, supra note 206, at 42 (discussing such a response following the death of Jesse Gelsinger in a gene transfer study).

^{219.} However, confusion over research methods can even produce public opprobrium for studies that likely didn't increase the risk of harm at all. See, e.g., Jeffrey M. Drazen et al., Informed Consent and SUPPORT, 368 NEJM 1929 (2013) (arguing that a recent study in which several preterm infants suffered death or blindness was consistent with known research at the time it was initiated, and was thus wrongly targeted for enforcement action by the Office for Human Research Protection (OHRP)); see also Tavernise, supra note 217 (describing the OHRP enforcement action in the New York Times).

^{220.} See BARRY FRIEDMAN, THE WILL OF THE PEOPLE: HOW PUBLIC OPINION HAS INFLUENCED THE SUPREME COURT AND SHAPED THE MEANING OF THE CONSTITUTION 9 (2009) (noting that after a controversial Supreme Court decision, "those who disagree with the justices lash out at the Court and the power of judicial review. Those who agree with the justices jump to their defense, waving the Constitution.")

^{221.} See id. at 9 (noting that often in the court of public opinion, "a fight over the Constitution becomes one about the judges").

^{222.} SOMETHING TO BELIEVE IN, supra note 20, at 127.

the public notices it at all. 223

C. Protecting Cause Lawyers from Regulation

An intriguing wrinkle to this story is that the Supreme Court has, in fact, singled out cause lawyers as a distinct group, but only in order to *protect* them from regulation. Most notably, the Court held in 1978 that cause lawyers are exempted from state prohibitions on soliciting clients. Latice Powell's opinion in *In re Primus* sums up the ethos of cause lawyering by explaining that organizations like the ACLU and the NAACP pursue litigation not as "a technique of resolving private differences," but as "a form of political expression and political association." The activities of lawyers like ACLU attorney Edna Primus were thus held to be protected under the First Amendment, including their practice of identifying and contacting potential clients. Way of contrast, Justice Powell referenced another decision handed down the same day affirming each state's right to proscribe "solicitation by lawyers who seek to communicate purely commercial offers of legal assistance to lay persons."

Though Justice Rehnquist dissented in the outcome, nowhere in his opinion does he reject the majority's "tale of two lawyers," which portrayed cause lawyers as distinct from private firms that solicit clients for pecuniary gain. Indeed, no member of the Court disputed the existence of cause lawyers as a subclass of attorneys qualitatively distinct from traditional lawyers; the sole point of disagreement was on the question of whether legislatures and courts can reliably distinguish between the two, or even have the constitutional authority to do so. ²²⁹

In re Primus concerned a private organization, but the courts have also stepped in to prevent the government from unduly interfering in legal programs funded by public dollars. Peter Joy describes a number of statutory restrictions on legal services programs and legal aid clinics at public universities that were struck down under the First Amendment or the Equal Protection Clause.²³⁰ Aside

^{223.} There have been cries for public reform of the bar in general following events like Watergate or the Enron collapse, but "the history of the ABA's professional regulation is to resist these calls for reform... and to maintain the regime of self-regulation." Gerard J. Clark, Monopoly Power in Defense of the Status Quo: A Critique of the ABA's Role in the Regulation of the American Legal Profession, 45 SUFFOLK U. L. REV. 1009, 1027 (2012).

^{224.} In re Primus, 436 U.S. 412 (1978).

^{225.} Id. at 428.

^{226.} This is a critical part of cause lawyers' work, since they often work very hard to find just the right client for each case. *See supra* note 53.

^{227.} Id. at 422 (citing Ohralik v. Ohio State Bar Assn., 436 U.S. 447 (1978)).

^{228.} *Id.* at 440–41 (Rehnquist, J., dissenting).

^{229.} Id.

^{230.} Peter A. Joy, Government Interference with Law School Clinics and Access to Justice:

from certain situations where the courts have found a right to appointed counsel, ²³¹ the government has discretion in choosing whether to fund a legal aid program at all. Once funded, however, the judicial consensus seems to be that the government may not place restrictions on the types of clients those lawyers can represent or the types of arguments they are allowed to make. ²³² The ABA has also come out in support of independence for legal services programs and legal aid clinics in law schools, ²³³ evincing the high-level professional approval of public interest lawyers working to represent the underrepresented with both direct services and broader, cause-based initiatives.

The courts are much better than the general public at recognizing and describing cause lawyers, and seem willing to defend their work against certain kinds of regulatory encroachment. This judicial protection is one facet of the generally favorable attitude toward cause lawyers explored in the foregoing sections, a halo of goodwill that may help to explain why cause lawyers are not subject to the kind of strict legal oversight that governs clinical research. Cause lawyers are not the only ones innovating within the law, as discussed in Part II, but attorneys in white shoe firms who represent corporate clients fit with the public's conception of what lawyering normally looks like. Because their innovation and experimentation is likely to be perceived as general legal practice, corporate lawyers are unlikely to be singled out for specific regulation, even if their experimentation is actually quite different from the work of other lawyers. While the innovative cause lawyers discussed in this section were protected from regulation because they stood out from the profession for their mission-driven work, innovative corporate lawyers may be similarly protected due to their invisibility within the profession.

When Is There a Legal Remedy?, 61 CASE W. RES. L. REV. 1087 (2011). A law prohibiting legal aid lawyers from bringing constitutional challenges on behalf of indigent clients was struck down in Legal Services Corp. v. Velazquez, 31 U.S. 533 (2001). See Joy, supra, at 1098–1100. When the University of Mississippi disciplined clinical professors for helping law students to participate in a desegregation case, the Fifth Circuit found it to be unlawful discrimination under the Equal Protection Clause and a violation of due process. See Trister v. Univ. of Miss., 420 F.2d 499 (5th Cir. 1969); Joy, supra, at 1100–01.

^{231.} See Gideon v. Wainwright, 372 U.S. 335 (1963) (holding that indigent criminal defendants have a right to appointed counsel under the Sixth Amendment); Franco-Gonzalez v. Holder, CV 10-02211 DMG (DTBx), 2013 WL 3674492 (C.D. Cal. Apr. 23, 2013) (holding that individuals in immigration detention who have serious mental disorders "are entitled to the reasonable accommodation of appointment of a Qualified Representative to assist them in their removal and detention proceedings under Section 504 of the Rehabilitation Act").

^{232.} Notably, these decisions only pertain to the faculty, who are licensed practitioners; courts are more permissive with regard to restrictions on the students themselves. *See Joy, supra* note 230, at 1105.

^{233.} See Joy, supra note 230, at 1107 (describing various ABA statements and policies).

V. GRAVITATING TOWARD THE CENTER: IMPLICATIONS FOR REFORM

Though medicine and law now exist under very different regulatory frameworks, both professions show tendencies of gravitating toward the center of the spectrum between practice and experimentation. Practitioners hope to give their patients and clients the benefits of innovation, while professionals engaged in experimentation are often reluctant to relinquish a principal-centered outlook. Part V describes these shared inclinations and explores the implications for each profession's rules of conduct, paying special attention to the specific reforms that are currently being considered in each field.

A. Medicine and Clinical Research

1. A Bright Line with Gray Areas

Because of the stark regulatory bifurcation between medical practice and clinical research, any federally funded activity deemed to "contribute to generalizable knowledge" under the Common Rule triggers a swathe of substantive and procedural requirements.²³⁴ The determination is thus an important one, but is not always easy to make because of the hazy line between research and innovative practice.²³⁵

"Innovative therapies need not be classified as research... so long as they are designed solely to benefit the patient" and are not intended to create generalizable knowledge. This criterion is nominally dispositive, but the distinction is highly subjective, and may change over time as a given treatment is modified and refined. Such delicate parsing can also seem quibbling and misguided in the context of clinical care that generates knowledge without compromising patient interests. A gray area that has attracted attention lately is quality improvement initiatives that involve routine data collection on patient outcomes. These activities may well aim to produce generalizable knowledge useful for improving processes of care, but they have no impact on individual

^{234.} See supra text accompanying notes 187-190.

^{235.} See PLoS Med. Editors, How Can We Draw the Line Between Clinical Care and Medical Research?, 4 PLoS Med. 1707, 1707 (2007).

^{236.} David B. Resnik, *The Clinical Investigator-Subject Relationship: A Contextual Approach*, 4 PHIL. ETHICS & HUMAN. MED. 16 (2009). The AMA's Code of Medical Ethics does not explicitly address innovation, but innovative practice seems consistent with the imperative to "use sound medical judgment, holding the best interests of the patient as paramount." CODE OF MED. ETHICS Op. 10.015 (Am. Med. Ass'n 2001).

^{237.} See Brody & Miller, supra note 54, at 341 (noting that it may be "difficult to distinguish between some of the more innovative forms of quality monitoring and improvement and formal research trials"); Kupersmith, supra note 9 ("[T]he more rigorous the approach to quality assessment (and therefore greater likelihood of data validity), the more burdens that apply, with the result that good research is discouraged.").

patients' care, and would be extremely burdensome if subjected to requirements like informed consent due to the large number of patients involved.²³⁸

Meanwhile, there is an ongoing debate in the research community about whether the ethics of clinical research are meant to replace traditional medical ethics or simply to supplement them. The "difference thesis" holds that medical practice is about treating patients while clinical research is about seeking generalized knowledge, which may involve compromising the care of individual patients to ensure accurate results. 239 As long as the protocol has been reviewed for an appropriate balance of risks and benefits and patients have provided informed consent, such a study would be deemed ethical. Some researchers instead support a "therapeutic orientation" for clinical research. 240 They maintain that each participant in a research study should be seen as both a subject and a patient, and adherence to a study protocol should not take precedence over providing the best treatment for each individual's medical needs.²⁴¹ The main guiding documents in research ethics do not resolve this ambiguity: the text of the Belmont Report suggests that research is distinct from care,242 but the Institute of Medicine identifies both research integrity and patient safety as "primary interests" that should not be compromised, with no indication of what to do if the two conflict.²⁴³

^{238.} For a notorious recent example, see Mary Ann Baily, Quality Improvement Methods in Health Care, in From Birth to Death and Bench to Clinic 147, 148 (Mary Crowley ed., 2008). Researchers at Johns Hopkins University Hospital reduced the incidence of catheter-related bloodstream infections by 66% after analyzing routinely collected patient data following the implementation of a safety checklist. When the researchers published their findings in 2006, however, the federal Office for Human Research Protection (OHRP) determined that the activity constituted research and should have been subjected to the usual Common Rule protections. After an outcry from the medical community, OHRP backed down and allowed the Hopkins project to proceed.

^{239.} See Brody & Miller, supra note 54, at 332; Joffe & Miller, supra note 4, at 39; Rosamond Rhodes, Rethinking Research Ethics, 5 Am. J. BIOETHICS 7, 20 (2005).

^{240.} See James A. Anderson, Contextualizing Clinical Research: The Epistemological Role of Clinical Equipoise, 30 Theoretical Med. & Bioethics 269, 284 (2009); Robert J. Wells, Letter to the Editor, 38 Hastings Ctr. Rep. 6, 7 (2008).

^{241.} This view relies in part on the critique that the difference thesis does a poor job of explaining where ethical research ends and exploitation begins. Given the history of the field, some argue that it is better to risk undermining the research protocol than to risk harming human lives. See Resnik, supra note 236 (critiquing the view that the difference thesis is permissible so long as researchers do not exploit their subjects); Wells, supra note 240, at 6.

^{242.} See supra text accompanying notes 11–14. See generally Beauchamp & Sangai, supra note 185 (explaining the history of the Belmont Report's ethical differentiation of research and practice).

^{243.} See COMM. ON CONFLICT OF INTEREST IN MED. RESEARCH, EDUC. & PRACTICE, CONFLICT OF INTEREST IN MEDICAL RESEARCH, EDUCATION, AND PRACTICE 6 (Bernard Lo & Marilyn J. Field eds., 2009). For an overview of this report, see Robert Steinbrook, Controlling Conflict of Interest—Proposals from the Institute of Medicine, 360 NEJM 2160 (2009).

This debate bleeds over into other areas of research ethics, including discussions about the therapeutic misconception²⁴⁴ and the value of clinical equipoise.²⁴⁵ The continuing dialogue on these and other issues demonstrates that ambiguity exists both in differentiating practice from experimentation and also in defining the precise ethical requirements on the latter side. Many clinical researchers are loath to abjure the clinician's mantra to look out for the needs of patients, which keeps the ethics of research tethered to the ethics of practice, despite the existence of an alternate ethical and regulatory framework.

2. Implications for Reform: Amending the Common Rule

In 2011, the U.S. Department of Health and Human Services (HHS) issued an Advanced Notice of Proposed Rulemaking (ANPRM) with several proposed modifications to the Common Rule. Among other changes, the ANPRM aims to replace the all-or-nothing model of human subjects protection with a system in which the level of protection is scaled to match the level of risk. For example, certain types of low-risk studies would be eligible for an "expedited review" process with no annual follow-ups, and others would be exempt from many regulations entirely. As of the time of writing, the public comment period has closed and HHS has yet to announce further action.

Clinical research commentators have proposed or endorsed similar changes over the years, ²⁴⁷ and the foregoing discussion of physician and researcher attitudes lends further support to this proposal. In a way, the ANPRM shifts the regulatory model to approximate what many physicians were already doing. On one hand, any deviation from standard clinical practice could theoretically be considered "experimentation" in that the physician is testing a hypothesis about an uncertain outcome, thereby exposing the patient to risk in the pursuit of

^{244.} Some research subjects fail to understand that a study's primary purpose is to produce knowledge, not to provide personal benefit to them. See Gail E. Henderson et al., Clinical Trials and Medical Care: Defining the Therapeutic Misconception, 4 PLoS Med. 1735 (2007). Academics concerned about valid informed consent worry that the therapeutic orientation contributes to the therapeutic misconception. See Brody & Miller, supra note 54, at 330; Henderson et al., supra, at 1736.

^{245. &}quot;According to clinical equipoise, it would be wrong to randomize subjects to two arms of a clinical trial, unless the medical community genuinely was uncertain as to which of the two treatments was superior." Brody & Miller, *supra* note 54, at 330 (noting that equipoise is one corollary of the therapeutic orientation); *see also* Joffe & Miller, *supra* note 4, at 39–40 (arguing that "[t]he therapeutic orientation in the guise of the principle of clinical equipoise categorically rules out the use of placebo controls when proven effective treatments exist," which "promotes use of methodologically inferior study designs") (internal footnote omitted).

^{246.} See ANPRM for Revision to Common Rule, HHS, http://www.hhs.gov/ohrp/humansubjects/anprm2011page.html (last visited Mar. 10, 2014).

^{247.} See, e.g., Kupersmith, supra note 9; McKneally & Daar, supra note 68; Reith et al., supra note 154.

generalizable knowledge about whether the care deviation will work.²⁴⁸ Physicians do not design and register a formal clinical trial for each instance of such behavior, however, since this clinical variation is essential for tailoring interventions to each patient's needs and developing novel techniques through innovative practice.²⁴⁹ Conversely, the debate over the difference thesis illustrates that clinical researchers are wary of research that poses a high risk to patients, even when such risk would likely be permissible under the risk-benefit balance of the Common Rule. A sliding scale of risk-adjusted protections attempts to capture and address the tension between the innovative and therapeutic goals of medicine and research.

B. Innovation and Experimentation in Law

1. Defining the Client's Goals

Unlike medicine, the law affords a single set of professional ethics for activity all along the practice-experimentation spectrum. The ABA Model Rules direct attorneys to "take whatever lawful and ethical measures are required to vindicate a client's cause or endeavor," which roots any creative developments within a client-centric practice orientation.

The word "lawful" raises interesting questions for innovation, since novel developments introduced in practice may not definitively be seen as legal by the profession at large until they are sanctioned by a judge or codified in a statute. ²⁵¹ It may well be sufficient for the innovating lawyer to *believe* that the new development is lawful based on a competent legal assessment, ²⁵² similar to the Code of Medical Ethics' insistence on a good-faith effort at "sound medical judgment." Creativity and innovation can help advance the needs of individual clients, but the Model Rules' focus on "vindicat[ing] a client's cause or

^{248.} See Brody & Miller, supra note 54, at 342–43.

^{249.} See supra note 67.

^{250.} MODEL RULES, supra note 1, R. 1.3 cmt. para. 1.

^{251.} See Subsection III.B.2, supra (discussing the processes by which novel legal products and theories disseminate within the profession).

^{252.} A lawyer's competence to handle an issue depends on factors like the "relative complexity and specialized nature of the matter, the lawyer's general experience, the lawyer's training and experience in the field in question, the preparation and study the lawyer is able to give the matter." MODEL RULES, *supra* note 1, R. 1.1 cmt. para. 1. This may explain why innovative practice is typically limited to a small group of high-powered private firms, since they may be uniquely positioned to satisfy these criteria for highly complex transactions and corporate structures. *See supra* text accompanying notes 104–112.

^{253.} See supra note 236; see also MODEL RULES R. 1.2(d) (noting that a lawyer may "counsel or assist a client to make a good faith effort to determine the validity, scope, meaning or application of the law").

endeavor" ²⁵⁴ can produce ethical quandaries in the legal contexts we have been discussing. As it turns out, corporate attorneys and cause lawyers nevertheless find ways to innovate and experiment within the bounds of ill-fitting professional ethics by carefully selecting their clients and carefully defining their clients' goals.

Corporate attorneys face a conceptual challenge. As Milton C. Regan explains, "[t]he lawyer who represents a corporation represents an abstraction: her client is the corporate entity rather than any of the individuals who act on its behalf." The challenge of serving a legal construct may explain why corporate lawyers often act in an advisory capacity, helping to guide the direction of the corporation in addition to meeting its basic legal needs. To a certain extent, corporate lawyers collapse the distinction between the ends and means of representation: they serve the interests of their client, but may also play an active role in determining what those interests are. Innovative lawyers who develop new legal products and approaches may suggest goals for the corporation that are only possible by virtue of the attorneys' expertise and creativity. If all goes well, the corporation gains a competitive edge and the law firm bolsters its reputation for cutting-edge work.

Cause lawyers face a similar conceptual challenge, since they advocate on behalf of a social movement that may have divisive constituent factions. ²⁵⁸ In order to get to the courtroom, however, they must attach the cause to a particular client capable of meeting the requirements of standing. ²⁵⁹ Using individual cases as vehicles for broader legal reform seems to defy the Model Rules' edict for zealous "advocacy upon the client's behalf," ²⁶⁰ which is why cause lawyers are perceived by some as "a deviant strain within the legal profession." ²⁶¹

^{254.} MODEL RULES, supra note 1, R. 1.3 cmt. para. 1.

^{255.} Regan, supra note 105, at 199.

^{256.} See Donald K. Langevoort & Robert K. Rasmussen, Skewing the Results: The Role of Lawyers in Transmitting Legal Rules, 5 S. CAL. INTERDISC. L. J. 375, 377 (1997) (noting that business law "is probably the setting in which elite lawyers are most widely employed in an advisory capacity"); Powell, supra note 51, at 432.

^{257.} See supra notes 36 and 37 and accompanying text (describing the traditional division of authority as one where the client determines the goals of representation and the lawyer decides the means).

^{258.} See supra note 102 and accompanying text; see also Eastman, supra note 132, at 801 ("Sometimes I wondered who my client was—the person with the name, the class she represented, or the issue behind her....").

^{259.} See supra note 53. Unlike social movements, corporations are legal entities that are capable of suing and being sued as if they were people. See, e.g., Louisville, Cincinnati, and Charleston R.R. Co. v. Letson, 43 U.S. (2 How.) 497, 555 (1844) (superseded on other grounds by statute as noted in Hertz Corp. v. Friend, 559 U.S. 77 (2010)).

^{260.} MODEL RULES, supra note 1, R. 1.3 cmt. para. 1.

^{261.} Sarat & Scheingold, *supra* note 211, at 2. These authors cite cause lawyers' unabashed partisanship as an additional component of their deviancy. The Model Rules note that a "lawyer's

What happens, for example, when the lawyer has the opportunity to settle a case, or to win in court on a technicality? Both these options could provide swift and definitive resolution for the client, but would fail to establish the precedent the lawyer was hoping for. ²⁶² Some clients may be reluctant to risk victory on their personal dispute, or to endure the publicity associated with being the face of the case. Under the Model Rules, the lawyer could discuss the goals of litigation and attempt to persuade the client to stay the course, ²⁶³ but would ultimately have to accede to the client's demands. ²⁶⁴

To avoid this problem, experienced cause lawyers typically screen potential clients to make sure they are willing to prioritize the movement's goals over any personal concerns. 265 There would seem to be no conflict under the Model Rules if the client is as enthusiastic about social reform as the lawyers themselves. Clients are tasked with determining the goals of representation, which could reasonably involve decisions like declining settlement offers and pushing for a trial. In such a scenario, the whole business of cause lawyering can be recast as client-centered advocacy on behalf of a social-minded client. 266 These cause

representation of a client . . . does not constitute an endorsement of the client's political, economic, social or moral views or activities," MODEL RULES, *supra* note 1, R. 1.2(b), but cause lawyers are "eager to take sides in social conflict and to identify themselves with the sides they take," SOMETHING TO BELIEVE IN, *supra* note 20, at 9. Thus, they "destabiliz[e] the dominant understanding of lawyering as properly wedded to moral neutrality." Sarat & Scheingold, *supra* note 211, at 2.

- 262. MELTSNER & SCHRAG, supra note 59, at 2; see also In re Primus, 436 U.S. 412 (1978) (noting that the NAACP represents individual clients in segregation cases but rejects "any relief short of full integration"). But see MODEL RULES, supra note 1, R. 1.2(a) ("A lawyer shall abide by a client's decision whether to settle a matter."). For an example where settling a dispute concerning a specific agency decision vitiated standing for the purposes of challenging the underlying rule, see Summers v. Earth Island Institute, 555 U.S. 488 (2009).
- 263. See MODEL RULES, supra note 1, R. 1.2 cmt. para. 2 (noting that in the event of a disagreement, "the lawyer should... consult with the client and seek a mutually acceptable resolution.").
- 264. MODEL RULES, *supra* note 1, R. 1.2 cmt. para. 1 (noting that the client has "the ultimate authority to determine the purposes to be served by legal representation"). Negotiations over the goals of representation also create the potential for sophisticated cause lawyers to manipulate less educated clients. *See* DAVID LUBAN, LAWYERS AND JUSTICE: AN ETHICAL STUDY 317 (1988); Loewy, *supra* note 195, at 1884–85.
- 265. See MELTSNER & SCHRAG, supra note 59, at 82 (noting that many cause lawyers will "accept only clients who are willing to be test case litigants" and all that that entails); see also CARPENTER, supra note 96, at 131–34 (explaining how two men arrested for sodomy were hesitant about a protracted public legal campaign, but were ultimately persuaded to act as test case litigants after hearing about the history of the LGBT rights movement).
- 266. Some have argued that cause lawyering is only truly ethical when it incorporates the principles of informed consent, as in clinical research. See Loewy, supra note 195, at 1892; The Plaintiff as Person, supra note 132, at 1512. Warning potential clients about the implications of participating in cause-oriented litigation is both commendable and prudent, but a rigorous informed consent requirement may fail to assist vulnerable clients any more than cause lawyers' consciences already do. This has to do with the specific nature of legal practice, see Etienne, supra note 41, at

lawyers have broad goals of generalized impact, which means they are well out of the zone of routine practice. Nonetheless, they manage to adhere to the letter of the Model Rules and the spirit of client-centered zealous advocacy, despite the fact that the true nature of their motivations falls outside the scope of practice envisioned in those rules.

2. Implications for Reform: Proceed with Caution

The initial inquiry of this Note focused on similarities in the actual processes of innovation in experimentation in medicine and law. Despite the many shared features, the foregoing discussion suggests that imposing medicine's dualistic regulatory model in the legal context would be inappropriate or at least unnecessary. The Model Rules do not explicitly acknowledge experimentation, but the two innovative strains of lawyers discussed here have nonetheless settled into a comfortable quasi-compliance. The safeguards of conscience and client satisfaction prevent attorneys from trampling clients' desires in a quest for legal change.

Thus, an awareness of legal experimentation may not in and of itself suggest new directions for regulatory reform, but it can certainly play a role in informing the existing debate over proposed changes to the Model Rules. The intensifying global competition for legal services²⁶⁷ has generated growing interest in novel approaches to payment, employee compensation, and practice management.²⁶⁸ Some argue that these structural adjustments are inhibited by regulatory restrictions, such as prohibitions on multi-jurisdictional or multi-disciplinary practice²⁶⁹ or the rules on conflicts of interest.²⁷⁰ A full discussion of specific proposals is beyond the scope of this Note, but those considering the merits of proposed changes would do well to reflect on the potential repercussions for legal activity all along the practice-experimentation spectrum.

As one example, consider a prominent set of recent proposals from a group

^{1256–58 (}rejecting the notion of informed consent as a waiver of conflicts of interest in cause lawyering), as well as with general problems with informed consent that have manifested in the research context, *see* Sugarman et al., *supra* note 21, at 6 (noting that despite informed consent, up to 40% of research subjects are unaware that they are enrolled in a research study); Tavernise, *supra* note 217 (explaining that fear of legal liability has resulted in "voluminous [informed consent] forms that do more to protect the institution than to empower the potential subject").

^{267.} See supra notes 126 and 127 and accompanying text.

^{268.} See, e.g., Erik Mazzone, The Innovation Imperative: Adapt or Die?, 39 L. PRAC. 4 (2013) (suggesting institutional innovations in response to recession and discussing barriers to innovation). 269. See Clark, supra note 223, at 1028–34 (2012); Hadfield, supra note 127, at 9.

^{270.} See Lawrence Fox, The Gang of Thirty-Three: Taking the Wrecking Ball to Client Loyalty, 121 YALE L.J. ONLINE 567 (2012), http://www.yalelawjournal.org/forum/the-gang-of-thirty-three-taking-the-wrecking-ball-to-client-loyalty (critiquing proposed changes to the rules on conflicts of interest).

of thirty-three large corporate firms, ²⁷¹ who argued that the current rules limit the firms' ability to effectively represent or sue certain entities. ²⁷² The proposed changes would likely allow firms to boost their profits by increasing the number and diversity of permitted clients and causes of action. These revisions would alter the landscape of attorney and firm incentives in routine practice, and some critics have expressed concern about the repercussions of weakening existing rules designed to safeguard attorneys' loyalty to their clients. ²⁷³

What about the effects on innovation? A firm that develops a novel legal product for Client A may have success replicating that product for other clients, as explained in Section II.C. The current rules on conflicts of interest and imputation prevent anyone in the firm from working on any matters on behalf of entities that are adverse to Client A,²⁷⁴ so loosened rules on loyalty would allow the firm to work with a much broader array of new clients. The proposal would thus seem to offer a means of accelerating innovation in the corporate world, since the experts who develop novel products and theories would be able to spread them more quickly to more potential clients.

On the other hand, relaxing the rules on conflicts of interest might also harm Client A's interests. Imagine Entity B who is adverse to Client A. After the innovative transaction is completed on behalf of Client A, Entity B might expressly seek out the same firm in order to take advantage of their unique expertise on the workings of that novel product. The proposal would permit such representation even while the firm continued to represent Client A, as long as the adverse representation of Entity B did not pertain to a "substantially related" matter. Thus, the potential for the adverse Entity B to gain an unfair advantage would depend on how far courts were willing to stretch that language. Courts that recognize the large role that some corporate attorneys play in guiding corporate strategy and direction which would significantly attenuate the proposal's impact.

Given the lack of specific rules for innovation in the law, the only

^{271.} See, e.g., id. (describing changes proposed by 33 AmLaw 100 firms).

^{272.} See Robert C. Bernius et al., Proposals of Law Firm General Counsel for Future Regulation of Relationships Between Law Firms and Sophisticated Clients, ABA COMM'N ON ETHICS 20/20 (Mar. 2011), http://www.abajournal.com/files/ABA_Ethics_Commission_Proposals_--_3-8-11.pdf (proposing a new set of rules on conflicts of interest and limitations on liability for "sophisticated clients").

^{273.} See Fox, supra note 270; Diane Lourdes Dick, Legal Ethics, Commercial Practice, and the Certainty Imperative: A Cautionary Note, 40 N. Ky. L. Rev. 279, 286–88 (2013).

^{274.} See MODEL RULES, supra note 1, R. 1.7, 1.8, 1.10; see also Fox, supra note 270, at 572–74 (discussing rules on conflicts of interest).

^{275.} Bernius et al., supra note 272, at 4.

^{276.} See supra notes 255-257 and accompanying text.

protections for clients and for society are those built into the general professional code of conduct. A change like loosened restrictions on conflicts of interest may well alter firms' decision making on when and how to pursue legal outcomes with broad impacts beyond the specific case. These questions of incentives for firms and individual attorneys merit further discussion.

C. Attitudes Toward Rules

I conclude with a final contrast between the medical and legal professions that relates to their attitudes toward rules and authority. Doctors are trained to be "autonomous decision-makers" who make tough choices on the fly in the face of overwhelming uncertainty. Swapping one set of written rules for another when physician-researchers switch from medical practice to clinical research may create new legal obligations, but will not necessarily undermine the medical professional's deep-seated faith that she can trust her gut and follow her instincts.

Legal education is precisely the opposite, inculcating students with the habit of referring back to sources of authority and verifying compliance. Clever attorneys can always find a loophole, and it seems corporate and cause lawyers may have done just that with regard to the Model Rules: they've accommodated the requirements of client-centered advocacy by playing a role in defining their clients' goals, as well as by seeking out the right kind of clients. This latter behavior may once have been difficult to reconcile with state prohibitions on solicitation, the In re Primus decision took care of that problem. ACLU attorney Edna Primus did what cause lawyers do best when they encounter an objectionable law: she climbed up to the Supreme Court and used litigation to change it.

These prevailing professional attitudes about authority work in precisely opposite directions, which explains how they managed to produce the same ultimate effect of gravitating toward the center of the practice-experimentation spectrum. The medical profession is regulated by strict legal requirements on clinical research, but physician-researchers have learned to be comfortable making decisions in defiance of specific rules whenever doing so seems to be in

^{277.} Sage, *supra* note 67, at 59; *accord* Riskin et al., *supra* note 15, at 690 (noting that "[s]urgeons are fundamentally decision makers," which is why they "have historically been idea generators and creative practitioners within their craft").

^{278.} See Something to Believe In, supra note 20, at 51; Kutak, supra note 191, at 315; Sage, supra note 67, at 59 ("[R]ule-based governance is natural to lawyers, whose business is writing, interpreting, and enforcing rules.").

^{279.} See, e.g., MELTSNER & SCHRAG, supra note 59, at 86. This book was published four years before the *In re Primus* decision, and the authors sigh that "[w]ere it not for the ethical restrictions on advertising and solicitation, the public interest lawyer might simply identify the characteristics of the ideal plaintiff, locate him, and ask him if he would mind lending his name to a suit."

^{280.} See supra text accompanying notes 224-229.

the best interest of their patients. Innovating lawyers, on the other hand, face no additional regulatory strictures on their work, but their rule-abiding tendencies result in processes of innovation and experimentation that often fully comply with the demands of the practice-centric Model Rules of Professional Conduct.

VI. CONCLUSION

"Trial and error" is a familiar heuristic for problem solving that involves repeated attempts with varied methods until an approach finally works or generates clues for further refining the strategy. Clinical trials and judicial trials both demand a far more systematic approach, but they do involve the risk of "error" to the extent that patients and clients may be subjected to the risk of the unknown, albeit often with their consent. In routine practice, such risk would only be imposed when it furthered the principal's own goals, but experimentation is precisely designed to discover the unknown, using individual cases to map out new territory with "generalizable knowledge."

Moving along the spectrum from routine practice to experimentation involves a growing focus on generalizable knowledge as agents abstract away from the needs of individual principals. Successful innovative practice and experimentation also require deep professional expertise and resources, whether in the form of financial or human capital. As a result, these activities tend to be concentrated in practice settings like academic medical centers, public interest law organizations, and prestigious private firms.

Though the processes of innovation are similar across medicine and law, there are notable differences arising out of the unique structure of the American legal system. The two professions also face starkly divergent regulatory models: medicine has a bright line dividing clinical practice from clinical research, while lawyers of all stripes are governed by the same code of professional ethics. Nevertheless, professionals all along the spectrum in both occupations seem to lean toward the center, combining the novelty of innovation with the principal-centered orientation of traditional practice. In this way, medicine and law achieve a rough balance in according equal weight to principles and principals.

The Young, the Old, and the Economists: Rethinking How Agencies Account for Age in Cost-Benefit Analysis

Daniel Herz-Roiphe*

ABSTRACT:

Federal agencies count all fatalities prevented by regulation as having the same value for the purposes of cost-benefit analysis, making no adjustment for the age of the person saved. This uniform valuation is guided by empirical studies that find that the young are not willing to pay more than the elderly for small risk reductions in private markets. This Note argues for a different approach. It proposes that agencies take account of a previously ignored body of "public choice" research that finds that most individuals think government should adopt lifesaving programs that benefit the young over those that benefit the old. These data illustrate a divergence between people's private and public preferences. While the economic theory that guides current agency practice prioritizes the former over the latter, this Note argues that it should be the other way around. The Note maintains that public choice data reflect a wider range of societal commitments than individual willingness-to-pay metrics, and therefore that the use of public choice data could help agencies satisfy their mandate under Executive Order 13,563 to engage in broader forms of analysis. The Note also posits that public choice data actually provide a better guide to the welfare consequences of prioritizing lifesaving regulations for different age groups than do individual willingness-to-pay data. It accordingly recommends a new system of age adjustment based on public choice results.

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RETHINKING AGE IN COST BENEFIT ANALYSIS

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INTRODUCTION

Seventy-three-page technical addenda to Environmental Protection Agency (EPA) regulatory analyses do not usually attract much attention. But, as EPA Administrator Christine Todd Whitman would discover in the spring of 2003, every rule has its exceptions.

The trouble started in early April, when no fewer than seventeen senior citizens took to the microphone at an EPA-sponsored "Listening Session" to excoriate Whitman over the Agency's recently released *Methodologies for the Benefit Analysis of the Clear Skies Initiative*. As the angry seniors' comments revealed, this dry quantitative assessment, which reviewed the consequences of reducing emissions from electric power-generating sources, had done something quite controversial.²

The problem arose from the EPA's method of putting a price on human life in order to monetize the health and safety gains associated with cleaner air. The mere fact that the agency had engaged in this kind of arcane arithmetic was unremarkable, as dozens of agency cost-benefit analyses do the same every year. However, the way in which the *Clear Skies* analysis had carried out its life pricing was unusual, and struck many of the Listening Session's guests (or perhaps more importantly, the representatives from the Public Interest Research Group (PIRG) who coordinated the seniors' demonstration³) as morally obscene.

Calculating the value of a statistical life (VSL) requires deciding whether all lives count for the same amount. In particular, should the young, who have long lives ahead of them, receive the same weight as the elderly, who are likely to die much sooner? The *Clear Skies* analysis caused trouble because of the approach it took to this dilemma. In its primary benefit calculation, the analysis used a constant VSL of \$6 million to monetize each of the fatalities prevented by the *Clear Skies Initiative*. In a sensitivity analysis, however, the report lowered the VSL for individuals over sixty-five by 37%.

It was this "senior discount" that galvanized the well-organized army of seniors to challenge the EPA's analytical techniques at the Listening Session, 6

^{1.} For a transcript of the proceedings, see *Comments from the Tampa, FL Listening Session*, EPA, http://www.epa.gov/aging/listening/2003/tampa.htm (last visited May 23, 2012).

^{2.} Technical Addendum: Methodologies for the Benefit Analysis of the Clear Skies Initiative, EPA 4 (Sep. 2002), http://www.epa.gov/clearskies/tech_adden.pdf [hereinafter EPA Methodologies].

^{3.} See Cindy Skrzycki, Under Fire, EPA Drops the "Senior Death Discount," WASH. POST, May 13, 2003, at E.01.

^{4.} EPA Methodologies, supra note 2, at 33 (citing this VSL estimate in 1999 dollars).

^{5.} Id. at 35

^{6.} The policy's opponents included AARP Director of Federal Affairs David Certner, who said he was "deeply troubled" by the senior discounting policy. Skrzycki, *supra* note 3.

and the resulting political firestorm would burn throughout the spring. At event after event, Whitman was greeted by crowds of angry protesters who wielded signs proclaiming "seniors on sale" and distributed pamphlets denouncing the EPA's decision to make seniors "worth 3/5 of a person." (In a cruel twist of fate, the adjustment used in the EPA's analysis turned out to be virtually identical to the infamous discount of slaves that appeared in the Three-Fifths Clause of the original U.S. Constitution.) By May, Whitman had seen enough. At a Listening Session event in Baltimore, she preempted the litany of angry comments by declaring: "The senior discount factor has been stopped It has been discontinued [by the OMB (Office of Management and Budget)]. E.P.A. will not, I repeat, not, use an age-adjusted analysis in decision making." The House of Representatives quickly followed suit, barring funding for any analyses that employed such a technique —a powerful testament to the fact that "tangling with the AARP can be more dangerous to a politician than blocking the entrance to the Boca Raton Sizzler when it opens for the early bird special." [10]

This fracas sounded the death knell for senior discounting in cost-benefit analysis (CBA). In its wake, Office of Information and Regulatory Affairs (OIRA) Administrator John D. Graham circulated a memo advising all agencies to discontinue their use of VSL age adjustments. Subsequently, OMB's Circular A-4, which provides official executive branch guidance on conducting CBA, warned agencies that they "should not use an age-adjustment factor in an analysis using VSL estimates." 12

Public outrage is not the only reason why senior discounting has fallen out of favor, though. The regulatory establishment may have retreated from the practice in response to popular pressure, but it defends its current use of uniform mortality risk valuations by pointing to empirical data. Agencies calculate the dollar value of a prevented fatality under the assumption that "the value of a reduction in mortality risk . . . is what a person is willing to pay for it." The

^{7.} Skrzycki, supra note 3, at E2.

^{8.} See Katherine 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.

^{9.} H.R. 2673, 108th Cong. div. G, tit. IV, § 419 (2004).

^{10.} Robert Hahn & Scott Wallsten, Whose Life Is Worth More? (And Why Is It Horrible to Ask?), WASH. POST, June 1, 2003, at B3.

^{11.} Memorandum from John D. Graham, Administrator, Office of Information and Regulatory Affairs, to the President's Management Council (May 30, 2003). http://www.whitehouse.gov/sites/default/files/omb/assets/regulatory_matters_pdf/pmc_benefit_cost_memo.pdf.

^{12.} Circular A-4: Regulatory Analysis, U.S. OFFICE OF MGMT. & BUDGET 30 (Sept. 17, 2003) [hereinafter Circular A-4], http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a004/a-4.pdf.

^{13.} Sci. Advisory Bd., Advisory on EPA's Issues in Valuing Mortality Risk Reduction, EPA, at D-10 (Oct. 12, 2007), http://nepis.epa.gov/Adobe/PDF/P10007U3.pdf.

VSL is accordingly determined by looking at empirical studies of how much individuals are willing to pay to reduce small risks to their lives. ¹⁴ Any age adjustment responds to what these empirical studies show.

In 2003 this approach pointed towards senior discounting, because some research at the time suggested that the elderly might be less willing to pay for safety than their younger counterparts. Since then, however, new evidence has emerged challenging the idea that age decreases individuals' willingness to pay (WTP) to reduce mortality risks. As a result, at present, adjusting the VSL for age is not only politically problematic but also, according to the postulates of welfare economics, inaccurate. The logic underlying traditional CBA is the logic of the market—it seeks to give everyone the amount of safety she is willing to pay for. Therefore, unless dramatic new evidence on the relationship between age and WTP for risk reductions were to emerge, orthodox economically oriented policymakers would see little reason to account for age in regulatory analyses.

Yet there is something missing from this picture, something that seems lost on the senior discount's angry opponents, its beleaguered creators, and, most of all, the technocrats who believe this is all a question of choosing the right econometric model: As a society, how do we feel that government should allocate lifesaving resources between the old and the young? In the midst of the senior discounting tumult of 2003, few stopped to consider a fairly intuitive point that the economist Alan Krupnick made to the New York Times: "If you ask people on the street whether they prefer a policy that saves the life of a young person or an elderly person, I think most people, including the elderly, would save the young person." As it turns out, Krupnick's conjecture is supported by more than just intuition. A large literature explores precisely this question by eliciting individuals' preferences over government lifesaving programs that benefit different age groups. Unsurprisingly, these studies identify an

^{14.} See Lisa A. Robinson, *How US Government Agencies Value Mortality Risk Reductions*, 1 Rev. Envtl. Econ. & Pol'y 283 (2007), for a comprehensive overview of government practice.

^{15.} EPA Methodologies, supra note 2, at 35 (citing Michael Jones-Lee, The Economics of Safety and Physical Risk (1989)).

^{16.} See Joseph Aldy & W. Kip Viscusi, Age Differences in the Value of Statistical Life: Revealed Preference Evidence, 1 Rev. Envtl. Econ. & Pol'y 241 (2007); Alan Krupnick, Mortality Risk Valuation and Age: Stated Preference Evidence, 1 Rev. Envtl. Econ. & Pol'y 261 (2007).

^{17.} See NAT'L ACAD. OF SCI., ESTIMATING MORTALITY RISK REDUCTION AND ECONOMIC BENEFITS FROM CONTROLLING OZONE AIR POLLUTION 157 (2008) ("Empirical evidence of how WTP varies with population and risk characteristics is not sufficiently consistent to support a change in th[e] practice [of using constant VSL].").

^{18.} Id.

^{19.} John Tierney, *Life: The Cost-Benefit Analysis*, N.Y. TIMES, May 18, 2003, http://www.nytimes.com/2003/05/18/weekinreview/life-the-cost-benefit-analysis.html.

overwhelming desire to prioritize the young over the old.²⁰

In spite of their apparent relevance to public policy, however, these studies play no role in any cost-benefit analysis whatsoever. Because of its grounding in neoclassical welfare economics, current regulatory practice relies solely on evidence of how much individuals are willing to pay for small reductions in their risk of dying. It is oblivious to research on how society wants to see its regulatory priorities ordered.

This Note challenges agencies' methodological narrow-mindedness. It argues that that the traditional economic approach to age adjustment struggles to deliver on its self-proclaimed goal of maximizing social welfare, and decisively fails when the focus shifts to the broader type of analysis mandated by Executive Order 13,563, which calls on agencies to incorporate a wide range of societal concerns into their decision making.²¹

The possibility of using public choice studies to guide age-adjustment in cost-benefit analysis offers a more attractive vision of what regulatory analysis could look like. Specifically, public choice studies offer two advantages over the individual WTP evidence that undergirds the current regime. First, they provide a better guide to the welfare consequences of allocating risk reductions to individuals of different ages. This is because the conditions under which they elicit data are more likely to induce reflective contemplation and less likely to be corrupted by the influence of age-related changes in the marginal utility of money than individual WTP metrics are. Second, public choice studies respond to a broad range of citizens' beliefs on how to allocate lifesaving resources rather than only considering individual welfare, which allows them to provide a richer picture of sentiments on age adjustment. Therefore, incorporating public choice studies into cost-benefit analysis would help make the practice a better proxy for overall welfare and a more accurate reflection of society's full set of ethical convictions (including "extra-welfarist" values that go beyond individual wellbeing, such as fairness).

Part I provides an overview of the different methodologies employed by individual WTP and collective choice studies, respectively, and the divergent conclusions the two reach. It notes that current regulatory practice relies on the former but not the latter. Part II interrogates this choice on economists' own terms by asking which system of age adjustment provides the best proxy for overall welfare. It offers both traditional and behavioral economic arguments for why public choice data is actually better suited for this task than individual WTP metrics. Part III moves beyond welfarist analysis. It finds that individual WTP studies are fundamentally incapable of reflecting the broad range of extra-

^{20.} See infra Part I.

^{21.} See Exec. Order No. 13,563, 76 Fed. Reg. 3821, 3821 (Jan. 18, 2011).

welfarist concerns implicated by the question of how to prioritize risk reductions for individuals of different ages, but that public choice studies do a good job of capturing many of these considerations. It also attempts to reconcile public choice findings with the strong opposition to senior discounting expressed in 2003. Part IV discusses how to incorporate public choice data into regulatory practice in light of its apparent advantages. Part V concludes.

I. TWO WAYS OF ASKING A QUESTION

Individual WTP and public choice studies offer two fundamentally different approaches to the question of how to allocate lifesaving resources between different age groups. They also offer two fundamentally different answers. While the former approach looks at respondents' tradeoffs between risk and personal consumption and fails to find evidence for senior discounting, the latter investigates individuals' beliefs about how governments should prioritize different lifesaving projects, and reveals a strong preference for protecting the young over the old.

A. Individual WTP Studies

Individual WTP research proceeds in two primary ways: through revealed preference studies, which look at the wage premiums offered for risky jobs, and through stated preference studies, which survey respondents about their willingness to pay for hypothetical risk reductions. ²² Both of these techniques are market-based mechanisms—they seek to discover how much safety consumers would be willing to purchase in well-functioning markets. ²³ As a result, a public policy that responds to this type of research allocates safety between young and old with reference to the market. It holds that the young should have more safety than the old if, and only if, they are willing to pay more for it. ²⁴

As it turns out, the young are not willing to dole out more to protect themselves from harm. Revealed preference studies suggest that WTP for mortality risk reductions follows an inverted-U trajectory over the course of a lifespan, peaking in late middle age. Furthermore, the curve's rise is steeper than its decline, meaning that the average sixty-year-old is willing to pay

^{22.} See Robinson, supra note 14, at 283–84. The EPA, for example, relies on 26 empirical studies for its VSL estimate, of which 21 are labor market revealed preference studies and 5 are contingent valuation surveys. See Nat'l Ctr. for Envtl. Econ. Office of Policy, Guidelines for Preparing Economic Analyses, EPA, at B-1–B-2 (Dec. 17, 2010) [hereinafter EPA Guidelines], http://yosemite.epa.gov/ee/epa/eerm.nsf/vwAN/EE-0568-50.pdf/\$file/EE-0568-50.pdf.

^{23.} See Elizabeth Anderson, Value in Ethics and Economics 191 (1993).

^{24.} See, e.g., Sci. Advisory Bd., supra note 13, at 10.

^{25.} See Aldy & Viscusi, supra note 16, at 251-52.

considerably more to reduce mortality risks than the average twenty-year-old. Stated preference studies, meanwhile, have trouble finding any consistent relationship between age and WTP. A 2007 meta-analysis concluded that the data paints "a mixed and somewhat confusing picture." Neither set of studies, therefore, supports the conclusion that VSL decreases with age. 28

The absence of an age-related decline in VSL is not a surprise for economic theorists. For decades, many economists have predicted that older individuals might pay more for mortality risk reductions than their younger counterparts, largely because they have more financial resources available and fewer alternatives on which to spend them.²⁹ With safety, as with any other good, willingness to pay is a function of both the utility gained through consumption and the utility lost through foregone alternatives. Insofar as the old face relatively low opportunity costs for purchasing risk reductions because of their financial circumstances, they will spend more to protect their lives.

As a result, a market-based answer says that we should not employ a higher VSL for the young since they are not willing to pay more for risk reductions. It dismisses any other inputs as little more than cheap talk.

B. Public Choice Studies

Public choice research approaches the question quite differently. Instead of asking respondents to choose between their own money and their own safety, it asks them how society should allocate risk reductions between different groups—for example, whether a limited supply of flu vaccines should go to the young or the elderly first. These studies make no attempt to offer a roadmap for replicating market outcomes. They treat their respondents as citizens who must decide what their government should do, rather than as consumers who need only choose which private goods to purchase.

The literature finds that most individuals express a strong desire to allocate lifesaving resources to the young over the old. In one representative study, Maureen Cropper, Sema Aydede, and Paul Portney asked subjects to choose between lifesaving government medical programs that affected different age

^{26.} Id.

^{27.} Krupnick, supra note 16, at 274.

^{28.} The meta-analyses reflect the fact that more recent research, for example, Anna Alberini et al., Does the Value of a Statistical Life Vary with Age & Health Status? Evidence from the US and Canada, 48 J. ENVTL. ECON. & MGMT. 769 (2004), has largely failed to replicate the few early efforts, for example, EPA Methodologies, supra note 2, at 35 (citing JONES-LEE, supra note 15), that found a negative relationship between age and WTP.

^{29.} See, e.g., Donald S. Shepard & Richard J. Zeckhauser, Survival Versus Consumption, 30 MGMT. Sci. 423 (1984).

^{30.} See Meng Li et al., How Do People Value Life?, 21 PSYCHOL. Sci. 163, 164 (2010).

groups. Their results suggested that respondents were indifferent between saving one twenty-year-old and *seven* sixty-year-olds.³¹ Similarly, another team of researchers recently found that subjects were willing to trade the lives of ten sixty-year-olds for just one ten-year-old.³² Not all studies uncover such dramatic results, but the direction of preference is quite consistent³³: across many different surveys, individuals put a premium on saving the young over the elderly.³⁴

It is tempting to assume that these results are driven by the self-serving chauvinism of youthful respondents, but this is not the case. The preference for prioritizing younger lives is evident across age groups—both young and old alike seem to embrace the notion that society should focus its lifesaving efforts on younger citizens.³⁵ Indeed, when researchers ask respondents to explain their choices, the experimental subjects embrace a number of compelling justifications for favoring younger individuals—notably, that the young deserve priority because they have longer future lifespans, have not yet had as many opportunities for living, and still have their most productive years ahead of them.³⁶

Therefore, our preferences as citizens seem to diverge significantly from our preferences as consumers. While individuals are not willing to pay more to save their own lives when they are young, the principle that society should pay more to save young lives still enjoys widespread acceptance in public choice contexts.

C. The Current Approach

Economic theory's strident individualism and unwavering respect for consumer sovereignty leaves little room for the public choice approach. The traditional neoclassical view is encapsulated by W. Kip Viscusi, one of the pioneers of using VSL analysis in public policy, who writes that "[w]hat matters from the standpoint of benefit valuation is whether the personal willingness to pay has declined, irrespective of whether a third party government policymaker

^{31.} Maureen L. Cropper et al., *Preferences for Life Saving Programs: How the Public Discounts Time and Age*, 8 J. RISK & UNCERTAINTY 243, 243 (1994).

^{32.} Daniel Eisenberg et al., Valuing Health at Different Ages: Evidence from a Nationally Representative Survey in the US, 9 APPLIED HEALTH ECON. & HEALTH POL'Y 149, 150–53 (2011).

^{33.} See Paul Dolan et al., QALY Maximization and People's Preferences: A Methodological Review of the Literature, 14 HEALTH ECON. 197, 202 (2005) ("[M]ost studies suggest that health gains to the old are weighted less.").

^{34.} See, e.g., Fredrik Carlsson et al., Preferences for Lives, Injuries, and Age: A Stated Preference Study, 42 ACCIDENT ANALYSIS & PREVENTION 1814, 1817–19 (2010); Olof Johansson-Stenman & Peter Martinsson, Are Some Lives More Valuable? An Ethical Preferences Approach, 27 J. HEALTH ECON. 739, 744–46 (2008); Li et al., supra note 30, at 166–67; Aki Tsuchiya et al., Measuring People's Preferences Regarding Ageism in Health, 57 Soc. Sci. & Med. 687, 692 (2003).

^{35.} See Eisenberg et al., supra note 32, at 153; Li et al., supra note 30, at 165–67; Johansson-Stenman & Martinsson, supra note 32, at 746.

^{36.} See Eisenberg et al., supra note 32, at 152; Tsuchiya et al., supra note 34, at 693–95.

thinks that people should be willing to pay less for risk reduction if fewer years of life are being saved."³⁷

The regulatory state has resoundingly agreed. Current agency practice assumes that "the value of a reduction in mortality risk . . . is what a person is willing to pay for it." Accordingly, OMB recommends that age adjustment respond to "the effect of age on VSL [i.e., individual WTP] estimates." This approach elevates individual WTP data and leaves no room for a public choice approach. It ensures that regulatory analysis will respond to our preferences as consumers of risk in private markets, but ignore our preferences over what society should do. In the Parts that follow, I ask whether such an emphasis is justified.

II. WELFARE

In this Part, I challenge the consensus that basing VSL age adjustments on individual WTP best accomplishes the economist's traditional goal of maximizing social welfare. Public choice studies are less likely than WTP-based research to be corrupted by age-based differences in the marginal utility of money and by cognitive biases that make it difficult for individuals to value mortality risks. As a result, they are better designed to allow cost-benefit analysis to serve as a decision-making tool that points us towards welfare-enhancing policies.

A. What Is the Point of Cost-Benefit Analysis?

Determining how to account for age in cost-benefit analysis (CBA) requires answering the more fundamental question of what cost-benefit analysis is trying to accomplish in the first place.

CBA can trace its intellectual ancestry back to Jeremy Bentham, who believed in evaluating policy proposals by summing up the various pains and pleasures they generated. ⁴⁰ In spite of its classical utilitarian pedigree, however, modern CBA harbors no pretensions of realizing Bentham's grand goal of true hedonic calculus. By the early twentieth century, economists had already given up on the Benthamite exercise of comparing cardinal utilities across different persons. ⁴¹ In its place, they embraced the Pareto criterion, which sidesteps the

^{37.} W. Kip Viscusi, The Devaluation of Life, 3 Reg. & Governance 103, 112 (2009).

^{38.} Sci. Advisory Bd., supra note 13, at D-10.

^{39.} Circular A-4, supra note 12, at 30.

^{40.} See Jeremy Bentham, An Introduction to the Principles of Morals and Legislation 32 (Hafner Press 1973).

^{41.} See generally LIONEL ROBBINS, AN ESSAY ON THE NATURE AND SIGNIFICANCE OF THE ECONOMIC SCIENCE (1952) (rejecting the possibility of interpersonal utility comparisons).

problem of interpersonal utility comparisons by only conceding that a state of affairs A is better than an alternative B if at least one person is better off, and none is worse off, in A than in B.

The Pareto criterion, though fairly uncontroversial, is also excessively restrictive. Almost no government policy proposals could meet its stringent requirements. For the purposes of actual policy analysis, therefore, welfare economists turned to the Pareto criterion's funhouse mirror reflection, the Kaldor-Hicks test. A proposal passes Kaldor-Hicks if those who benefit from it could compensate those who are harmed and still have something left over—in other words, if the outcome created by the proposal could be transformed into a Pareto superior result through a costless transfer from its beneficiaries to its opponents (making it a "potential" Pareto improvement). 44

Modern cost-benefit analysis is traditionally conceived as a way of determining whether a hypothetical policy satisfies the Kaldor-Hicks requirement. Cost-benefit analysis assesses the desirability of a proposal A against the status quo B by tallying each affected individual's "compensating variation" for A—the amount of money that, if received in B, would make her indifferent between A and B. If the resulting sum is positive, then the proposed policy "passes" cost-benefit analysis, and must, by definition, satisfy the Kaldor-Hicks test as well. ⁴⁵

Yet Kaldor-Hicks is a dubious standard. Since the theoretical compensations it envisions never actually take place, it is difficult to say with confidence that all—or even most—Kaldor-Hicks improvements actually make the world better in any meaningful way. 46 Indeed, it is easy to imagine many circumstances in which they do not. The economist Uwe Reinhardt, for example, once noted that a world in which you agree to let me punch you in the face in return for twenty dollars, and then I break your nose and run off without paying is, according to the Kaldor-Hicks test, superior to a world without the assault and broken promise. 47 The potentially significant disconnect between Kaldor-Hicks efficiency and welfare (to say nothing of justice) makes it unclear whether we should embrace cost-benefit analysis merely because it approves policies that are Kaldor-Hicks

^{42.} See Daniel M. Hausman & Michael S. McPherson, Economic Analysis, Moral Philosophy, and Public Policy 136–40 (2d ed. 2006).

^{43.} See Guido Calabresi, The Pointlessness of Pareto: Carrying Coase Further, 100 YALE L.J. 1221–22 (1991).

^{44.} For an overview of Kaldor-Hicks, see RICHARD E. JUST ET AL., THE WELFARE ECONOMICS OF PUBLIC POLICY: A PRACTICAL APPROACH TO PROJECT AND POLICY EVALUATION 32–48 (2004).

^{45.} See LEE S. FRIEDMAN, THE MICROECONOMICS OF PUBLIC POLICY ANALYSIS 169 (2002) (grounding CBA in the idea of Kaldor-Hicks efficiency).

^{46.} See Ronald M. Dworkin, Is Wealth a Value?, 9 J. LEGAL STUD. 191, 196-201 (1980).

^{47.} Uwe E. Reinhardt, Reflections on the Meaning of Efficiency: Can Efficiency Be Separated from Equity?, 10 YALE L. & POL'Y REV. 302, 312–13 (1992).

efficient.

Matthew Adler and Eric Posner offer a far more compelling alternative. According to their account, CBA should be understood as a welfarist decision-making procedure that carries no moral weight in and of itself, but is justifiable because it can, if practiced correctly, help direct us towards welfare-enhancing policies while providing salutary constraints on the discretion of fallible agency policymakers. Moving from a standard wealth-maximizing justification for CBA to Adler and Posner's "weak welfarist" account puts the practice on firmer footing by eliminating the need to rely on Kaldor-Hicks efficiency as a legitimate standard of value. 49

It also changes our understanding of age adjustment. Under the Kaldor-Hicks approach, the point of CBA is to approve policies that are potential Pareto improvements. If we accept that premise, then we should adjust the VSL for age if, and only if, the young are willing to pay more for risk reductions than the old, because only a person who is willing to pay a lot for safety will have a high compensating variation for a policy that delivers more safety to him. Within this framework, therefore, measures of how individual WTP for safety vary with age are the only relevant data for policymakers.

Under Adler and Posner's conception of CBA, however, (or Bentham's, for that matter), the point of cost-benefit analysis is not to identify potential Pareto improvements, but rather to serve as a proxy for social welfare. ⁵⁰ In that case, we should adjust the VSL for age if, and only if, mortality risk reductions bring more welfare to younger individuals. This makes it far from obvious what type of evidence should govern CBA practice. The answer presumably rests on whether individual WTP or public choice metrics provide a better proxy for the differential welfare benefits of mortality risk reductions for the young and old. ⁵¹

B. Do Individual WTP or Public Choice Studies Better Approximate Welfare?

Two considerations weigh in favor of public choice studies over individual WTP research. Individual WTP studies are likely to be insensitive to what we do care about—whether mortality risk reductions bring greater benefits to the young

^{48.} See Matthew D. Adler & Eric A. Posner, New Foundations of Cost-Benefit Analysis 62–100 (2006).

^{49.} Id. at 63-69.

^{50.} A premise of this approach is that a person's willingness to pay for a good and the welfare she receives from it will not always mirror each other.

^{51.} Definitively answering this question would, of course, require an account of how to conduct interpersonal utility comparisons. While this problem deserves a more thorough treatment than this Note can give it, one possible solution comes from John Harsanyi's proposal to consider the preferences of impartial spectators over life-history lotteries. For an overview, see ADLER & POSNER, *supra* note 48, at 43–52.

or the old—and corrupted by a factor we should not care about—the differential marginal utility of money for different age groups. Public choice studies, by contrast, are completely uninfluenced by the interaction between age and the marginal utility of money, and significantly more likely to reflect relevant variations in the welfare effects of risk reductions for different age groups.

1. The Marginal Utility of Money

There is little doubt that studies of individual WTP for risk reductions are more highly influenced by age-based differences in the marginal utility of money than public choice studies are. Older individuals have, on average, significantly more financial resources available than the young, which drives up the amount they can spend on safety. While WTP studies often control for income, they still miss most of this age-based resource disparity by failing to control for wealth. Furthermore, even at any given level of resources, the elderly likely face low opportunity costs to spending on risk reductions, as their short remaining lifespans offer few attractive investment prospects, decreasing the returns to saving. Additionally, their high background mortality risks produce a "dead anyway" effect: since they are likely to die in the near future, they have powerful incentives to spend down their resources quickly. As a result, much of what individual WTP studies tell us is how the marginal utility of money varies with age, not how the benefits of a risk reduction vary with age.

While this information is highly relevant for individuals determining how much to pay for safety in private markets, it should not direct public regulatory policy. In private markets, consumers rightly vary their WTP for safety in response to the value of safety to them and the value of money to them. A cash-strapped individual might reasonably hesitate to purchase even a highly valuable risk reduction if doing so would require him to forego essentials like food and shelter. Policymakers, on the other hand, need not alter society's willingness to pay for safety based on the protected population's marginal utility of money. This is because in most cases, the beneficiaries of a government regulation do not also pay its costs. ⁵⁶ The *social* opportunity cost of paying for a regulation usually

^{52.} See Per-Olov Johansson, On the Definition and Age-Dependency of the Value of a Statistical Life, 25 J. RISK & UNCERTAINTY 251 (2002).

^{53.} James K. Hammitt, Valuing Changes in Mortality Risk: Lives Saved Versus Life Years Saved, 1 Rev. Envtl. Econ. & Pol'y 228, 237 (2007).

^{54.} See Yew-Kwang Ng, The Older the More Valuable: Divergence Between Utility and Dollar Values of Life as One Ages, 55 J. Econ. 1, 9–11 (1992).

^{55.} See Ariel Porat & Avraham Tabbach, Willingness to Pay, Death, Wealth, and Damages, 13 Am. L. & Econ. Rev. 45, 45–49 (2011); John W. Pratt & Richard J. Zeckhauser, Willingness to Pay and the Distribution of Risk and Wealth, 104 J. Pol. Econ. 747, 762 (1996).

^{56.} For an extensive treatment of this argument, see Cass R. Sunstein, *Valuing Life: A Plea for Disaggregation*, 54 DUKE L.J. 385, 434–39 (2004).

bears no relation to the financial circumstances of those it protects.⁵⁷

Choosing to base our approach to age adjustment on individual WTP is tantamount to pegging the level of safety that the government should provide to the financial situation of the individuals receiving it 58—something that we (rightly) refuse to do in most other contexts. 59 Therefore, if we hope to make CBA approximate welfare as closely as possible, we should adjust the VSL only in response to age-based differences in the value of mortality risk reductions, not age-based differences in the marginal utility of money. 60

Public choice studies fit the bill well in this respect because they are entirely unaffected by age-based differences in the marginal utility of money. Unlike individual WTP studies, they ask their subjects to choose between risks and other risks, not between risks and money. A respondent's personal finances have little direct effect on his preferences for, say, allocating flu vaccines between young and old.⁶¹ Accordingly, we need not be concerned that public choice data are primarily driven by opportunity cost effects.

2. Cognitive Biases

The real question, therefore, is whether public choice studies can accurately reflect the differential benefits of risk reductions to different age groups, or at least do so better than studies of individual WTP. One of the oldest traditions of economics maintains that individuals are the best judges of their own welfare. As John Stuart Mill famously argued, "with respect to his own feelings and circumstances, the most ordinary man or woman has means of knowledge

^{57.} The benefits of the Clean Air Act, for example, tend to accrue disproportionately to poor and minority communities in spite of the fact that the costs are largely borne elsewhere. See Matthew E. Kahn, The Beneficiaries of the Clean Air Act, 24 REGULATION 34, 35–38, (2001). This fact—along, of course, with egalitarian ethical convictions—helps explain why agencies do not bump up the VSL for the rich in spite of powerful evidence that the demand for safety displays positive income elasticity. See W. Kip Viscusi & Joseph E. Aldy, The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World, 27 J. RISK & UNCERTAINTY 5, 36–38 (2003).

^{58.} Policymakers do not appear to be oblivious to this fact. Circular A-4 tells agencies to "adopt a larger VSLY estimate for senior citizens because seniors face larger overall health risks and they may have accumulated savings to spend on health and safety." Circular A-4, supra note 12, at 30.

^{59.} For example, we refuse to adjust the VSL for race in spite of the fact that African-Americans display lower willingness to pay for risk reductions than whites. See W. Kip Viscusi, Racial Differences in Labor Market Values of a Statistical Life, 27 J. RISK & UNCERTAINTY 236, 252 (2003).

^{60.} See John W. Pratt & Richard J. Zeckhauser, Willingness to Pay and the Distribution of Risk and Wealth, 104 J. Pol. Econ. 747, 762 (1996).

^{61.} See, e.g., Eisenberg et al., supra note 32, at 152 (finding that income was "not significantly associated with reported preferences" on allocating lifesaving resources to different age groups).

^{62.} See LEONARD W. SUMNER, WELFARE, HAPPINESS, AND ETHICS 113-22 (1996).

immeasurably surpassing those that can be possessed by anyone else." Why, then, should we trust public choice studies, which measure how much third parties value risk reductions to different age groups, over studies of individual WTP, which measure what the members of those age groups think themselves?

The answer lies in the limits of human cognition. While neoclassical economics posits that individuals are always the best judges of their own welfare, modern psychology begs to differ. ⁶⁴ In some situations, humans act in ways that they would not endorse under conditions of full information and rationality. Decisions regarding how much mortality risk protection to buy are precisely the sorts of complex, affect-laden choices that are most likely to diverge from the stable, well-considered preferences of the agents that make them. ⁶⁵ As a result, there may be good psychological reasons to believe that individual WTP data are not particularly reliable, and that the public choice elicitation framework offers a more effective means of gauging individuals' reasoned understandings of how age affects the value of safety.

First among these reasons is that it is extremely difficult for a person to appreciate what the length of his expected future lifespan actually means. We intuitively believe that risk reductions are more valuable to twenty-year-olds than to eighty-year-olds because twenty-year-olds can be expected to live much longer. After all, lives are never truly "saved;" they are merely extended, and it seems highly relevant whether that extension is for six years or for sixty. An empirical study can accordingly give us meaningful information about the relative value of risk reductions to different age groups only if its subjects are at last somewhat attuned to the length of their future lifespans. If individuals are oblivious to this important consideration, then their choices carry little normative weight.

Unfortunately, human beings are notoriously bad at understanding how a good's magnitude affects it value. One well-known study found that different groups of subjects demonstrated identical WTP to save 2,000, 20,000, or 200,000

^{63.} JOHN STUART MILL, ON LIBERTY 124 (Edward Alexander ed., Broadview Press 1999) (1859).

^{64.} See, e.g., Daniel Kahneman & Richard H. Thaler, Utility Maximization and Experienced Utility, 20 J. ECON. PERSP. 221 (2006).

^{65.} See John Beshears et al., How Are Preferences Revealed?, 92 J. Pub. Econ. 1787 (2008); Cass R. Sunstein & Richard Zeckhauser, Dreadful Possibilities, Neglected Probabilities, in The Irrational Economist: Making Decisions in a Dangerous World 116 (Erwin Michel-Kerjan & Paul Slovic eds., 2010).

^{66.} An American twenty-year-old can expect to live, on average, for 58.8 more years, while an eighty-year-old's remaining life expectancy is only 9.1 years. *See* Elizabeth Arias, *United States Life Tables*, 2004, 56 NAT'L VITAL STAT. REP., Dec. 28, 2007, at 1, 3.

^{67.} See Michael J. Moore & W. Kip Viscusi, The Quantity-Adjusted Value of Life, 26 Econ. Inquiry 369, 369–70 (1988).

migratory birds,⁶⁸ while another discovered approximately equal WTP to clean all the lakes in Ontario or to clean just a few.⁶⁹ These findings of "magnitude neglect" have been replicated across a wide variety of contexts, including, tellingly, the size of mortality risk reductions⁷⁰ and the length of periods of time.⁷¹

Psychologists have generally found that individuals are significantly more likely to exhibit magnitude neglect when they are emotionally aroused, when the good in question is difficult to evaluate, and when they are forced to consider goods in isolation as opposed to in comparison to different-sized alternatives. All of these factors are present when a person considers how much she is willing to pay for a reduction in the probability of dying. The decision is affectively rich, involves evaluating highly unfamiliar and perplexing objects like "death" and "living the rest of life," and is performed in isolation, offering little opportunity for the purchaser to compare her future life to the future lives of others. As a result, it seems likely that individuals contemplating whether to purchase mortality risk reductions are insensitive to the size of their future lifespans. ⁷³

At least one study provides direct support for this idea. In a contingent valuation survey, Jill Morris and James Hammitt found no significant difference between current WTP for a risk reduction (in this case a hypothetical pneumonia vaccine) received at age sixty and current WTP for an equivalent risk reduction delayed until seventy. This initially perplexing finding makes perfect sense if individuals do not readily appreciate the fact that risk reductions confer more value when life expectancy is longer because they are oblivious to the significant

^{68.} William H. Desvousges et al., *Measuring Natural Resource Damages with Contingent Valuation: Tests of Validity and Reliability, in* CONTINGENT VALUATION: A CRITICAL ASSESSMENT 91, 94 (Jerry A. Hausman ed., 1993).

^{69.} Daniel Kahneman & Jack L. Knetsch, Valuing Public Goods: The Purchase of Moral Satisfaction, 22 J. Envil. Econ. & MGMT. 57, 65 (1992).

^{70.} See, e.g., Jonathan Baron & Joshua Greene, Determinants of Insensitivity to Quantity in Valuation of Public Goods: Contribution, Warm Glow, Budget Constraints, Availability, and Prominence, 2 J. Experimental Psychol.: Applied 107 (1996). For a review of the literature, see James K. Hammitt & John D. Graham, Willingness to Pay for Health Protection: Inadequate Sensitivity to Probability?, 8 J. RISK & UNCERTAINTY 33 (1999).

^{71.} See, e.g., Carey K. Morowedge et al., Duration Sensitivity Depends on Stimulus Familiarity, 138 J. Experimental Psychol.: General 177 (2009); Carol Varey & Daniel Kahneman, Experiences Extended Across Time: Evaluation of Moment and Episodes, 5 J. Behav. Decision Making 169 (1992).

^{72.} See Christopher K. Hsee et al., When Is More Better? On the Relationship Between Magnitude and Subjective Value, 14 CURRENT DIRECTIONS IN PSYCHOL. Sci. 234, 235–36 (2005).

^{73.} See Cass R. Sunstein, Lives, Life-Years, and Willingness to Pay, 104 COLUM. L. REV. 205, 234 (2004) ("It is possible that in contingent valuation studies or in market behavior, the number of years is 'telescoped' into a kind of single unit, called 'the rest of life."").

^{74.} Jill Morris & James K. Hammitt, Using Life Expectancy to Communicate Benefits of Health Care Programs in Contingent Valuation Studies, 21 MED. DECISION MAKING 468, 473–74 (2001).

impact that the length of a future life has on the amount of welfare it contains.

Public choice studies may help solve this problem. By asking respondents about risk reductions for others rather than for themselves, these studies avoid eliciting the affective arousal that comes with contemplating the prospect of one's own death. In addition, public choice studies promote comparative evaluation. Rather than ask respondents about the absolute value of saving twenty-year-olds or sixty-year-olds, they ask for a relative prioritization of age groups. Consequently, the public choice approach is far more likely to bring about the kind of reflective cognitive evaluation that responds to differences in magnitude. Indeed, the fact that younger individuals have more years left to live is one of the primary explanations public choice study respondents offer for prioritizing young lives. ⁷⁵

Of course, the preferences expressed in public choice studies likely respond to more than just welfare considerations. As a result, it is dubious to attribute the strong preferences identified by these studies solely to public perceptions of welfare benefits focusing on the safety of the young. But nonetheless, public choice studies likely offer a directionally accurate guide to the welfare consequences of age adjustment.

Individual WTP studies, by contrast, may not provide much useful information about the differential welfare benefits of safety for different age groups because persons contemplating risk reductions for themselves are likely to be insensitive to the magnitude of their future lifespans. Furthermore, any useful signals may be lost in the noise created by differences in the marginal utility of money between age groups.⁷⁷

Therefore, if we want to employ the CBA procedure that is most likely to recommend welfare-enhancing policies, we might more justifiably rely on the age adjustments suggested by public choice studies than on the individual WTP data that guide current agency practice.

III. MOVING BEYOND WELFARE

Cost-benefit analysis, as traditionally practiced, "is premised on the notion that public policy should impartially and objectively reflect the determinants of individual well-being, paying no heed whatsoever to goals or interests that are articulated at the collective level." In keeping with this tradition, the previous

^{75.} See Eisenberg et al., supra note 32, at 152; Tsuchiya et al., supra note 34, at 694.

^{76.} See infra Part III.

^{77.} See discussion supra Subsection II.B.1.

^{78.} DOUGLAS A. KYSAR, REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY 15 (2010); accord Frank Ackerman & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING 37 (2004); see also Anderson, supra note 23, at 190; Alexander Volokh, Rationality or Rationalism? The Positive and

Part defended the use of public choice data for age adjustment within a welfarist, individualist framework. Yet many critics find such reductionism unappealing; they argue that it renders regulation incapable of responding to a wide range of publicly held values⁷⁹ and saps health and safety protections of important expressive meanings.⁸⁰ Their views have recently penetrated the regulatory state, which appears to be moving towards a broader approach to policy analysis. President Obama's Executive Order 13,563—"a kind of mini-constitution for the regulatory state" —calls upon regulators to "take into account benefits and costs, both quantitative and qualitative," including "fairness," "distributive impacts," and "human dignity."

If, in line with Executive Order 13,563's dictates, we accept that regulatory analysis is about more than just welfare maximization, then the case for basing age adjustments on public choice studies instead of individual WTP metrics grows even stronger. Bublic choice studies may very well be better than their individual WTP counterparts at reflecting the differential welfare consequences of allocating safety to the young and old. Yet there is no doubt that they are more adept at incorporating extra-welfarist convictions—in particular, beliefs about fairness—that have a significant bearing on how society wishes to see its regulatory priorities ordered.

A. Incorporating Extra-Welfarist Concerns

The public choice elicitation method is, by its very nature, flexible. Experimental subjects asked which policy programs they prefer can pick one option or another for any reason—including reasons that do not concern what *they*, as individuals, would do, but instead what *we*, as a political community, should do. Individual WTP research, by contrast, offers its subjects a narrow choice—whether to purchase, or not purchase, a particular product for

Normative Flaws of Cost-Benefit Analysis, 48 Hous. L. Rev. 79, 90 (2011).

^{79.} ANDERSON, supra note 23, at 210.

^{80.} Kysar, *supra* note 78, at 101.

^{81.} Cass R. Sunstein, *The Real World of Cost-Benefit Analysis: Thirty-Six Questions (and Almost as Many Answers)* (Harvard Public Law, Working Paper No. 13-11, 2013), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2199112.

^{82.} Exec. Order No. 13,563, 76 Fed. Reg. 3821, 3821 (Jan. 18, 2011). Changing the way that CBA is conducted has profound implications for regulation, because CBA is mandated for all "economically significant" regulations by executive order. *See* Exec. Order No. 12,866, 3 C.F.R. 638 (1994); Exec. Order No. 12,291, 3 C.F.R. 127 (1982).

^{83.} I will not attempt restate all the arguments made by critics of narrow cost-benefit analysis—nor those of its defenders—here. I merely wish to explore the implications of a broader conception of cost-benefit analysis for the question of age adjustment. For an array of persuasive critiques of narrow CBA, see Kysar, *supra* note 78, at 99–119. For a full-throated defense of traditional CBA, see John D. Graham, *Saving Lives Through Administrative Law and Economics*, 157 U. PA. L. REV. 395 (2008).

themselves. It is, by design, incapable of responding to "goals or interests that are articulated at the collective level."⁸⁴

This disparity is particularly evident with regard to questions of fairness. The decision of how to allocate lifesaving resources between young and old is as much about equity as it is about efficiency. Life-years saved do not accrue to society collectively, but rather to particular individuals, and deciding which individuals deserve what is a thorny ethical problem. Some have argued that prioritizing the young over the old, even if welfare-enhancing, violates our commitment to equal respect for persons. Others counter that *failing* to prioritize the young is the true injustice, since it puts an unfair premium on the life-years of the elderly. Still others contend that the principles of equality actually require us to overweight the life-years of the young, since the young have enjoyed fewer opportunities for living thus far, whereas the old have already had their "fair innings" of life.

The key point is that individual WTP studies are fundamentally incapable of reflecting any of these considerations because they only elicit individuals' valuations of risk reductions for themselves, and offer no opportunity for respondents to indicate how their claims for safety compare to those of others. Public choice studies, on the other hand, specifically ask respondents to make interpersonal comparisons, and are therefore highly responsive to citizens' beliefs about fairness. Indeed, convictions regarding what is fair appear to be the primary drivers of subject behavior in public choice experiments. Aki Tsuchiya and his colleagues, for example, found that the most common explanation for their respondents' decisions to prioritize risk reductions for the young was a belief that the young deserved more protection because they had not yet lived as long. 90

Equity in lifespan allocation is not the only extra-welfarist concern driving public choice study results. Some researchers have found that subjects prioritized different age groups based on their belief that parents should receive greater

^{84.} KYSAR, supra note 78, at 15.

^{85.} For discussions of the ethical issues raised, see, for example, JOHN MCKIE ET AL., THE ALLOCATION OF HEALTH CARE RESOURCES: AN ETHICAL EVALUATION OF THE QALY APPROACH 47–73 (1998); and Klemens Kappel & Peter Sandoe, *QALYs, Age and Fairness*, 6 BIOETHICS 297, 311–16 (1992).

^{86.} See, e.g., John Harris, The Value of Life, 91–94 (1985).

^{87.} See, e.g., Sunstein, supra note 73, at 216-21.

^{88.} See, e.g., Alan Williams, Intergenerational Equity: An Exploration of the "Fair Innings" Argument, 6 HEALTH ECON. 117, 119 (1997).

^{89.} Cf. ANDERSON, supra note 23, at 211 ("Some of the concerns people have as citizens cannot in principle be expressed in their roles as consumers, but must be expressed through their political relations with other citizens.").

^{90.} Tsuchiya et al., supra note 34, at 694; accord Eisenberg et al., supra note 32, at 152.

protections because of their unique social role as family providers. 91 Others found that subjects prefer to allocate safety to the young because the young still have much to contribute to society. 92 The potential array of beliefs is virtually unlimited; the important takeaway is that public choice evaluation can incorporate them all.

The fact that the age adjustments suggested by public choice studies reflect a broad range of extra-welfarist concerns that individual WTP studies ignore altogether has important implications for the type of broad policy analysis recommended by Executive Order 13,563. If regulators are to "take into account benefits and costs, both quantitative and qualitative," including "fairness" and "dignity," then it is essential that they incorporate measures like public choice data. Employing metrics that respond to all of the potential reasons citizens could have for preferring one approach to another—including those that only arise at the collective level—enables policymakers to take account of concerns like equity and distributive justice. This type of inclusive review is impossible if regulators restrict themselves to individual WTP metrics, which only reflect narrow welfare considerations.

B. Do Public Choice Studies Accurately Reflect Societal Convictions?

Some might nonetheless question whether public choice studies accurately mirror society's consensus on VSL age adjustment, or challenge whether views expressed through a (admittedly very sophisticated) form of "opinion polling" should be normative for public policy at all. Cass Sunstein, for example, one of the foremost scholars of cost-benefit analysis, attacks both the reliability of public choice data and the very idea of trying to determine our regulatory priorities by asking citizens what they think. He asserts that responses to public choice surveys "are highly likely to depend on how the questions are set up," and that "even if people do have stable answers to such questions, it is unclear that those answers have any moral standing for purposes of policy and law." 94

These criticisms deserve attention, but they seem overblown. Sunstein's characterization of public choice results as irredeemably volatile is unfair. While the magnitude of age-based preferences may vary across studies, their direction and significance are remarkably consistent. ⁹⁵ And if public choice studies do reflect stable preferences, then why should they not influence public policy?

^{91.} See, e.g., Cropper et al., supra note 31, at 258.

^{92.} See Eisenberg et al., supra note 32, at 152.

^{93.} Exec. Order No. 13,563, 76 Fed. Reg. 3821, 3821 (Jan. 18, 2011).

^{94.} Sunstein, supra note 73, at 242.

^{95.} For that matter, the differences in magnitude are small compared to the variance found in traditional VSL studies. The lowest and highest of the 26 VSL values used by the EPA, for example, vary by a factor of approximately 23. *EPA Guidelines, supra* note 22, at B-2 tbl.B-1.

Sunstein seems to worry that public choice studies will reflect objectively bad preferences that trample upon minority rights. "Suppose, for example," he speculates, "that a relevant population concluded that it would rather save one hundred white lives than one hundred African American lives." In such a circumstance a policymaker might, indeed, hesitate to act on the will of the majority. Yet age adjustment is not such a circumstance. One of the most remarkable features of public choice surveys is that they find that both young and old alike embrace the idea of prioritizing lifesaving for the young. 97 As a result, it is hard to write off their results as mere bigotry.

More generally, Sunstein asserts that "a deliberative democracy... should not make policy on the basis of opinion polls." Yet this argument seems to ignore the fact that an individual WTP-based age adjustment regime also looks to citizens' preferences—either as stated in surveys or as revealed in market behavior—for definitive guidance on what government should do. In fact, in a contest of which procedure more closely adhered to the ideals of "deliberative democracy," asking individuals how society should allocate its lifesaving resources would seem to have a clear advantage over asking individuals how much they were willing to pay to reduce risks to their own lives.

A more powerful objection to using public choice data in CBA is that the best expression of societal consensus on VSL age adjustment comes not from any empirical study, but rather from the powerful opposition to senior discounting expressed by protestors and activists in 2003. Sean Hannon Williams, for example, writes that

This public debate . . . essentially transferred the decision about which [age adjustment] model to follow from the agency to the political arena. In that arena, the normative assumptions underlying the models took center stage. Politicians and the public had to grapple with the potential justifications for providing less safety for the elderly than for others. The public ultimately rejected any such justifications and in doing so gave the EPA painfully clear guidance on which model contained the stronger normative assumptions. ⁹⁹

Yet this rosy view of democratic participation in the regulatory process deserves a second look. First, it is unclear exactly how many people made up the "public" that rejected senior discounting. The entire fracas may speak more to the power of interest group politics, and the considerable clout wielded by organizations like the AARP, than to the presence of widely held opposition to VSL age adjustment among the American people. Even more importantly,

^{96.} Sunstein, supra note 73, at 244.

^{97.} See supra notes 30-31 and accompanying text.

^{98.} Sunstein, supra note 73, at 245.

^{99.} Sean Hannon Williams, Statistical Children, 30 YALE J. ON REG. 63, 116 (2013).

discomfort with the EPA's senior discounting in 2003 may have stemmed from certain features of how it was implemented and what that implied about its goals rather than from any actual disagreement with the principle that regulatory policy should be especially solicitous of younger lives.

Specifically, much of the public opposition to senior discounting can likely be attributed to two concerns, one practical and the other expressive. I will label the first the "O'Donnell Critique" after Frank O'Donnell, an environmental advocate with Clean Air Watch. O'Donnell responded to a later controversy, which arose when the EPA decided to reduce its official VSL estimate by \$1 million in the spring of 2008, ¹⁰⁰ by saying that the EPA's move was "really a devious way of cooking the books," designed to make "the perceived benefits of cleaning up the air seem less." ¹⁰¹ The second type of objection is the "Boxer Critique," named for Senator Barbara Boxer, who once sponsored a bill that attempted to ban the EPA from ever reducing its VSL figure. When pitching her proposal, Boxer argued that "EPA may not think that Americans are worth all that much, but the rest of us believe the value of an American life to our families, our communities, our workplaces and our nation is no less than it ever has been." ¹⁰²

The O'Donnell Critique sees senior discounting as a transparent ploy to roll back regulatory protections in the service of nefarious corporate interests. Its quarrel is not with the devaluation of seniors, per se, but rather with the idea that any person should receive less protection than the already inadequate baseline. It helps explain why the Public Interest Research Group, a longtime opponent of deregulation, was particularly interested in fighting the EPA's *Clear Skies* analysis.

The Boxer Critique, on the other hand, responds to more metaphysical concerns. It identifies an expressive harm in "devaluing" the lives of seniors, or anyone else for that matter. Its objection is less with the differential policy choices that might result from senior discounting than with the very idea of saying that certain people are "worth more" than others, and the correspondingly unsavory implications of ever concluding that anyone is "worth less." ¹⁰³

^{100.} For a description of the controversy, see Viscusi, *supra* note 37, at 113–21.

^{101.} David A. Fahrenthold, *Cosmic Markdown: EPA Says Life Is Worth Less*, WASH. POST, July 19, 2008, http://articles.washingtonpost.com/2008-07-19/news/36859681_1_human-life-statistical-life-air-pollution.

^{102.} Press Release, Sen. Barbara Boxer, U.S. Sen. Comm. on Env't & Pub. Works (July 11, 2008), http://www.epw.senate.gov/public/index.cfm?FuseAction=Majority.PressReleases &ContentRecord_id=13d16bd9-802a-23ad-4796-ab5314d6439d&Region_id=&Issue_id=.

^{103.} This reaction speaks to the tremendous gap between the way the word "value" is used by economists and by laypersons. See Trudy Ann Cameron, The Value of Statistical Life: [They] Do Not Think It Means What [We] Think It Means, 28 Ass'N OF ENVIL. & RESOURCE ECON. NEWSL, Nov. 2008, at 36.

The key point is that neither the O'Donnell Critique nor the Boxer Critique is inherently opposed to the principle that government should prioritize risk reductions for the young over risk reductions for the old. Those of O'Donnell's persuasion might be satisfied as long as age adjustments took the form of "youth premiums" rather than "senior discounts," thereby ensuring that the modifications led to a greater overall level of regulatory protection. ¹⁰⁴ Meanwhile, the Boxer acolytes' concerns could be assuaged if agencies focused on monetizing life-years rather than lives. If the EPA were to conduct a sensitivity analysis that employed an invariant life-year value for all citizens, thereby indirectly placing greater value on younger lives, it might not generate the same revulsion among Boxerites as the 2003 senior discount, ¹⁰⁵ in spite of the fact that the two analytical techniques would have similar policy consequences.

It would require additional empirical research to establish whether the O'Donnell and Boxer Critiques, rather than genuine opposition to the idea of allocating regulatory protection on the basis of age, accounted for the public's adverse reaction to senior discounting in 2003. At the very least, though, thinking about the problem in this light shows how it is possible to reconcile the tremendous enthusiasm for age adjustment expressed in public choice studies with the fierce opposition to senior discounting expressed by the PIRG and AARP. The former is an endorsement of prioritizing risk reductions for the young. The latter may only be an objection to deregulation, and to the expressive meaning of a particular style of VSL age adjustment. Agencies could satisfy the preferences expressed in public choice studies without triggering O'Donnell's or Boxer's criticism simply by adopting the right kind of age adjustments (i.e., by monetizing life years rather than lives and by employing youth premiums in place of senior discounts).

We can therefore accept public choice studies as a valid expression of society's beliefs on how government should allocate lifesaving resources in spite of the ostensibly contradictory evidence offered by recent history. And as a result, if we want to make regulatory analysis respond to more than just narrow conceptions of individual welfare, basing age adjustments on public choice data rather than on individual WTP studies would be an advisable step to take.

^{104.} An example of how "youth premium" analyses can win support is offered by the Department of Transportation rule discussed *infra* Part IV.

^{105.} In fact, agencies have used invariant VSLY analyses before without raising many objections. See Sunstein, supra note 73, at 252. Life-year analysis is also pervasive in healthcare, where the quality-adjusted life-year, or "QALY," is a frequently employed metric. See Graham Loomes & Lynda McKenzie, The Use of QALYs in Healthcare Decision Making, 28 Soc. Sci. & MED. 299 (1989).

IV. How Should We Incorporate Public Choice Data into Cost-Benefit Analysis?

Once we accept the benefits of incorporating public choice studies into regulatory analysis, we are still left with the question of how to do so. Many scholars seem to believe that reform is only possible outside the confines of quantitative policymaking. Similarly, Executive Order 13,563 acknowledges that extra-welfarist concerns are often "impossible to quantify," and therefore will usually appear alongside, rather than as part of, traditional cost-benefit analysis. This offers one approach to how public choice studies could be incorporated into regulatory policy—as a qualitative corollary to cost-benefit analysis that might lead agencies to favor certain policies because of the relative youth of their beneficiaries in spite of the fact that their monetized benefits fall short of their costs.

An interesting example of this approach comes from the Department of Transportation's (DOT) recent rulemaking on rearview auto safety. Though DOT found that its stringent proposed standards would cost more than \$12 million per prevented fatality, which is well above standard VSL estimates, it nonetheless decided to proceed, noting that "the quantitative analysis does not offer a complete accounting." As DOT recognized, "[W]ell 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." Furthermore, the regulation would "in many cases, reduce a qualitatively distinct risk, which is that of directly causing the death or injury of one's own child." DOT made no attempt to quantify precisely how much more tragic a child's death—much less one caused by a parent—was than a regular adult fatality. It simply appealed to these considerations as qualitative reasons for adopting the regulation in spite of the fact that the quantitative accounting failed to add up.

While this represents one path for age adjustment, an alternative approach would be to integrate public choice directly into CBA. The results of public choice studies could support either VSL adjustments or the adoption of

^{106.} See, e.g., ANDERSON, supra note 23, at 210–16.

^{107.} Exec. Order 13,563, 76 Fed. Reg. 3821, 3821 (Jan. 18, 2011).

^{108.} See Federal Motor Vehicle Safety Standard, Rearview Mirrors, 75 Fed. Reg. 76,186 (proposed Dec. 7, 2010) (to be codified at 49 C.F.R. pts. 571 and 585).

^{109.} Id. at 76,238.

^{110.} Id.

^{111.} Id.

^{112.} It is interesting to note that this effort failed to inspire the type of popular backlash witnessed by the EPA's senior discounting in 2003. This likely reflects the fact that the age adjustments here took the form of "youth premiums" rather than "senior discounts." It may also result from people's greater willingness to accept differentiation between children and adults than between adults of different ages. *See* Williams, *supra* note 99, at 81–84.

something resembling a constant value-of-life-year measure. ¹¹³ Both of these techniques could roughly replicate the marginal rate of substitution between saving individuals of different ages evidenced by public choice studies. Agencies could routinely present analyses informed by traditional WTP metrics alongside those conducted with public choice data, using both to gain perspective on the policy in question. ¹¹⁴ This approach would resemble similar proposals scholars and regulators have offered for using child and cancer premiums. ¹¹⁵

The choice between these two alternatives—bringing public choice data in at the front end through direct incorporation into CBA, or in at the back as a means of supporting policymakers' discretion to override CBA—depends on what we want cost-benefit analysis to be. On one account, even progressive critics should seek to "mend, not end" CBA, 116 in which case it might be advantageous to make public choice studies part of the mending process. This approach has the advantage of preserving CBA's function as a check on agency discretion that keeps regulators from openly pursuing pro-regulatory or deregulatory agendas and promotes consistency across agencies. 117 It may also make it easier for voices advocating for broader policy analysis to avoid being silenced in the rulemaking process. 118

On the other hand, perhaps incorporating public choice studies directly into CBA only perpetuates the fallacy of trying to translate all of our moral concerns into a single measure of dollars and cents. Perhaps we want greater agency discretion as a means of openly acknowledging the value judgments inherent in our regulatory decisions, and exposing these judgments to political, rather than merely technocratic, scrutiny. In that case, it might be better to make public choice studies one of the many factors policymakers can qualitatively consider

^{113.} Current OMB guidance, by contrast, counsels against VSL age adjustment entirely, and instructs agencies to use higher VSLY values for senior citizen. *See Circular A-4*, *supra* note 12, at 30.

^{114.} See Williams, supra note 99, at 106–17 (discussing the benefits of an "alternate models" approach).

^{115.} See id. at 106 (child premiums); Valuing Mortality Risk Reductions for Environmental Policy: A White Paper, NAT'L CTR. FOR ENVTL. ECON. & EPA, 26 (Draft 2010), http://www.sra.org/sites/default/files/u32/EPA_Valuing_mortality_risk_2010.pdf (cancer premiums).

^{116.} RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH 10 (2008).

^{117.} See ADLER & POSNER, supra note 48, at 101.

^{118.} See Douglas A. Kysar, Politics by Other Meanings: A Comment on "Retaking Rationality Two Years Later," 48 Hous. L. Rev. 43, 76 (2011) (arguing that if "cost-benefit analysis is here to stay[,] . . . then proponents of environmental, health, and safety regulation would do well to start talking the talk as best they can").

^{119.} See Anderson, supra note 23, at 215 ("[N]o context-independent, global consequentialist formula for identifying and aggregating costs and benefits is generally valid [F]acts about costs and benefits must be provided in disaggregated form.").

^{120.} See Kysar, supra note 78, at 114.

alongside traditional CBA. Either way, there should be a role for public choice studies to play in regulatory analysis.

V. CONCLUSION

Public choice studies offer a more reliable window into citizens' preferences on age adjustment than measures of individual willingness to pay. First, they do a better job of capturing the differential welfare benefits of mortality risk reductions for different age groups by eliciting responses under conditions that induce reflective contemplation and minimize the corrupting influence of age-based differences in the marginal utility of money. Second, they incorporate extra-welfarist convictions that are ignored by individual WTP studies.

Public choice research therefore provides a more satisfying guide for VSL age adjustment than the individual WTP metrics that guide current practice. In light of this fact, agencies should rethink the role that alternative forms of evidence, such as public choice studies, play in CBA. Such open-mindedness could meaningfully reshape quantitative policymaking—especially in circumstances in which regulators are asked to determine the relative value of different kinds of benefits—making it more responsive to a broad range of societal convictions.

This would be a welcome development. It is, after all, important to remember what is really at stake when we talk about adjusting the VSL for age. At its base, this is a question about priorities. It turns on whether a community is willing to allocate more of its resources to save a young life than to save an older one. In a democratic polity, policymakers should engage with citizens' beliefs on such a fraught question rather than narrowly search for potential Pareto improvements. Regulators must accordingly consider what types of data most accurately reflect societal priorities. As long as public choice data fit the bill better than their individual WTP counterparts, they should not be ignored when agencies choose which lives to save.

