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Access to Medicine in an Era of Fractal Inequality

*Frank Pasquale**

“Money pads the edges of things,” said Ms. Schlegel. “God help those who have none. . . . You and I . . . stand upon money as upon islands. It is so firm beneath our feet that we forget its very existence. It’s only when we see someone near us tottering that we realize all that an independent income means.”

—E.M. Forster, *Howard’s End*¹

I. INTRODUCTION

Modern medical technologies are designed not only to ease suffering but also to enhance human powers.² How should scarce resources be allocated between these two goals? At first glance, any medical progress appears to be an unqualified gain. Yet many thoughtful people worry about a health care landscape warped by the excessive influence of money. Are disparities in buying power diverting essential resources from the poor in order to fund the frivolous pursuits of the wealthy? To what extent should individuals’ access to medicine depend on their purchasing power or citizenship?

These concerns are becoming increasingly important as new technologies of medical care and bodily enhancement develop. Moral qualms can be

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I offer my sincere thanks to the Beazley Institute of Health Law & Policy at Loyola University Chicago School of Law for inviting me to give three talks there as a Visiting Scholar in fall 2008; Cynthia Ho, John Blum, Larry Singer, Matthew Herder, Ann Weilbaecher, and many students were both hospitable hosts and insightful interlocutors. This essay combines the themes of my talks in response to the Beazley Institute’s *Symposium on Patents and Patients* in November 2008. I am very grateful for Kathleen Boozang’s comments on a draft, and for insights from Kevin Outterson, Carl Coleman, and Charles Sullivan. Mike Lee provided excellent research assistance.

1. E.M. FORSTER, *HOWARD’S END* 51-52 (1921).

2. Frank Pasquale, *Two Concepts of Immortality*, 14 *YALE J. L. & HUMANITIES* 73, 75 (2002) (describing legal and moral implications of regenerative medicine).

translated into laws which set floors (minimum access levels) and ceilings (maximum access levels) for the purchase and use of health technology. The desirability of such limits on the availability of technology to the poor and rich depends in part on the legitimacy of inequality generally. Relative deprivation in the present can lead to a better future for all, but it can also reinforce extant inequalities.

There are two metanarrative accounts of the relationship between inequality and health care. On a Whiggish, optimistic view, vast inequality can generate the capital necessary to fund investment in innovative health care technologies. Scholars like Richard Epstein have celebrated both general economic inequality and unequal access to health care particularly because, they claim, buying power at the top promotes investment in medical advances.³ Interpreted less charitably, inequality enables the well-off to bid away resources and opportunities from the poor.⁴ If an anti-baldness cure can generate billions of dollars in revenue while a new therapy for tuberculosis only generates hundreds of millions, for-profit pharmaceutical companies may well have a fiduciary duty to invest scarce research dollars in hair rather than health.⁵ Kevin Outterson has written

3. Epstein focuses particularly on pharmaceutical innovation. Audio recording: *Epstein vs. Epstein: Drug Price Subsidies*, The University of Chicago Law School Faculty Blog (May 18, 2007), http://uchicagolaw.typepad.com/faculty/2007/05/epstein_vs_epst.html (On May 4, 2007, Richard Epstein debated himself, in an event "billed as *Epstein vs. Epstein*, and the topic was "Why should the U.S. subsidize the world with our high prescription drug prices?").

4. See Jeanne Whalen, *Rich Nations Lock In Flu Vaccine as Poor Ones Fret*, WALL ST. J., May 16, 2009, at A12 ("A scramble among wealthy nations to guard against a swine-flu pandemic is raising concerns that billions of people in poorer countries could be left without adequate supplies of vaccine. . . . The emerging battle between the haves and have-nots underscores a major weakness in the global health system: Pharmaceutical companies have severely limited capacity to produce flu vaccines in emergencies."). Inequitable access to drugs may lead to breakdowns in the global public health system. *Id.* See also Martin Khor, *Indonesia's Move on Bird Flu Samples Highlights Key Access Issues*, THIRD WORLD NETWORK, Feb. 18, 2007, http://www.twinside.org.sg/title2/intellectual_property/info.service/twn.ipr.info.020714.htm ("Up to now, WHO Member States that experience bird flu outbreaks provide samples of the virus isolates to WHO collaborating centres. At these centres, the isolates are used in the process of creating vaccine seed stocks, frequently using patented techniques. WHO then provides the seed stocks to vaccine producers. But the vaccine producers, say many developing countries, are charging too much for the vaccines. Several countries raised the issue at the World Health Assembly last May.").

5. See Kevin Outterson, *The Vanishing Public Domain: Antibiotic Resistance, Pharmaceutical Innovation and Intellectual Property Law*, 67 U. PITT. L. REV. 67, 122-23 (2005) (discussing biases created by patent-centered innovation system); see also William Fisher & Talha Syed, *Global Justice in Health Care: Developing Drugs for the Developing World*, 40 U.C. DAVIS L. REV. 581, 583 (2007) (discussing geographic locations for concentrations of pharmaceutical firm research and development); see also Michael R. Reich, *The Global Drug Gap*, 287 SCI. MAG. 1979, 1979 (2000) (noting that research and development systems remain focused primarily on the health issues of the world's affluent countries).

eloquently about the resulting challenges to public health, and Thomas Pogge has highlighted the self-reinforcing deprivation that can result from these disparities.⁶

Neo-classical economics has been slow to recognize the dual effects of inequality, and even most of its critics in the behavioral economics school have not made unequal life chances a primary concern. While thousands of pages have been written about the balance between current access to drugs and future innovation, economists have explored less thoroughly the relationships between the buying power of the rich and the health status of the poor. Quantification-minded policymakers often seek a scientific estimate of the costs and benefits of particular policy balances. Yet the positive and negative metanarratives of inequality are hard to commensurate in a cost-benefit analysis: they involve long-term time perspectives,⁷ recognition of the interrelationships between politics and markets, and multiple unintended consequences.⁸ Whether one views inequality in health care access as fundamentally beneficial and necessary or burdensome and contingent depends on the type of society one wants to create; it does not depend centrally on cost-benefit analysis of different regimes of access. Once we complement economics' prime directive of wealth or utility maximization with other disciplinary perspectives, a new complexity of positive and normative approaches to inequality emerges. Philosophers, sociologists, anthropologists, historians, and many other scholars in the social sciences and humanities can help us evaluate the legitimacy and degree of inevitability of unequal access to medicine.

Internationally, janiform narratives of opportunity and deprivation persist in scenarios ranging from access to doctors, organ markets, or medical

6. Outterson, *supra* note 5 at 123; Thomas Pogge, *Why Inequality Matters*, in GLOBAL INEQUALITY 134, 143 (David Held & Ayse Kaya, eds., 2007). ("The most affluent understand very well that their future wealth is affected by the social rules. They will therefore generally use their influence on the design of the social rules towards defending and expanding their advantages. The richer the top 10 percent are relative to the rest of the population, the more their interests will differ from the interests of the rest and the greater their influence on the design of the social rules will be relative to the influence of the majority.").

7. Ecological economics has been grappling with these issues, but has not adequately informed the mainstream of the field. Both health and intellectual property law could benefit from more extensive application of principles of environmental economics. Frank Pasquale, *Toward an Ecology of Intellectual Property: Lessons from Environmental Economics for the Valuation of Copyright's Commons*, 8 YALE J. L. & TECH. 78 (2005).

8. Eric Turkheimer has recently defined social science as "the attempt to explain the causes of complex human behavior when there are a large number of potential causes, the potential causes are non-independent, and randomized experimentation is not possible." Turkheimer, quoted in Steve Hsu, *The Joy of Turkheimer*, INFORMATION PROCESSING, available at <http://infoproc.blogspot.com/2008/10/joy-of-turkheimer.html> (last visited on Jan. 15, 2010) (posting Turkheimer's slides from the talk "The Gloomy Prospect Wins;" this definition is at slide 12).

tourism. Domestically, scholars have questioned the level of distributive justice of many aspects of American health care finance.⁹ This essay will discuss these debates and briefly consider some of their implications for access to medicine generally.

Due to the expanding globalization of markets for health care, it is increasingly necessary to engage in the simultaneous discussion of both American and global inequality when discussing access to care.¹⁰ Several actual and proposed programs for increasing access to care in the U.S. (such as immigration of physicians and nurses from developing countries and medical tourism allowing U.S. citizens to obtain care abroad) could exacerbate access problems in less-developed countries.¹¹ Even the least advantaged citizens in the U.S. may exert purchasing power that draws medical resources out of reach of citizens in the developing world.

Despite the importance of these repercussions, however, discussions of inequality of access in the U.S. have not adequately focused on the degree to which domestic solutions may exacerbate international problems. Part II of this article explains one reason why: the rise of what I call “fractal inequality,” the repeatedly skewed patterns that characterize global, domestic, and even elite distributions of income and wealth. Fractal inequality explains why spending that seems trivial to those at the top of an income distribution may overwhelm the purchasing power of those in the middle, which in turn can dwarf the purchasing power of those at the bottom. The reallocative effects of higher spending on health care by the wealthiest can cascade down the distributive ladder.

Part III describes some of these effects in the U.S. health care sector, modeling the rise of concierge medicine, single specialty hospitals, and cosmetic surgery as epiphenomenal of the expansion of the purchasing power of wealthier Americans between 1975 and 2005. Each of these developments is part of a larger trend toward allocating medical resources in accordance with ability to pay as opposed to medical need. This reallocation of purchasing power has in turn spawned several stopgap measures to assure access to the underserved in the U.S., ranging from

9. See, e.g., Steffie Woolhandler & David U. Himmelstein, *Paying For National Health Insurance – And Not Getting It*, 21 HEALTH AFF. 88, 88 (2002).

10. Nathan Cortez, *Patients without Borders: The Emerging Global Market for Patients and the Evolution of Modern Health Care*, 83 IND. L.J. 71, 131 (2008).

11. This worry is one facet of a more general problem that Thomas Pogge identifies: global rules of trade and commercial exchange that systematically disadvantage the less developed world *vis a vis* the more developed world. THOMAS POGGE, *WORLD POVERTY AND HUMAN RIGHTS: COSMOPOLITAN RESPONSIBILITIES AND REFORMS* 203 (Polity Press, 2002) (discussing “radical inequality and our responsibility.”). *But see* THOMAS POGGE AND HIS CRITICS (Alison Jaggar, ed., Polity Press, forthcoming, 2011) (featuring essays by scholars, including Joshua Cohen, who take issue with Pogge’s characterization of responsibility for radical inequality).

medical tourism, to physician immigration, to promotion of “denturists” to serve those who cannot afford dentists.

Part IV examines how U.S. purchasing power may affect the overall global market for medical resources. While many commentators worry that a “brain drain” is afflicting residents of the nations from which physicians emigrate, others claim that remittances from emigrant physicians ultimately aid their nations of origin. Medical tourism has dual effects as well, both diverting doctors away from indigenous populations and supplying capital that may build health infrastructure in those nations.

In Part V, I examine some policy proposals designed to reduce the diversionary effect of global trade in medical resources and services while promoting its more positive outcomes. Though regulation is often the fastest way to stop certain exchanges from occurring, it can simultaneously be too blunt and too porous an instrument to achieve egalitarian policy goals. If properly targeted and allocated toward medical innovation, taxation of payments to concierge and cosmetic physicians, immigrant medical personnel, specialty hospitals, and purchasers of foreign organs may generate funding that assures better access to care in our fractally unequal world, along with the development of technology that will ease scarcity. Part VI concludes with some reflections on the strain that fractal inequality puts on notions of value, desert, and justice generally.

II. DEFINING FRACTAL INEQUALITY

A fractal is a shape that exhibits repeating patterns of “self-similarity”—the shape of the whole is observed both in its parts, and in parts of its parts.¹² Though they are not as reticulated as fractals observed in nature or geometry, patterns of income distribution also replicate at various levels—what I call “fractal inequality.” Just as distribution *among* rich and poor

12. BENOIT B. MANDELBROT, *THE FRACTAL GEOMETRY OF NATURE* 18 (1982) (most fractals are scaling, and thus exhibit invariance “under certain transformations of scale.”). See also MITCHELL WALDROP, *COMPLEXITY: THE EMERGING SCIENCE AT THE EDGE OF ORDER* 13 (1992); David G. Post & Michael B. Eisen, *How Long is the Coastline of the Law? Thoughts on the Fractal Nature of Legal Systems*, 29 J. LEGAL STUD. 545, 546-47 (2000) (“Fractals comprise a class of geometric figures that share some rather unusual characteristics. Although there is no generally accepted definition for the term, fractals can generally be characterized as complicated figures of infinite length that do not simplify when magnified, that is, whose structure repeats itself at all scales.”); Nicholas Taleb, *The Fourth Quadrant: A Map of the Limits of Statistics*, EDGE: THE THIRD CULTURE, Sept. 15, 2008, http://www.edge.org/3rd_culture/taleb08/taleb08_index.html (“There are two classes of probability domains—very distinct qualitatively and quantitatively. The first, thin-tailed ‘Mediocristan,’ the second, thick tailed ‘Extremistan’... Mediocristan corresponds to “random walk” style randomness that you tend to find in regular textbooks (and in popular books on randomness). Extremistan corresponds to a ‘random jump’ one. The first kind I can call ‘Gaussian-Poisson,’ the second ‘fractal’ or Mandelbrotian (after the works of the great Benoit Mandelbrot linking it to the geometry of nature).”).

countries is extremely unequal, distribution *within* many of these countries, including the U.S., is also extremely unequal. Generalizable studies of inequality are possible in part because of the fractal nature of the distribution of wealth and income.

A. Patterns of Income and Wealth Distribution

A few striking figures confirm the broad outlines of a fractal pattern of income and wealth distribution. After reviewing global economic figures, Thomas Pogge has concluded that:

Though constituting 44 percent of the world's population, the 2,735 million people the World Bank counts as living below its . . . \$2 per day international poverty line consume only 1.3 percent of the global product. . . . The high-income countries, with 955 million citizens, by contrast, have about 81 percent of the global product.¹³

We are used to hearing about 80/20 distributions (e.g., 20% of individuals in an organization may do 80% of the work), but as Pogge notes, that pattern *understates* the degree of global inequality, where roughly 15% of citizens enjoy 81% of global product and the bottom two fifths can barely access more than one percent of global product.¹⁴

One might object that prices are lower in poorer countries, so such figures obscure real economic conditions. W. Michael Cox and Richard Alm have argued that gross inequality in income does not necessarily translate into gross inequality in consumption.¹⁵ Nevertheless, even when such figures are adjusted to reflect the real purchasing power of individuals, they still reveal extreme disparities. As Branko Milanovic has documented:

The top 5 percent of individuals in the world receive about 1/3 of total world ([Purchasing Power Parity]-valued) income, and the top 10 percent one-half. If we take the bottom 5 and 10 percent, they receive respectively 0.2 and 0.7 percent of world total income. This means that the ratio between the average income received by the richest 5 percent

13. Thomas Pogge, *World Poverty and Human Rights*, 19 *ETHICS & INT'L AFF.* 1, 1 (2005); see also *Why Inequality Matters*, *supra* note 6, at 137 (arguing that increased economic inequality leads to increased political inequality).

14. POGGE, *supra* note 11, at 1.

15. W. Michael Cox & Richard Alm, *You Are What You Spend*, N.Y. TIMES, Feb. 10, 2008 at A12 (“[I]f we compare the incomes of the top and bottom fifths, we see a ratio of 15 to 1. If we turn to consumption, the gap declines to around 4 to 1.”). Cox and Alm’s focus on consumer goods like VCR’s and cell phones itself obscures large and growing inequalities in access to goods and services like health care, retirement and college savings, and reasonable commutes, and the dangerous debtloads accumulated by the poor and near-poor. ALAN TONELSON, *THE RACE TO THE BOTTOM: WHY A WORLDWIDE WORKER SURPLUS AND UNCONTROLLED FREE TRADE ARE SINKING AMERICAN LIVING STANDARDS* 21 (Westview Press, 2002) (critiquing Alm and Cox).

and the poorest 5 percent of people in the world is 165 to 1. The richest people earn in about 48 hours as much as the poorest people earn in a year.¹⁶

Milanovic calculates that “[s]ome 70 percent of global inequality is ‘explained’ by differences in countries’ mean incomes.”¹⁷ In other words, most of the individuals in wealthy countries are much better off than most of the individuals in poor countries. But even within the U.S., one of the world’s wealthiest countries, a dramatic tiering of incomes is prevalent. Many authors have chronicled rising levels of wealth and income inequality in the U.S.¹⁸ Charles Morris has described the fractal nature of these differences in a compelling way, and his account is worth quoting at some length:

Between 1980 and 2005, the top tenth of the population’s share of all taxable income went from 34 percent to 46 percent, an increase of about a third. The changing distribution within the top 10 percent, however, is what’s truly remarkable. The unlucky folks in the 90th to the 95th percentiles actually lost a little ground, while those in the 95th to 99th gained a little.

Overall, however, income shares in the 90th to 99th percentile population were basically flat (24 percent in 1980 and 26 percent in 2005). Almost all the top one-tenth’s share gains, in other words, went to the top 1 percent, or the top “centile,” who doubled their share of national cash

16. Branko Milanovic, *Global Income Inequality: What It Is and Why It Matters?* WORLD ECON. (forthcoming Dec. 2005) (manuscript at 15), <http://www.carnegieendowment.org/files/Milanovicworldecon.pdf>.

17. *Id.*

18. See generally DAVID CAY JOHNSTON, FREE LUNCH: HOW THE WEALTHIEST AMERICANS ENRICH THEMSELVES AT GOVERNMENT EXPENSE (AND STICK YOU WITH THE BILL) (2007); JACOB S. HACKER, THE GREAT RISK SHIFT; THE ASSAULT ON AMERICAN JOBS, FAMILIES, HEALTH CARE, AND RETIREMENT AND HOW YOU CAN FIGHT BACK (2006); ROBERT FRANK, FALLING BEHIND (2007); John Bellamy Foster, *Aspects of Class in the United States: An Introduction*, MONTHLY REV. 1, 2 (July-Aug. 2006) (“Over the years 1950 to 1970, for each additional dollar made by those in the bottom 90 percent of income earners, those in the top 0.01 percent received an additional \$162. In contrast, from 1990 to 2002, for every added dollar made by those in the bottom 90 percent, those in the uppermost 0.01 percent (today around 14,000 households) made an additional \$18,000.”); David Cay Johnston, Op-Ed., *Richest Are Leaving Even the Rich Far Behind*, N.Y. TIMES, June 2, 2005, at 11; Teresa Tritch, Op-Ed., *The Rise of the Super-Rich*, N.Y. TIMES, July 19, 2006, available at http://select.nytimes.com/2006/07/19/opinion/19talkingpoints.html?_r=1. (“[F]rom 2003 to 2004, the latest year for which there is data . . . real average income for the top 1 percent of households - those making more than \$315,000 in 2004 - grew by nearly 17 percent. . . . In all, the top 1 percent of households enjoyed 36 percent of all income gains in 2004, on top of an already stunning 30 percent in 2003.”) Tritch’s work and a larger series in the *Times* focused on the degree to which inequality even within rarefied sectors of the economy grew during the 1990s and 2000s. *Id.* “Income inequality used to be about rich versus poor, but now it’s increasingly a matter of the ultra rich and everyone else.” *Id.*

income from 9 percent to 19 percent.

Even within the top centile, however, the distribution of gains was radically skewed. Nearly 60 percent of it went to the top tenth of 1 percent of the population, and more than a fourth of it to the top one-hundredth of 1 percent of the population. Overall, the top tenth of 1 percent more than tripled their share of cash income to about 9 percent, while the top one-hundredth of 1 percent, or fewer than 15,000 taxpayers, quadrupled their share to 3.6 percent of all taxable income. Among those 15,000, the average tax return reported \$26 million of income in 2005, while the take for the entire group was \$384 billion.¹⁹

Larry Bartels's book, *Unequal Democracy*, graphs these trends over a longer time period (from 1947 to 2005).²⁰ He shows how over those 58 years the 95th percentile did much better than those at lower percentiles.²¹ He then shows how those at the 99.99th percentile did spectacularly better than those at the 99.9th, 99.5th, 99th, and 95th percentiles.²² There is some evidence that even within that top 99.99th percentile, inequality reigned. In 2005, the "Fortunate 400"—the 400 households with the highest earnings in the U.S.—made on average \$213.9 million apiece, and the cutoff for entry into this group was a \$100 million income—about four times the average income of \$26 million prevailing in the top 15,000 returns.²³

Taken as a group, Pogge, Milanovic, Bartels, and Morris paint a picture of a world in which those in the richest countries have far more income than those in poor countries. Moreover, the most fortunate in the richest countries—particularly those in the top centile of the income distribution—are far richer than those around them. Most dramatically, even within that top centile, the richest of the rich (at the 99.99th percentile and "Fortunate 400" levels) are pulling away from even their elite peers. Like fractals, the

19. CHARLES MORRIS, *THE TRILLION DOLLAR MELTDOWN: EASY MONEY, HIGH ROLLERS, AND THE GREAT CREDIT CRASH*, 139-140 (2008); see also EDWARD N. WOLFF, *TOP HEAVY: THE INCREASING INEQUALITY OF WEALTH IN AMERICAN AND WHAT CAN BE DONE ABOUT IT* 36 (2002) ("wealth inequality in the United States is high by international standards.").

20. LARRY M. BARTELS, *UNEQUAL DEMOCRACY: THE POLITICAL ECONOMY OF THE NEW GILDED AGE* 8, 10 (2008), available at <http://press.princeton.edu/chapters/s8664.pdf>.

21. *Id.* at 8.

22. *Id.* at 10.

23. Tom Herman, *There's Rich, and There's the "Fortunate 400,"* WALL ST. J., Mar. 5, 2008, at D1, available at <http://online.wsj.com/article/SB120468366051012473.html> ("[T]he top 400 taxpayers have greatly increased their share of individuals' income since the mid-1990s. . . . The new data actually understate the group of 400's remarkable performance. The income yardstick used by the IRS for its study is known as 'adjusted gross income,' and it doesn't include tax-exempt interest income from state and local government bonds."). For background, see Thomas Piketty & Emmanuel Saez, *Income Inequality in the United States, 1913-1998*, 118 Q.J. ECON. 1 (2003); Thomas Piketty & Emmanuel Saez, *The Evolution of Top Incomes: A Historical and International Perspective*, 96 AM. ECON. REV. 200, 204 (2006).

patterns of distribution repeat, again and again, from the global view to that of the distribution among the most fortunate.

John Chung has characterized today's extraordinary concentrations of wealth as a "death of reference" in our monetary system and its replacement with "a total relativity."²⁴ He notes that "In 2007, the average amount of annual compensation for the top 25 highest paid hedge fund managers was \$892 million."²⁵ Even before the financial crisis, it was hard to believe that any of these individuals made over 17,800 times the economic contribution of, say, a plumber making \$50,000 per year.²⁶ As Brad DeLong has calculated, "not even the richest of the pre-Civil War southern slaveholders disposed of" the property in the hands of today's billionaires.²⁷

Just as the market is preceded by law, money's worth hinges on its ability to value past actions and to exert force over the future.²⁸ Money is legitimate to the extent it is distributed wisely and fairly; money is valuable to the extent it grants purchasing power. Given the high levels of United States and world inequality reached in recent years, the legitimacy of fiat money generally—and the dollar in particular—may be declining.²⁹ If this legitimization crisis continues, its power might also fade. In the meantime, policymakers must continue to refine the many redistributive aspects of health care law and policy that mitigate the impact of wealth and poverty on access to care.³⁰

24. John Chung, *Money as Simulacrum: The Legal Nature and Reality of Money*, 5 HASTINGS BUSINESS LAW JOURNAL 109, 149 (2009).

25. *Id.*, at 151. If the \$892,000,000 per-year hedge fund manager and the \$50,000-a-year plumber were to come to a store at the end of a year of work, and bid for its contents, does it really make sense to give the former 17,839/17,840 of its goods, and the latter 1/17,840 of them? If not, perhaps we should be even more wary of further expansion of the purchasing power of the well-off in the realm of medical personnel and services.

26. Martin Wolf, *Why Britain has to Curb Finance*, FIN. TIMES, May 21, 2009 (describing how many tycoons in the financial sector "now sit on fortunes earned in activities that have led to unprecedented rescues and the worst recession since the 1930s.").

27. J. Bradford DeLong, *Robber Barons*, http://www.j-bradford-delong.net/Econ_Articles/Carnegie/DeLong_Moscow_paper2.html.

28. I use the term "worth" here to try to overcome the classic "value/values" divide between economics and sociology. See DAVID STARK, *THE SENSE OF DISSONANCE: ACCOUNTS OF WORTH IN ECONOMIC LIFE 7* (Princeton U.P., 2009) ("The polysemic character of the term—worth—signals concern with fundamental problems of value while recognizing that all economies have a moral component.").

29. Branko Milanovic, *Two Views on the Cause of the Global Crisis I*, YALE GLOBAL ONLINE, May 4, 2009, available at <http://yaleglobal.yale.edu/display.article?id=12327> ("The real cause of the crisis lies in huge inequalities in income distribution which generated much larger investable funds than could be profitably employed. The political problem of insufficient economic growth of the middle class was then 'solved' by opening the floodgates of the cheap credit.").

30. For a classic treatment of the distinct distributive logic applying to health and medicine, see MICHAEL WALZER, *SPHERES OF JUSTICE: A DEFENSE OF PLURALISM AND EQUALITY* 86 (Basic Books, 1983) ("the distributive logic of the practice of medicine seems

B. Fractal Inequality and Purchasing Power

The practical effect of fractal inequality is clear, but what are the specific implications for health policy? One economist, David Dapice, has made a direct connection between overspending on health care in the U.S. and lack of investment opportunities abroad. Yet the chain of cause and effect between excess buying power on one end of the distribution and deprivation at the other end is not specified to health care in Dapice's model:

US healthcare costs are nearly double that of other developed nations, and are without any attendant benefits: US life expectancy is no greater. . . . In one sense, the US is starving investment in growth by swallowing up so much of the world's savings. With a lower budget deficit, capital flows that are directed to funding US debt might now go toward developing nations. . . .³¹

Others have made this connection in the case of food, and their reflections may have some relevance for health as well. In the book *Stuffed and Starved*, Raj Patel notes the startling incongruity evident in the "simultaneous existence of nearly one billion who are malnourished and nearly one billion who are overweight."³² For Patel, the two groups' disparate ecological footprints explain much of this paradox of excess and deprivation.³³ Jared Diamond summarizes the broader consumption data provocatively:

The estimated one billion people who live in developed countries have a relative per capita consumption rate of 32. Most of the world's other 5.5 billion people constitute the developing world, with relative per capita consumption rates below 32, mostly down toward 1. . . . A real problem for the world is that each of us 300 million Americans consumes as much as 32 Kenyans. With 10 times the population, the United States consumes 320 times more resources than Kenya does.³⁴

The convertibility of food to fuel helps explain the connection between excess in the developed world and deprivation in the developing world. As Lester Brown explains, "almost everything we eat can be converted into

to be this: that care should be proportionate to illness and not to wealth.").

31. David Dapice, *Stopping the Death Spiral: US Health Care Reform Can Help the World*, YALE GLOBAL ONLINE, May 26, 2009, <http://www.yaleglobal.yale.edu/print/5660>.

32. RAJ PATEL, *STUFFED AND STARVED: THE HIDDEN BATTLE FOR THE WORLD FOOD SYSTEM 3* (2007). See also RAJ PATEL, *THE VALUE OF NOTHING: HOW TO RESHAPE MARKET SOCIETY AND REDEFINE DEMOCRACY* (2009).

33. *Id.*

34. Jared Diamond, Op-Ed., *What's Your Consumption Factor*, N.Y. TIMES, Jan. 2, 2008, at A17. See also PETER MENZEL & FAITH D'ALUISIO, *HUNGRY PLANET: WHAT THE WORLD EATS* (2008) (providing images from countries across the globe of the relative access to foodstuffs of households at varying income levels).

automotive fuel. . . as crops that have long sustained us are diverted to provide fuel, we may encounter. . . a battle between the world's 800 million automobile owners, who want to maintain their mobility, and the world's 2 billion poorest people, who simply want to survive."³⁵ The rise in commodity prices and general scarcity of food and fuel in mid-2008 generated renewed interest in Malthusian arguments about the inevitability of resource-based conflicts.³⁶

In the case of medical care, such direct, zero-sum competitions for resources also exist. However, they are more directly counterbalanced by the diffusion of innovations initially funded by the wealthy, which gradually become available to the less well off.³⁷ Deeper problems arise when irreconcilably zero-sum competitions for resources develop.³⁸ For example, if there are only a fixed number of primary care doctors in a given area, the demand of a few wealthy people for "concierge medicine" may reduce the number of hours of care available to others.³⁹ If the budget for pharmaceutical research is limited, and researchers must determine whether to develop a drug for a disease commonly experienced in the developed

35. Lester R. Brown, *Starving the People To Feed the Cars*, WASH. POST, Sep. 10, 2006, at B03. See also Lester R. Brown, *Could Food Shortages Bring Down Civilization*, SCI. AM., May 2009, at 50, available at <http://www.scientificamerican.com/article.cfm?id=civilization-food-shortages> ("As demand for food rises faster than supplies are growing, the resulting food-price inflation puts severe stress on the governments of countries already teetering on the edge of chaos."); see also MICHAEL T. KLARE, *RESOURCE WARS: THE NEW LANDSCAPE OF GLOBAL CONFLICT* 6 (2007) (describing how the rise in commodity prices and general scarcity of food and fuel has generated renewed interest in Malthusian arguments about the inevitability of resource-based conflicts).

36. KLARE, *supra* note 35, at 6 ("the protection of global resource flows is becoming an increasingly prominent feature of American security policy").

37. Frank Pasquale, *Technology, Competition, and Values*, 8 MINN. J. L. SCI. & TECH. 607, 607 (2007) ("Law can advance or retard the distributive effects of innovation and its diffusion in many ways.").

38. HAROLD JAMES, *THE CREATION AND DESTRUCTION OF VALUE: THE GLOBALIZATION CYCLE* 30 (Harvard U.P., 2009) (arguing that the "Western middle class. . . is now extremely alarmed by the prospect that that it might be overtaken by an even larger (and harder working) middle class in emerging market countries, especially because it is contending at the same time with a large and widening gulf between its potential for acquiring wealth and that already achieved by a new global elite.").

39. Troyen A. Brennan, *Luxury Primary Care: Market Innovation or Threat to Access?*, 346 NEW ENG. J. MED. 1165, 1165 (2002); Sandra J. Carnahan, *Law, Medicine, and Wealth: Does Concierge Medicine Promote Health Care Choice, or Is It a Barrier to Access?*, 17 STAN. L. & POL'Y REV. 121, 157 (2006); Frank Pasquale, *The Three Faces of Retainer Care: Crafting a Tailored Regulatory Response*, 7 YALE J. HEALTH POL'Y L. & ETHICS 39, 80 (2007). See also Maggie Mahar, et al, *The Healthcare Crisis – Solved?*, THE CONFERENCE BOARD, Sep.-Oct. 2006, available at http://www.conference-board.org/articles/atb_article.cfm?id=363&pg=2 ("While Toyota can step up production of its best models, doctors cannot manufacture more hours in their day. We need to identify the processes associated with outstanding outcomes and move the entire bell curve of doctors to the right.").

world or a disease commonly experienced in the developing world, the buying power of the former may draw investigators away from the latter. By examining the extent of such dynamics (and countervailing factors) at the national and international level, we can begin to understand some implications of fractal inequality for health law and policy.

III. FRACTAL INEQUALITY AND THE DOMESTIC TIERING OF ACCESS TO CARE

The U.S. health care system exhibits excess and deprivation that reflect larger trends toward fractal inequality.⁴⁰ The deprivation is clearly problematic: over 45 million Americans lack health insurance and the Institute of Medicine estimates that at least 18,000 deaths per year are directly related to un- and under-insurance.⁴¹ Excess can also hurt, for American breakthroughs in medical technology are often accompanied by waste and overtreatment.⁴² Shannon Brownlee's book, *Overtreated*, argues that the U.S. "spends between one fifth and one third of our health care dollars . . . on care that does nothing to improve our health."⁴³ One reviewer notes that "too much medicine—for many patients, much of the time—is doing serious damage to the nation's health:"

Many treatments that have become widely accepted in recent years – including proton pump inhibitors for ulcers, arthroscopic knee surgery for arthritis, hormone replacement therapy for menopause and high-dose chemotherapy for breast cancer – “have ultimately been shown to be unnecessary, ineffective, more dangerous than imagined, or sometimes

40. Alain Enthoven & Richard Kronick, *A Consumer-Choice Health Plan for the 1990s: Universal Health Insurance in a System Designed to Promote Quality and Economy (First of Two Parts)*, 320 NEW ENG. J. MED. 29, 29 (1989).

41. Timothy Jost, *Our Broken Healthcare System and How to Fix It: An Essay on Health Law*, 41 WAKE FOREST L. REV. 537, 537 (2006); INST. OF MED., CARE WITHOUT COVERAGE: TOO LITTLE, TOO LATE 161, 162 (2002), available at <http://www.nap.edu/books/0309083435/html> (reporting the 18,000 deaths).

42. Uwe E. Reinhardt, *The United States: Breakthroughs and Waste*, 17 J. HEALTH POL. POL'Y & L. 637, 638 (1992).

43. Amanda Schaffer, *Where Does It Hurt?*, WASH. POST., Jan. 13, 2008, at BW02. See also Atul Gawande, *The Cost Conundrum*, THE NEW YORKER, June 1, 2009, at 36 (“Two economists working at Dartmouth, Katherine Baicker and Amitabh Chandra, found that the more money Medicare spent per person in a given state the lower that state’s quality ranking tended to be. In fact, the four states with the highest levels of spending—Louisiana, Texas, California, and Florida—were near the bottom of the national rankings on the quality of patient care.”). But see Richard A. Cooper, *More is More and Less is Less: The Case of Mississippi*, 28 HEALTH AFF. WEB EXCLUSIVE w124, w124 (2008) (“[I]t turns out that Mississippi doesn’t spend more on health care. Baicker and Chandra’s metric was Medicare, which is not a proxy for spending overall, a fact that is broadly accepted despite Skinner and colleagues’ strenuous rebuttal.”).

more deadly than the diseases they were intended to treat.”⁴⁴

Yet at the same time as this “excess” is sapping the health of those who can afford it, deprivation haunts the poor and uninsured.⁴⁵ Consider the decline of the cash-strapped Grady Hospital of Atlanta:

A third of the ambulances need to be put out of their misery, said Astria L. Benton, a paramedic supervisor. Every week or so, a vehicle simply gives out while in transit, and Ms. Benton prays that the patient will not die before she can orchestrate a rescue. . . . The orthopedic department has a waiting list for elective procedures that one doctor quantified as “infinity.” Its doctors intermittently instruct other departments to not send them patients.⁴⁶

While individuals across northern Georgia use the hospital, only “Fulton and DeKalb counties . . . and none of their suburban neighbors — make annual appropriations to the hospital’s budget for the care of indigent residents.”⁴⁷ Perhaps the suburban counties’ residents’ anti-tax fervor arises in part from a perceived need to keep the money necessary to pay for the types of unnecessary treatments Brownlee describes.

Admittedly, much of the care offered at the high end of the American health care system is worthwhile. However, increasingly aggressive business strategies of doctors, hospitals, and pharmaceutical companies threaten the delicate balance of cross-subsidization that has historically provided adequate health care to a broad swathe of Americans.⁴⁸ For example, by diverting away the best-insured patients from general hospitals, specialty hospitals threaten to further undermine the already fading patterns of cross-subsidization that have aided un- and underinsured Americans.⁴⁹ A

44. Schaffer, *supra* note 43.

45. See Lawrence E. Singer, *Gloria Jean Ate Catfood Tonight: Justice and the Social Compact for Health Care in America*, 36 *LOY. U. CHI. L. J.* 613, 614 (2005) (“More than forty-three million people lack insurance. For them there are few health care options. ‘Dermabrasion,’ ‘Botox,’ and ‘therapeutic massage’ are not in their vocabulary.”).

46. Shalia Dewan & Kevin Sack, *A Safety-Net Hospital Falls Into Financial Crisis*, *N.Y. TIMES*, Jan. 8, 2008.

47. *Id.* According to the article, “two in 10 Grady inpatients and one in 10 outpatients arrive from” counties that do not contribute in the manner that Fulton and DeKalb do. *Id.*

48. See generally JOINT FTC-DOJ REPORT, IMPROVING HEALTH CARE: A DOSE OF COMPETITION (2006), <http://www.ftc.gov/reports/healthcare/040723healthcarerept.pdf> (accounting the role of cross-subsidization in health care finance); TIMOTHY STOLTZFUS JOST, *HEALTH CARE AT RISK: A CRITIQUE OF THE CONSUMER-DRIVEN MOVEMENT* (2007).

49. Sujit Choudhry, Niteesh K. Choudhry, & Troyen A. Brennan, *Specialty Versus Community Hospitals: What Role For The Law?*, *HEALTH AFF. WEB EXCLUSIVE* W5-361, W5-363 <http://content.healthaffairs.org/cgi/content/abstract/hlthaff.w5.361v1> (“The AHA [American Hospital Association] argues that specialty hospitals erode cross-subsidization by ‘cherry-picking’ relatively well-insured and healthy patients (where profit margins are higher) and by limiting or denying care outright to underinsured, indigent, and less healthy

general hospital will often cross-subsidize vital public services (like emergency departments or uncompensated care) from the margins achieved by its cardiac or orthopedics department. When such profitable departments migrate away from the general hospital, it is not easy to find alternative funding for such services. Specialty hospitals often do not provide the type of community benefits—including emergency rooms, unsponsored care, or medical education—offered by many competing general hospitals. They can more easily avoid serving Medicaid patients, costly Medicare patients, and the uninsured than most general community hospitals can.⁵⁰

Concierge medicine offers another example of market-driven inequality percolating into the health sector. In exchange for a yearly retainer payment, patients can now sign up for concierge practices, which promise to offer them superior levels of service and attention. For example, Dr. Steven Flier and his partners transitioned their practice into Personal Physicians HealthCare in 2000.⁵¹ They cut their number of patients by two-thirds or more, offering a very high level of primary and preventive care to the first three hundred patients willing to pay a \$4000 annual fee.⁵² Patients unable to pay the retainer fee were left to find another physician. A similar dynamic has played out in many other practices where patients are trading enhanced access for cash - a clear example of queue-jumping relative to their previous business practices and the standard of primary care prevalent in the United States.⁵³

Paying higher prices for higher quality services may seem like a cornerstone of free market economics. In an ordinary market, when demand increases, suppliers can enter in response to high prices. Competition among suppliers—and concomitant technological innovation—may eventually drive prices down. Yet medicine is no ordinary market.⁵⁴ Information asymmetries, often urgent and unpredictable demand, high risk decision-making, and general uncertainty cripple market mechanisms in

patients.”).

50. See John K. Iglehart, *The Emergence of Physician-Owned Specialty Hospitals*, 352 *NEW ENG. J. MED.* 78, 83 (2005); see generally Frank Pasquale, *Ending the Specialty Hospital Wars: A Plea for Pilot Programs as Information-Forcing Regulatory Design*, in *OUR FRAGMENTED HEALTH CARE SYSTEM: CAUSES AND SOLUTIONS* (Einer Elhauge, ed., Oxford Univ. Press, forthcoming 2010).

51. Gregory Stoller & Christopher Ferrarone, *Personal Physicians HealthCare: The Patient is Always Right*, 2 (2004), available at <http://www.bc.edu/schools/csom/bcbi/meta-elements/pdf/persphy.pdf>.

52. *Id.* at 7.

53. See *The Three Faces of Retainer Care*, *supra* note 39, at 49-50.

54. Donald R. Cohodes, *Where You Stand Depends on Where You Sit: Musings on the Regulation/Competition Dialogue*, 7 *J. HEALTH POL. POL'Y & L.* 54, 56 (1982) (“Medical care has a number of characteristics that distinguish it from most other products in important ways.”).

health care.⁵⁵ As Donald R. Cohodes has observed, agency problems, third-party payment, and retrospective cost reimbursement “undercut virtually all normal incentives for market efficiency.”⁵⁶

State action erodes the force of market mechanisms in medical care even more dramatically than it does in most other fields. Given the degree of state control over supply (and subvention for demand) in health care, it is difficult even to recognize a “market” for key medical services. As Nobel Laureate Milton Friedman noted long ago,⁵⁷ the supply of doctors is strictly controlled in the United States.⁵⁸ During much of its history, the American Medical Association has worked to limit the number of medical schools and to cap the number of doctors immigrating to the U.S.⁵⁹ Regardless of whether these limits are characterized as self-serving cartelization or as a form of consumer protection, they effectively mean that an increase in the buying power of one group directed toward physician services threatens to divert care away from those unable to match its financial strength.⁶⁰

This dynamic is increasingly important as health care becomes more tiered.⁶¹ Innovations like specialty hospitals, retainer medicine, and

55. *Id.* at 56-58.

56. *Id.* at 58.

57. Milton Friedman, *Medical Licensure*, FREEDOM DAILY, Jan. 1994, at 1, available at <http://www.fff.org/freedom/0194e.asp> (“[L]icensure is the key to the control that the medical profession can exercise over the number of physicians.”). See also DEAN BAKER, *THE CONSERVATIVE NANNY STATE* 19 (Ctr. For Econ. Policy Research, 2006) (“In 1997 Congress tightened the licensing rules for foreign doctors entering the country because of concerns by the American Medical Association and other doctors’ organizations that the inflow of foreign doctors was driving down their salaries. As a result, the number of foreign medical residents allowed to enter the country each year was cut in half.”).

58. See generally Katherine Mangan, *A Growth Spurt for Medical Schools*, CHRON. HIGHER EDUC., Jan. 12, 2007, at A27.

59. See KENNETH M. LUDMERER, *A TIME TO HEAL: AMERICAN MEDICAL EDUCATION FROM THE TURN OF THE CENTURY TO THE ERA OF MANAGED CARE* 214 (1999) (discussing the role of the Liaison Committee on Medical Education, “established in 1942 as a cooperative effort of the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association.”).

60. See Lorne Sossin, *Towards a Two-Tier Constitution? The Poverty of Health Rights*, in *ACCESS TO CARE, ACCESS TO JUSTICE: THE LEGAL DEBATE OVER PRIVATE HEALTH INSURANCE IN CANADA* 161, 175 (Colleen Flood et al. eds., 2005) (discussing the *Chaoulli* decision guaranteeing a constitutional right to purchase private health insurance); see also Colleen Flood et al., *Finding Health Policy ‘Arbitrary’: The Evidence on Waiting, Dying, and Two-Tier Systems*, in *ACCESS TO CARE, ACCESS TO JUSTICE: THE LEGAL DEBATE OVER PRIVATE HEALTH INSURANCE IN CANADA* 296, 305-10 (Colleen Flood, et al., eds., 2005) (using comparative data to demonstrate that a “two-tier system” can lead to a diversion of health care to the wealthy); see also *The Three Faces of Retainer Care*, *supra* note 39, at 148-50 (describing how concierge medical services can lead to the effective abandonment of patients unable or unwilling to pay retainers).

61. See John V. Jacobi, *After Managed Care: Gray Boxes, Tiers And Consumerism*, 47 ST. LOUIS U. L.J. 397, 400-01 (2003). (“[H]ealth insurance offerings are stratifying into tiers in two ways. Employers, who until recently had been paring down the number of plans

cosmetic surgery may provide new options for the wealthy and well-insured. But they also have the potential to disrupt the delicate balance of cross-subsidization that has historically provided some backstop of health care to disadvantaged Americans. For instance, specialty hospitals often do not provide the type of emergency rooms or medical education offered by competing general hospitals.

A. Cosmetic Surgery and Access to Care

On first glance, cosmetic surgery and related procedures may seem like an odd topic of concern for legal medicine. However, this \$15 billion per year industry exemplifies the dangers of tiered access to care.⁶² Even as the U.S. lags in quality indicators in many forms of basic medical care,⁶³ it is excelling at a range of services designed to make people “better than well.”⁶⁴ The new technologies of medical enhancement have primarily appealed to patients with disposable income. Doctors are increasingly looking for a way to opt out of the labyrinthine paperwork of third-party payment systems. Unburdened by third-party payors’ cost-cutting crusade, the cosmetic surgery industry has expanded for many reasons:

There are fewer doctors overall, yet there are more doctors practicing cosmetic plastic surgery. Why? The beauty of cosmetic plastic surgery is that it is elective . . . The surgeon doesn’t have to deal with annoying insurance companies. The surgeon sets the fees. There is no cost

offered to employees, are now sometimes offering a menu of plans, from more expensive (but less restrictive) to less expensive (but more restrictive). In addition, plan sponsors are expanding the use of differentiation among participating providers by charging lower member co-payments for services rendered at less expensive (or otherwise preferred) providers.”).

62. Natasha Singer, *Botox Appointments Faster than for Moles, Study Finds*, N.Y. TIMES, Aug. 29, 2007 (“Patients seeking an appointment with a dermatologist to ask about a potentially cancerous mole have to wait substantially longer than those seeking Botox for wrinkles, a study published online yesterday by *The Journal of the American Academy of Dermatology* said.”); ALEX KUCZYNSKI, BEAUTY JUNKIES: INSIDE OUR \$15 BILLION OBSESSION WITH COSMETIC SURGERY 8 (2006) (describing the rapid growth of the beauty industry).

63. See Catherine Arnst, *The Doc’s In, but It’ll Be a While*, BUS. WEEK, June 22, 2007, available at http://www.businessweek.com/technology/content/jun2007/tc20070621_716260.htm?chan=search. (reporting on a Commonwealth Fund study: “[W]aiting times in the U.S. are often as bad or worse as those in other industrialized nations—despite the fact that the U.S. spends considerably more per capita on health care than any other country. . . . Of the countries surveyed, 81% of patients in New Zealand got a same or next-day appointment for a nonroutine visit, 71% in Britain, 69% in Germany, 66% in Australia, 47% in the U.S., and 36% in Canada.”).

64. See generally, ERIK PARENS, ED., ENHANCING HUMAN TRAITS: ETHICAL AND SOCIAL IMPLICATIONS (1998); CARL ELLIOTT, BETTER THAN WELL: AMERICAN MEDICINE MEETS THE AMERICAN DREAM (2003).

containment. And it's all paid up front, in cash.⁶⁵

Surgery is but one part of a fast-growing “beauty business[es]” that now includes Botox injections (to paralyze certain wrinkle-generating facial muscles) and other medical procedures designed to increase facial volume.⁶⁶

Growth in cosmetic surgery has both static and dynamic effects on the supply of medical services. Because positional competition makes cosmetic surgery ever more necessary as it spreads, it threatens to induce its own demand as it becomes more prevalent.⁶⁷ Standards of appearance are largely set by context: a perfectly acceptable suit for everyday business at the office may be hopelessly inadequate for a job interview.⁶⁸ Similarly, once certain

65. *Id.* As Kuczynski further observes, “Saving lives is noble, but doing so while fending off insurance carriers, monitoring costs, and paying huge insurance premiums is another matter. Cosmetic surgery has become an asylum for physicians defecting from an industry run by managed care in favor of the independence they hope to command in the free market. As a result, its economics have changed, as physicians, finance companies, and credit bureaus collaborate to extend their services to a wider sector of the population.” *Id.* Note that the regulatory options discussed in Part III below may accelerate this “flight to the superficial.” See Natasha Singer, *More Doctors Turning to the Business of Beauty*, N.Y. TIMES, Nov. 30, 2006, at A1; Rebecca Mead, *Proud Flesh: The Cult of Cosmetic Surgery*, THE NEW YORKER, Nov. 13, 2006 (“Kuczynski argues that the soaring incidence of cosmetic surgery—a nearly fivefold increase in the number of cosmetic procedures performed on Americans during the past decade—has been driven by market forces rather than by the measurable health needs of the nation. Surgeons exhausted by the medical-insurance morass are flocking to the field. ‘If you’re a doctor working in this kind of environment, do you want to spend an hour removing a freckle and get paid \$12 in two months by some insurance company? Or do you want to spend fifteen minutes putting Botox into someone’s face and get \$1,000 in cash five minutes later?’ one attendee at a convention of plastic surgeons asks.”).

66. See Jonathan van Meter, *About-Face*, N.Y. MAG., Aug. 3, 2008, at 6, available at <http://nymag.com/news/features/48948/> (describing new trend of facial fillers, and concluding that “[I]t was only a matter of time before a certain segment of the female population would figure out how to have it both ways, even if it means working out two hours a day and then paying someone to volumize their faces, as they say in the dermatology business.”).

67. See Martin Hollis, *Positional Goods*, in PHIL. & PRAC. 97, 97 (A. Phillips Griffiths, ed., 1985) (“A positional good is one which a person values only on condition that not everyone has it. Prizes, for instance, are worthless, if shelled out to all, and much of what we seek has this exclusive character.”). I have attempted to refine this definition in a recent piece on the role of commodification in positional competition; most goods have both positional and intrinsic value, and it is therefore more helpful to speak of the positional aspects of goods. See generally Frank Pasquale, *Technology, Competition, and Values*, 9 MINN. J. L. SCI. & TECH 607 (2007) (discussing positional aspects of goods); RICHARD WILKINSON & KATE PICKETT, *THE SPIRIT LEVEL: WHY GREATER EQUALITY MAKES SOCIETIES STRONGER* (2009) (discussing the negative consequences of positional competition).

68. See Robert H. Frank, *Positional Externalities Cause Large and Preventable Welfare Losses*, 95 AM. ECON. REV. 137, 137 (2005); See generally ROBERT H. FRANK, *CHOOSING THE RIGHT POND: HUMAN BEHAVIOR AND THE QUEST FOR STATUS* (1985); See generally ROBERT H. FRANK, *FALLING BEHIND: HOW INEQUALITY HARMS THE MIDDLE CLASS* (2007); ALAIN DE BOTTON, *STATUS ANXIETY* (2004) (discussing invidious consequences of excessive

“defects”⁶⁹ of appearance like wrinkles become easier to hide, they become less tolerable.⁷⁰ Those who opt out of the cosmetic surgery arms race become ever less attractive relative to the new normal.⁷¹ Entering the arms race of looks is smart for one, but self-defeating collectively. Moreover, just as expanded financing options and lower interest rates have driven up housing prices, so too are new “beauty banks” putting surgery in reach of more Americans.⁷² Alex Kuczynski notes that “[m]ore than two-thirds of Americans who now choose elective cosmetic surgery make less than \$50,000 a year.”⁷³ While that may seem like a frivolous waste of money, it may also be a necessary investment if many others in one’s “looks cohort” are trying to gain the perks due to relative pulchritude. As literature on beauty and workplace competition suggests, those who do not get ahead in the beauty race can be left behind when employers distribute raises.⁷⁴

concern about relative status).

69. NAOMI WOLF, *THE BEAUTY MYTH: HOW IMAGES OF BEAUTY ARE USED AGAINST WOMEN* 231 (1991) (Noting that self-interest and sexism often play a critical role here: “You could see the signs of female aging as diseased, especially if you had a vested interest in making women to see them your way. Or you could see that if a woman is healthy she lives to grow old; as she thrives, she reacts and speaks and shows emotion, and grows into her face. Lines trace her thought and radiate from the corners of her eyes after decades of laughter, closing together like fans as she smiles. You could call the lines a network of ‘serious lesions,’ or you could see that in a precise calligraphy, thought has etched marks of concentration between her brows, and drawn across her forehead the horizontal creases of surprise, delight, compassion, and good talk.”). Though Wolf’s vision may seem too lyrical for a society conditioned by marketing to admire certain stereotyped forms of beauty, there is at least some sign of backlash in Hollywood against the expressionless “Botox mask.” Johann Hari, *Botox Mask is Destroying Hollywood Acting*, *THE INDEP.* (London), Feb 7, 2008, at 40, available at http://www.huffingtonpost.com/johann-hari/botox-is-destroying-holly_b_173086.html (“[T]oday, most actors in most movies have deliberately paralyzed faces, incapable of registering anything.”); see also ALAIN DE BOTTON, *HOW PROUST CAN CHANGE YOUR LIFE* (1997) (discussing rival views of Plato and Kant on beauty).

70. Pasquale, *supra* note 37, at 615 (describing how “badges of caste” have become commodified). See also, SHEILA JEFFREYS, *BEAUTY & MISOGYNY* 172 (2005). (Noting ubiquitous marketing featuring flawless models are one part of this process. “[H]armful beauty practices are inscribed in culture and enforced on women in the west . . . [because] they have been constructed into major industries that make large fortunes for transnational corporations and are a significant force in the global economy. The profitability of these practices to the cosmetics, sex, fashion, advertising and medical industries creates a major obstacle to women’s ability to resist and eliminate them. There is so much money in these industries based on commercializing harmful cultural practices that they constitute a massive political force that requires the continuance of women’s pain.”).

71. Deborah L. Rhode, *The Injustice of Appearance*, 61 *STAN. L. REV.* 1033, 1034 (2009) (“[C]onventional wisdom understates the advantages that attractiveness confers, the costs of its pursuit, and the injustices that result. Many individuals pay a substantial price in time, money, and physical health. Although discrimination based on appearance is by no means our most serious form of bias, its impact is often far more invidious than we suppose.”).

72. KUCZYNSKI, *supra* note 62, at 120, 250.

73. *Id.* at 16.

74. Posting of Frank Pasquale to Madisonian.net, <http://madisonian.net/archives/2006/>

B. Diverting Resources?

Few economists have chronicled the rise of this positional competition in America as insightfully as Robert Frank. Twenty years ago, Frank's groundbreaking *Choosing the Right Pond*⁷⁵ focused on the importance of status in everyday life, eloquently documenting what Sennett and Cobb once termed the hidden injuries of class.⁷⁶ Ten years later, in *The Winner Take All Society*,⁷⁷ Frank questioned the myths of merit so often used to justify high levels of inequality. He showed how technology could exponentially increase returns to superstars who were marginally (or perhaps not at all) better performers than "also-rans." Frank's *Luxury Fever*⁷⁸ chronicled the disastrous effects of "spending cascades" unleashed by the new inequality: as the near-rich strived to emulate the ever-wealthier rich, so the middle class strived to emulate the near-rich, leading to extraordinary levels of indebtedness as incomes stagnated for most middle class households between the early 1970s and today.⁷⁹ Each book developed the theme of positional competition, which demonstrates the wasteful race for goods that are valued to the extent others are denied them.⁸⁰

The diversion of resources in the case of cosmetic surgery not only negatively affects individuals in the U.S., but also has global impacts. To understand it, one must first review some facts about the supply of and demand for medical personnel in the U.S. There is a growing consensus that there is a shortage of doctors in the U.S.: physician salaries in the U.S. are much higher than in comparable countries who are members of the Organization for Economic Cooperation and Development (OECD),⁸¹ and

11/09/decomposing-pulchritudes-perks/ (Nov. 9, 2006); Harbour Fraser Hodder, *Beauty's Bounty*, HARVARD MAGAZINE, Dec. 2006, at <http://harvardmagazine.com/2006/11/the-beauty-bounty.html> ("numerous studies have found that workers of above-average beauty earn 5 to 15 percent more than those with below-average looks. Those differences are of a similar order of magnitude as the premiums we associate with race and gender."); Rhode, *supra* note 71, at 1034.

75. ROBERT H. FRANK, *CHOOSING THE RIGHT POND: HUMAN BEHAVIOR AND THE QUEST FOR STATUS* (1985).

76. RICHARD SENNETT & JONATHAN COBB, *HIDDEN INJURIES OF CLASS* 3-6 (1993).

77. See ROBERT H. FRANK & PHILLIP J. COOK, *THE WINNER-TAKE-ALL SOCIETY: WHY THE FEW AT THE TOP GET SO MUCH MORE THAN THE REST OF US* (1995).

78. See generally ROBERT H. FRANK, *LUXURY FEVER: MONEY AND HAPPINESS IN AN ERA OF EXCESS* (2000).

79. See Elizabeth Warren, *The Middle Class on the Precipice*, HARVARD MAG., Jan.-Feb. 2006 at 28, available at <http://www.harvardmagazine.com/on-line/010682.html>.

80. See Posting of Frank Pasquale to <http://madisonian.net/archives/2006/10/07/a-sketch-of-my-paper-on-ppei/> (Oct. 7, 2006) (noting that the "aspiration to position" is a "zero-sum game: one can only rise in position if others fall.").

81. Timothy Jost, *Our Broken Health Care System and How to Fix It: An Essay on Health Law and Policy*, 41 WAKE FOREST L. REV. 537, 606 (2006). Jost notes that:

Physician incomes are much higher in the United States than they are in other OECD countries. In 1996, for example, the average U.S. physician

even leading trade associations of doctors are calling for an increase in the size of the medical work force. Having long predicted a surplus of physicians, the Association of American Medical Colleges has reversed its position, as reported in the *Chronicle of Higher Education*:

Instead of a glut, experts now fear the nation will face a serious shortage of physicians just when the aging population will need them most. That stunning about-face began in 2002 with an admission by the Association of American Medical Colleges and other groups that the surplus projections by health-care analysts and policy makers may have been a mistake. "It is now evident that those predictions were in error," the association stated last year in a report that called on medical schools to increase their enrollments by 30 percent by 2015, both by expanding existing schools and creating new ones.⁸²

The physician shortage is exacerbated by physician maldistribution.⁸³ While the U.S. has fewer primary care doctors per capita than industrialized countries like France and Germany, many experts say it has a surplus of specialists.⁸⁴ Young doctors' choice of specialization is often driven by economic realities: the median primary care doctor's pay was around \$156,902 per year in 2003, compared to the median specialist's pay of \$264,375.⁸⁵ High medical education debt, rising malpractice premiums, and

income was \$199,000, while the OECD median physician income was \$70,324. The ratio of the average income of U.S. physicians to average employee compensation for the United States as a whole was about 5.5, compared to Germany at 3.4, Canada at 3.2, Switzerland at 2.1, France at 1.9, and the United Kingdom at 1.4.

Id. See also BIANCA K. FROGNER & GERARD F. ANDERSON, MULTINATIONAL COMPARISONS OF HEALTH SYSTEMS DATA 12 (2006), available at http://www.commonwealthfund.org/~media/Files/Publications/Chartbook/2006/Apr/Multinational%20Comparisons%20of%20Health%20Systems%20Data%20%202005/825_Frogner_multinational_comphltsysdata%20pdf.pdf ("The United States spent almost three times the median OECD country on physician services per capita in 2003."); Uwe E. Reinhardt, Peter S. Hussey & Gerard F. Anderson, *Cross-National Comparisons of Health Systems Using OECD Data*, 21 HEALTH AFF. 169, 175 (2002) (discussing United States spending levels on physicians).

82. Mangan, *supra* note 46.

83. Katherine Huang, *Graduate Medical Education: The Federal Government's Opportunity to Shape the Nation's Physician Workforce*, 16 YALE J. ON REG. 175, 176 (1999) (describing how critics of physician workforce increases believe that an increased supply will merely increase the number of specialists and exacerbate existing problems of access and cost).

84. DEBORAH A. SULLIVAN, *COSMETIC SURGERY: THE CUTTING EDGE OF COMMERCIAL MEDICINE IN AMERICA* 70-71 (2001). Sullivan notes that: "In 1996 only 11 percent of active medical doctors reported a general or family practice and only 5 percent reported being general surgeons. The rest work[ed] in more specialized areas, none of which account[ed] for more than 6 percent of medical doctors, except for internal medicine (17 percent) and pediatrics (7 percent). *Id.*

85. Atul Gawande, *Piecework: Medicine's Money Problem*, THE NEW YORKER, Apr. 4, 2005, at 47 ("In 2003, the median income for primary-care physicians was \$156,902. For

the rising salaries of well-educated peers in banking and finance can make the choice between specialization and primary care not much of a choice at all.⁸⁶

Even before the rise of cosmetic surgery, specialties like dermatology were particularly favored by aspiring doctors because of the relative ease of the practice and the wealthy clientele they can attract.⁸⁷ As the profit potential of cosmetic surgery became clear, an economic logic similar to that behind retainer care began to unfold. As the *New York Times* has reported:

Five years ago, cosmetic medicine was primarily the domain of plastic surgeons, facial surgeons and dermatologists — medical school graduates who undergo several years of training in facial skin and its underlying anatomy. But now, obstetricians, family practitioners, and emergency room physicians are gravitating to the beauty business, lured by lucrative cosmetic treatments that require same-day payments because they are not covered by insurance and by a medical practice without bothersome midnight emergency calls.⁸⁸

The new trend toward doctor-courtiers has raised difficult issues for licensing boards. Though “all doctors with state medical licenses are allowed to administer all kinds of treatments . . . doctors have not commonly set up shop in fields far outside their expertise.”⁸⁹ Today, business opportunities in cosmetic fields are changing that custom.⁹⁰ The

general surgeons . . . it was \$264,375 . . .”).

86. See Louis Uchitelle, *Lure of Great Wealth Affects Career Choices*, N.Y. TIMES, Nov. 27, 2006, at 44, available at <http://www.nytimes.com/2006/11/27/business/27richer.html?ex=1184731200&en=3df43ed89796adce&ei+5070> (“A decade into the practice of medicine, still striving to become “a well regarded physician-scientist,” Robert H. Glassman concluded that he was not making enough money. So he answered an ad in the *New England Journal of Medicine* from a business consulting firm hiring doctors. And today, after moving on to Wall Street as an adviser on medical investments, he is a multimillionaire.”); see also generally ROBERT H. FRANK, *FALLING BEHIND: HOW INEQUALITY HARMS THE MIDDLE CLASS* 6-14, 43-60 (2007) (describing the competitive pressure of the “rich” on the “near-rich” to earn more).

87. Posting of Frank Pasquale to CONCURRING OPINIONS, http://www.concurringopinions.com/archives/2008/03/understanding_t.html (Mar. 19, 2008) (“Understanding the Flight to Cosmetic Surgery”) (citing Natasha Singer, *For Top Medical Students, an Attractive Field*, N.Y. TIMES, Mar. 19, 2008 at A1, available at <http://www.nytimes.com/2008/03/19/fashion/19beauty.html?R=1&scp=1&sq=dermatology&st=nyt>).

88. Natasha Singer, *For Top Medical Students, an Attractive Field*, N.Y. TIMES, Mar. 19, 2008 at A1, <http://www.nytimes.com/2008/03/19/fashion/19beauty.html?R=1&scp=1&sq=dermatology&st=nyt>.

89. *Id.* at A1; See also Editorial, *When the Joneses Can't Keep Up*, N.Y. TIMES, Dec. 1, 2006, at A30 (describing the trend of the wealthy to continue seeking additional wealth).

90. See SULLIVAN, *supra* note 84, at 102-06 (chronicling the intraprofessional conflicts that initially deterred entry into the plastic surgery field). However, a truce has gradually emerged among the leading players that has essentially permitted a wide swathe of

president of the American Board of Medical Specialties criticizes this development, but one can expect it to accelerate as the demand for favored appearance grows.⁹¹ While restrictions on enrollment in medical schools may make it difficult to break into highly competitive dermatology or cosmetic surgery residencies, once one is a doctor, little limits one's opportunities to do lucrative cosmetic work.⁹²

As with concierge care, the importance of this trend is particularly marked in the context of current debate over the size and distribution of the medical workforce in the U.S. America imports more and more medical personnel from less-developed countries.⁹³ Though the distributive effects of medical tourism for cosmetic surgery are hotly contested,⁹⁴ all parties can likely agree it is unseemly for Americans demanding cosmetic procedures abroad to create conditions that effectively divert doctors in poor regions from addressing basic, local medical problems. When "resources are increasingly allocated in response to profit opportunities rather than medical need,"⁹⁵ those demanding cosmetic surgery merely speed up a positional

physicians to enter the market. *Id.*

91. See generally David Von Drehle, *Looking Good*, WASH. POST, Nov. 12, 2006, at W14 (describing trends in the obsession with physical appearances).

92. See KUCZYNSKI, *supra* note 62, at 98. Kuczynski notes that "anyone with a medical degree can hang a shingle on the door that says he or she practices cosmetic plastic surgery. . . . And that's where the chilling economic beauty of cosmetic plastic surgery lies. Because no insurance companies are involved in paying the bills, there is no approving body involved in the transaction to demand credentials and certification—except the consumer, who is probably a little scared, a little anxious, and a little predisposed to believe that only good things will happen to them." *Id.*

93. Laurie Garrett, *The Challenge of Global Health*, 86 FOREIGN AFFAIRS 14, 15 (2007) ("[T]he world is now short well over four million health-care workers As the populations of the developed countries are aging and coming to require ever more medical attention, they are sucking away local health talent from developing countries. Already, one out of five practicing physicians in the United States is foreign-trained, and a study recently published in *JAMA: The Journal of the American Medical Association* estimated that if current trends continue, by 2020 the United States could face a shortage of up to 800,000 nurses and 200,000 doctors. Unless it and other wealthy nations radically increase salaries and domestic training programs for physicians and nurses, it is likely that within 15 years the majority of workers staffing their hospitals will have been born and trained in poor and middle-income countries. As such workers flood to the West, the developing world will grow even more desperate.").

94. See Posting of Frank Pasquale to Concurring Opinions, http://www.concurringopinions.com/archives/2008/02/dental_vacation.html (Feb. 8, 2008) (discussing the positive and negative effects of dental medical tourism on developing countries' economies); See also Posting of Frank Pasquale to Concurring Opinions, http://www.concurringopinions.com/archives/2007/10/medical_tourism.html (Oct. 30, 2007) (discussing how American demand for discretionary procedures can affect the health systems of other countries).

95. Robert Kuttner, *Market-Based Failure – A Second Opinion on U.S. Health Care Costs* 358 NEW ENG. J. MED. 549, 550 (2008); Posting of Frank Pasquale to Concurring Opinions, http://www.concurringopinions.com/archives/2008/01/excess_deprivat.html (Jan. 19, 2008).

treadmill of appearance-enhancement while effectively diverting care from the poor.

This diversion of care means that even superficially innocuous demand for medical care can contribute to tragic consequences. . . Considered in isolation, flawless teeth may be a harmless objective. However, once contextualized as part of a larger market for scarce dental services, they are exposed as promoting an important reallocation of societal resources. Tempted by high incomes from cosmetic procedures, dentists are lured away from meeting basic biomedical needs (such as the alleviation of suffering) to serving artificial desires driven by competition and marketing. This growing industry promotes the commoditization of appearance by marketing and creating ever more unattainable standards.

Consider, for instance, recent controversies over the Medicaid reimbursement rates for dental care. After a Maryland child died from an abscessed tooth,⁹⁶ Congress investigated why his mother had such a difficult time finding a dentist willing to treat him. As Harvard tax professor Anne Alstott observed, “[i]n congressional testimony, one Maryland dentist reported that his staff called 748 dentists listed as Medicaid providers and found that only 23% would take new Medicaid patients.”⁹⁷ Across the nation, similar shortages have been reported.⁹⁸ Alstott further notes that “[i]n 1999, Maryland’s Medicaid payments for common dental procedures ranged from 37% to 73% of the market rate; a 2000 state-by-state report by the Government Accountability Office documents that such below-market rates are the norm.”⁹⁹ She therefore argues that states need to “pay dentists who fix poor people’s teeth the same rate they get for taking care of anyone else.”¹⁰⁰

More consistent and just reimbursement practices are a step toward solving access problems. But the distribution of dentist incomes has become bimodal, with higher income accruing to those concentrating on cosmetic

96. Mary Otto, *For Want of a Dentist: Pr. George’s Boy Dies After Bacteria From Tooth Spread to Brain*, WASH. POST, Feb. 28, 2007, at B01.

97. Anne Alstott, *A Deadly Denial: When Medicaid Underpays Dentists, Poor Kids Pay the Price*, DALLAS MORNING NEWS, Jun. 24, 2007, available at http://www.dallasnews.com/sharedcontent/dws/dn/opinion/points/stories/DN-alstott_24edi.ART.State.Edition1.431f494.html.

98. Alex Berenson, *Boom Times for Dentists, But Not for Americans’ Teeth*, N.Y. TIMES, Oct. 11, 2007, at A1 (“[M]any poor and lower-middle-class families do not receive adequate care, in part because most dentists want customers who can pay cash or have private insurance, and they do not accept Medicaid patients. As a result, publicly supported dental clinics have months-long waiting lists even for people who need major surgery for decayed teeth. . . . Meanwhile, the American Dental Association does not support opening new dental schools or otherwise increasing the number of dentists. The association says it sees no nationwide shortage of dentists.”).

99. Alstott, *supra* note 97.

100. *Id.*

procedures.¹⁰¹ More dentists are serving this higher-end market, leaving the rest behind. If wealthy persons pay dentists thousands of dollars for removing flecks from their teeth, these dentists may not need to work the rest of the day—whatever the Medicaid reimbursement rate is.¹⁰² As the number of millionaires skyrockets (there were over nine million in the US in 2007), this dynamic intensifies.¹⁰³ The luxury can even turn into a necessity, as those who cannot pay for some forms of cosmetic dentistry are efficiently identified as belonging to the lower classes of society.¹⁰⁴

Alstott suggests that there is a set market price for dental procedures, which government must meet. However, the price of services depends on the buying power of those in the market for dental care and dentists' income targets.¹⁰⁵ Those with means may endlessly win a bidding war against those reliant on government payments—even if they demand relatively trivial procedures compared with the desperate needs of the poor. As inequality increases, the expected value of a career serving the higher economic class may appear much higher than one concerned with serving the poor and middle classes.

These dilemmas evidence a nexus between commodification and inequality. To the extent the time of medical professionals is allocated according to professional or medical norms, the more grotesque features of pure market allocation may be resisted. Conversely, to the extent medical

101. FRANK & COOK, *supra* note 77, at 89, 96-97 (discussing bimodal distribution of dentist incomes).

102. June Thomas, *The American Way of Dentistry: Healthy Teeth for All*, SLATE, Oct. 4, 2009, at <http://www.slate.com/id/2229637> (“[L]ow fees and bothersome paperwork aren’t the only reasons dentists avoid Medicaid patients. Letting people with bad teeth, often from lower socioeconomic backgrounds, into their waiting rooms risks upsetting dentists’ full-fee patients. But under the current market conditions (undersupply of dentists, high demand for services), it seems unlikely that anything short of a massive influx of funds into the Medicaid system will cause a change of heart.”). Thomas also documents “dentists’ growing inclination to work fewer hours.” June Thomas, *The American Way of Dentistry: The Disappearing Dentist*, SLATE, Sept. 28, 2009, at <http://www.slate.com/id/2229631>.

103. See Robert Frank, *Why Richistan? Why Now?*, <http://blogs.wsj.com/wealth/2007/06/05/why-richistan-why-now/> (June 5, 2007, 12:32 EST) (chronicling the rise of millionaire households and communities).

104. See posting of Frank Pasquale, to CONCURRING OPINIONS, http://www.concurringopinions.com/archives/2007/03/the_death_spira.html (Mar. 26, 2007, 23:12 EST) (discussing a self-reinforcing cycle of poverty and lack of opportunity for health benefits; as individuals become sicker, they become less employable; as they become less employable, they are less able to afford health care; as they are less able to afford health care, they become sicker).

105. Thomas, *supra* note 102 (“dental students get their training in clinics run—and paid for—by the universities. . . . Prestigious universities have been especially keen to divert resources away from dental education to programs that attract rather than bleed funds. . . . The shortage is compounded by dentists’ growing inclination to work fewer hours. In 2006, 12.1 percent of the nation’s private-practitioner dentists worked fewer than 30 hours per week.”).

professionals' time is frankly commodified and distributed according to ability-to-pay, one's rank in the distribution of income becomes increasingly important to health status.¹⁰⁶ The rationing power of money is ubiquitous.

IV. FRACTAL INEQUALITY'S INTERNATIONAL IMPACT

One solution to access problems in the U.S. is the importation of physician services from abroad. Economist Dean Baker has argued for freer trade in services, so that foreign doctors can immigrate to the U.S. and offer lower priced care.¹⁰⁷ Other scholars have observed that rising health costs in the U.S. may lead Americans to travel abroad for medical care.¹⁰⁸ While each proposal would probably lead to savings for many U.S. patients,¹⁰⁹ they could have drastic consequences for less developed countries. Given global patterns of fractal inequality, wealthy Americans' diversion of medical personnel from the care of the lower and middle classes in this country can, in turn, lead to the diversion of medical personnel away from the needy in less developed countries. Only a stringent regulatory regime could reliably assure that gains from trade ultimately lead to better care for all.

106. See RICHARD WILKINSON, *MIND THE GAP: HIERARCHIES, HEALTH, AND HUMAN EVOLUTION* 19 (2001) ("Inequality kills. Both rich and poor die younger in countries with the greatest inequalities in income. Countries such as the United States with big gaps between rich and poor have higher death rates than those with smaller gaps such as Sweden and Japan."). Wilkinson explains how inequality can lead to a "chronic state of anxiety," and then explores the "main biological process through which chronic anxiety leads to ill-health." *Id.* at 37.

107. DEAN BAKER, *THE CONSERVATIVE NANNY STATE* 14 (2006) (demonstrating that "protectionist barriers that keep out foreign professionals are actually quite extensive"). Baker argues that "Doctors in the United States earn an average of more than \$180,000 a year. Their counterparts in Europe earn less than \$80,000 a year. Doctors in the developing world earn considerably less. If enough doctors can be brought in from the developing world to bring doctors' pay down to the European level, the savings to consumers would be \$80 billion a year, about \$700 per family per year." *Id.* at 21.

108. Michael Klaus, *Outsourcing Vital Operations: What If U.S. Health Care Costs Drive Patients Overseas for Surgery?*, 9 QUINNIPIAC HEALTH L.J. 219, 221-22 (2006); Nicolas P. Terry, *Under-Regulated Healthcare Phenomena in a Flat World: Medical Tourism and Outsourcing*, 29 W. NEW ENG. L. REV. 421, 421-27 (2007).

109. Dean Baker, *Malpractice*, BOSTON REVIEW May/June 2009, at 31, available at <http://bostonreview.net/BR34.3/baker.php> ("The health care sector can be opened to global competition in three obvious ways: increasing opportunities for foreign-born medical personnel to work in the United States; facilitating 'medical tourism,' so that Americans can more easily have major medical procedures performed in other countries; and allowing Medicare beneficiaries to buy into the lower-cost health care systems of other wealthy countries. Each of these offers enormous opportunities for savings in the health care sector and benefits for the economy."). *But see* Arnold Milstein & Mark Smith, *Will the Surgical World Become Flat?: Americans' Seeking Cheaper Surgical Procedures Abroad Will Provide Only Modest Relief from our Spreading Affordability Problem*, 26 HEALTH AFF. 137, 141 (2007).

A. International Service Flows

Rising health care costs have led many Americans to look abroad for medical treatments. For example, as the cost of ordinary dental care rises,¹¹⁰ “dental vacations” have become part of a larger trend toward medical tourism.¹¹¹ Globalization and international trade in services raise many important questions for policymakers.¹¹²

According to some scholars of medical tourism, spending by the developed world can stimulate the growth of health infrastructure in the developing world.¹¹³ Yet medical tourism also threatens to push the diversionary effect of inequality to new levels.¹¹⁴ For example, the

110. June Thomas, *The Oral Cost Spiral*, SLATE, Sept. 29, 2009, at <http://www.slate.com/id/2229632> (charting dental price index that has risen at nearly twice the rate as the consumer price index over the past twenty years).

111. Camille Sweeney, *More Fun Than Root Canals? It's the Dental Vacation*, N.Y. TIMES, Feb. 7, 2008, at G1. (“Roughly half a million Americans sought medical care abroad in 2006, of which 40 percent were dental tourists, according to the National Coalition on Health Care, an alliance of more than 70 organizations. That’s up from an estimated 150,000 in 2004, said Renee-Marie Stephano, the chief operating officer for the Medical Tourism Association, a nonprofit organization that researches global health care.”).

112. Nathan Cortez, *Patients without Borders: The Emerging Global Market for Patients and the Evolution of Modern Health Care*, 83 IND. L.J. 71, 131 (2008). (“[M]edical tourism foreshadows the diverse set of issues we will have to confront as health care continues to globalize. How will globalization affect health care costs, quality, and access? Where does the free market fail? When is government regulation futile? How do governments retain the jurisdiction to respond to important legal and ethical questions? How can multilateralism facilitate trade without eviscerating local authorities’ jurisdiction? How do patients, companies, and policymakers mitigate the risks. . . .?”); See also Philip Mirrer-Singer, *Medical Malpractice Overseas: The Legal Uncertainty Surrounding Medical Tourism*, 70 LAW & CONTEMP. PROBS. 211, 212 (2007).

113. MILICA Z. BOOKMAN AND KARLA R. BOOKMAN, *MEDICAL TOURISM IN DEVELOPING COUNTRIES* 177-178 (Palgrave Press, 2007) (“Medical tourism . . . can improve and expand public health care. . . . The entire country benefits from highly skilled doctors who stay in their countries to partake in the growing medical tourism industry.”). But see Debora Lipson, quoted in ABC Radio National Background Briefing on Medical Tourism, Feb. 20, 2005, at <http://www.abc.net.au/rn/talks/bbing/stories/s1308505.htm> (“There is no question that there is a tremendous amount of commercial interest driving this trend, rather than health care interests that are interested in providing greater access and equity and financing to people across all income levels. . . . There are great claims made about how the economic benefits, even if they are at least serving the rich, will trickle down to the poor, or that for example, government health care programs will be able to better target the existing resources that they do have, to the poor and the needy. Quite frankly, I haven’t seen that happen anywhere. It’s just not the case that those profits are tapped and redirected to health services for the poor, it just does not happen.”).

114. Interview by David Williams with Milica Bookman, Author of *MEDICAL TOURISM IN DEVELOPING COUNTRIES* (Sept. 21, 2007), <http://www.worldhealthcareblog.org/2007/09/21/interview-with-milica-bookman-author-of-medical-tourism-in-developing-countries-transcript/> (“[T]here is an] effect of decreasing resources for the poor population . . . because hospitals and doctors and everybody involved in the medical field is going to want to go into the more lucrative medicine[;] namely medicine for . . . cash-paying foreigners. The government might also experience distortion of its priorities because [of the prospect of]

government of South Korea aggressively promoted cosmetic surgery services so it could become a center of excellence in that field, drawing patients from across Asia.¹¹⁵ Other doctors complained that their own fields lacked applicants because of the push.¹¹⁶ Additionally, in poorer countries like Malaysia, scholars have observed the “emergence of a dual medical structure” whereby “private hospitals have about 20% of the overall bed capacity in the country but . . . hire 54% of the doctors,” thus producing a “crowding out effect.”¹¹⁷

When Americans are not traveling abroad to demand the services of less developed countries’ doctors, they and other citizens of rich nations are often inducing those doctors to emigrate to the developed world.¹¹⁸ For example, extreme wealth disparities mean that many Filipino physicians make more in the U.S. as nurses than they would in their home country working as doctors.¹¹⁹ The United States currently imports a great number

bringing in . . . foreign currency.”).

115. Blaine Harden, *Assembly Required – In Seoul’s ‘Makeover Town,’ Surgeons Struggle To Keep Up With Demand for Faces as Seen on TV*, WASH. POST., Sept. 30, 2007, at A20 (“[A]ccording to the Ministry of Health and Welfare, the number of plastic surgeons [in South Korea] jumped 45 percent between 2000 and 2005, from 926 to 1,344.”).

116. *Id.* “Medical school officials say high pay is luring more and more young doctors into plastic surgery. ‘It is quite amazing how many residents are abandoning specialties like internal medicine and pathology to jump on the plastic surgeon bandwagon. . . .’ [said one doctor].” *Id.*

117. Bookman interview with Williams, *supra* note 114; BOOKMAN AND BOOKMAN, *supra* note 113, at 177 (“The dual medical system exists not just between rich and poor patients, but also between urban and rural regions.”).

118. Laurie Garrett, *The Challenge of Global Health*, 86 FOREIGN AFF., 14, 15 (2007) (“[T]he fact that the world is now short well over four million health-care workers As the populations of the developed countries are aging and coming to require ever more medical attention, they are sucking away local health talent from developing countries. Already, one out of five practicing physicians in the United States is foreign-trained, and a study recently published in *JAMA: The Journal of the American Medical Association* estimated that if current trends continue, by 2020 the United States could face a shortage of up to 800,000 nurses and 200,000 doctors. Unless it and other wealthy nations radically increase salaries and domestic training programs for physicians and nurses, it is likely that within 15 years the majority of workers staffing their hospitals will have been born and trained in poor and middle-income countries. As such workers flood to the West, the developing world will grow even more desperate.”).

119. Celia Dugger, *U.S. Plan to Lure Nurses May Hurt Poor Nations*, N.Y. TIMES, May 24, 2006, at A1. *See also* Garrett, *supra* note 118, at 28 (“Data from international migration-tracking organizations show that health professionals from poor countries worldwide are increasingly abandoning their homes and their professions to take menial jobs in wealthy countries. Morale is low all over the developing world, where doctors and nurses have the knowledge to save lives but lack the tools. Where AIDS and drug-resistant TB now burn through populations like forest fires, health-care workers say that the absence of medicines and other supplies leaves them feeling more like hospice and mortuary workers than healers.”); Celia Dugger, *Educated Workers Leaving Poor Nations, Survey Finds*, N.Y. TIMES, Oct. 24, 2005, at A5 (“[S]ome experts worry that the flight of skilled, educated workers from poor countries could be crippling in particular professions, especially in health

of physicians from foreign countries.¹²⁰ Current regulation is not adequately addressing the brain drain that results from this labor migration.¹²¹

As of 2002, about 23%, or roughly 180,000 United States physicians, were graduates of international medical schools.¹²² Not all of them come from developing countries, and even those who do may never have intended to practice in the country in which they were educated. Nevertheless, American efforts to draw international medical graduates (IMGs) have created serious concerns in many countries.¹²³ For example, Liberia has lost 43% of its physician workforce to the United States and Canada.¹²⁴ Strikingly, the United Nations estimates that the "brain drain" costs Africa \$4 billion a year (nearly one-third of the official development aid that Africa receives).¹²⁵

Global justice may require some reversal of these trends, but limits on IMGs could inflict further access problems on the poorest segments of the U.S. population. Many rural and urban areas in the U.S. face serious physician shortages. They draw many of the foreign physicians who

and education."). *But see* Michele R. Pistone, *The Devil in the Details: How Specific Should Catholic Social Thought Be?*, VILL. UNIV. SCH. L. WORKING PAPER, available at <http://law.bepress.com/cgi/viewcontent.cgi?article=1028&context=villanovalwps> (questioning the negative effects of emigration of medical professionals, and asking "What if new developments in technology and communications enabled highly skilled immigrants to contribute to the growth of their home countries even while abroad? . . . Does the money sent as remittances by migrants to their family and friends who remain back home stimulate the national economic growth of the home countries in addition to increasing the standard of living of the individual recipients?").

120. Amy Hagopian, et al., *The Migration of Physicians from Sub-Saharan Africa to the United States of America: Measures of the African Brain Drain*, 2:17 HUMAN RESOURCES HEALTH 1 (2004), available at <http://www.human-resources-health.com/content/pdf/1478-4491-2-17.pdf>.

121. The Lancet, *Medical Migration and Inequity of Health Care*, 356 THE LANCET 177 (2000).

122. *Id.* at 4. This amounts to roughly 180,000 American physicians.

123. For example, while Ghana's population faces many medical challenges, 65% of the country's medical graduates immigrate to the U.S. within ten years of graduating from Ghanaian medical schools. *Ghana's Health Care Sector is in Crisis*, MODERN GHANA NEWS, Apr. 29, 2003, available at <http://www.modernghana.com/news/34096/1/ghanas-health-sector-is-in-crisis-gma.html> ("The Ghana Medical Association (GMA) on Sunday said the nation's health sector was in crisis [in part because of the] . . . wholesale recruitment of health professionals by agencies and Ghanaians living abroad for commission." The GMA is reported to believe that "unless the government took concrete actions and pragmatic measures to meet the situation and rectify the imbalances in the system the country would soon experience a disaster in the sector."). *See also* Suwit Wibulpolprasert, Cha-aim Pachanee, Siriwan Piayarangsarit, & Pintusorn Hempisut, *International Service Trade and its Implications for Human Resources for Health: A Case Study of Thailand*, 2 HUMAN RESOURCES FOR HEALTH 10, 17 (2004), available at <http://www.human-resources-health.com/content/2/1/10>.

124. Hagopian et al., *supra* note 120, at 5.

125. *Id.* at 2-4.

emigrate to the US. The émigrés' crucial role has led states to request special visa exceptions to retain foreign physicians in underserved areas and many safety net hospitals employ IMG residents.¹²⁶ The entry of IMGs into American graduate medical education thus presents a health policy dilemma.

Legal and political decisions crucially influence the composition of the U.S. physician workforce. In 1986, Congress authorized the COGME "to provide an ongoing assessment of physician workforce trends and to recommend appropriate Federal and private sector policy efforts to address physician workforce concerns."¹²⁷ Graduate medical education, which is largely funded by Medicare, only has a finite number of spots.¹²⁸ There are more residency spots available than there are U.S. medical graduates (USMGs); international medical graduates fill most of the remaining spots.¹²⁹ COGME offers advice to Congress and the Department of Health and Human Services on "the status of foreign medical school graduates in the United States."¹³⁰ In the Balanced Budget Act of 1997, Congress reduced Medicare funding for the residency positions for IMGs in inner-city hospitals, largely in order to reduce Medicare spending, and also to avoid physician-induced demand for physician services.¹³¹

This approach may have reduced the U.S. demand for IMGs, but at the expense of many of the most vulnerable US citizens. A more targeted approach might involve taxing the earnings of immigrant physicians to pay for a health care infrastructure that could better support their services in their home countries. Many IMGs leave their home country not merely to earn more abroad, but also to practice skills with technology and experts that are in short supply in their home countries. Taxation could smooth a transition to a future scenario where U.S. hospitals both educate more physicians and help finance more equitable health infrastructure internationally.

126. Hagopian et al., *supra* note 120, at 2. It is presently unclear whether foreign physicians tend to stay as safety-net practices for poor and underinsured Americans; however, they appear to be an important "stopgap" in many regions. *Id.*

127. David A. Kindig, *Federal Regulation and Market Forces in Physician Workforce Management*, in THE U.S. HEALTH WORKFORCE: POWER, POLITICS, AND POLICY 48 (Marian Osterweis et al. eds., 1996).

128. John K. Iglehart, *The Quandary Over Graduates of Foreign Medical Schools in the United States*, 334 HEALTH POL'Y REP. 1679, 1679 (1996).

129. Hagopian et al., *supra* note 120, at 2.

130. Hagopian et al., *supra* note 120, at 2, 49 (noting that COGME's role is only advisory; despite its 1992 recommendations to reduce the number of residency positions to 110% of USMG's, the number stood at 140% in 1994."); Kindig, *supra* note 119, at 47-48, 51.

131. Hagopian et al., *supra* note 120, at 9.

B. International Organ Markets

Many scholars have called for the development of markets for transplantable organs. For example, Eugene Volokh argues that a “right of medical self-defense . . . makes [an] organ sales ban presumptively improper and unconstitutional when the organs are needed to protect people’s lives.”¹³² But he concedes that “some concerns about organ markets may justify regulation of such markets.”¹³³ Although “allowing payment for organs [might] let rich patients buy up all available organs, and leave poorer patients without the chance of a transplant,”¹³⁴ he believes that a price ceiling could address these issues:

The “rich outbidding others” concern only arises if the rich or their insurers pay so much that other health care funders can’t keep up, and the other funders’ payments don’t suffice to make enough organs available for all patients. Even if we think this is likely—if we think the rich would pay \$200,000 per kidney, other health care funders wouldn’t pay more than \$100,000, and this payment wouldn’t yield enough organs for everyone—this . . . supports capping payments at the level all funders would pay, which is likely the rather high amount at which the funders will still be saving money by paying for an organ to be transplanted rather than for long-term care in lieu of a transplant.¹³⁵

As I have noted in the context of ventilator allocations during pandemics,¹³⁶ this type of subsidy can be a perfectly reasonable approach to the distributive issues involved within a given country. But while Volokh wants to analogize the decision to donate an organ to the decision to take on difficult, dirty, or dangerous work,¹³⁷ international fractal inequality creates some important differences between these choices.¹³⁸

132. Eugene Volokh, *Medical Self-Defense, Prohibited Experimental Therapies, and Payment for Organs*, 120 HARV. L. REV. 1813, 1816 (2007).

133. *Id.* (Volokh calls the right to purchase kidneys a legal imperative, other commentators have focused on making the moral case for commodification of organs.). See Stephen J. Dubner & Steven D. Levitt, *Flesh Trade*, N.Y. TIMES, July 9, 2006, § 6 (Magazine), at 20 available at http://www.nytimes.com/2006/07/09/magazine/09wwln_freak.html.

134. *Id.* at 1839.

135. *Id.* at 1840.

136. Posting of Frank Pasquale to Concurring Opinions, http://concurringopinions.com/archives/2006/03/dedicated_venti.html (Mar. 13, 2006).

137. Posting of Eugene Volokh to The Volokh Conspiracy, http://volokh.com/archives/archive_2006_11_12-2006_11_18.shtml (Nov. 13, 2006).

138. See generally DEEN K. CHATTERJEE, *THE ETHICS OF ASSISTANCE: MORALITY AND THE DISTANT NEEDY* (2004); PETER K. UNGER, *LIVING HIGH AND LETTING DIE: OUR ILLUSION OF INNOCENCE* (1996); Peter Singer, *Why You Should Give Away Most of Your Money*, 76 MED. ECON. 275 (1999), available at <http://medicaleconomics.modernmedicine.com/memag/PracticeManagement/ArticleStandard/article/detail/124725> (arguing that morally, all

Job safety regulations and minimum wage laws within the U.S. help discourage workers from making truly bad bargains as they choose occupations. The reasonableness of the options discussed by Volokh is premised on the idea that a would-be organ seller has a choice between a dangerous job that allows him to save “\$5000 per year” or selling a kidney for tens of thousands of dollars.¹³⁹ As this news report shows, the choice can be much more grim in less developed regions:

“We do this because of our poverty,” said [one paid organ donor from] a village in eastern Pakistan. A kidney nets the donor \$2,500, sometimes less than half that amount, while recipients — some 2,000 a year — pay \$6,000 to \$12,000, compared with \$70,000 in neighboring China. Critics blame an economic system that enmeshes farmers in chronic debt, forcing them to sell their kidneys, and say the trade should be banned. The government says it is taking action. In the United States, donating kidneys for money is banned. But the Belgium-based International Society of Nephrology has suggested expanding the pool of kidney donors by legalizing payment of about \$40,000 to donors.¹⁴⁰

To safeguard against abuse, those in desperate circumstances should be given some fair compensation for risking their lives on behalf of a person capable of paying them for an organ. If an organ market develops further, the direct tradeoff of risk for cash makes it an ideal place to transmute anti-commodification norms into the egalitarian commitments that are their ultimate normative rationale.¹⁴¹ Price floors can help do that, but must be keyed to the real risk involved. Organ markets should not permit some individuals to take advantage of the extreme deprivation of others.¹⁴²

V. TAXING FRACTAL INEQUALITY

As Part III has demonstrated, inequality of life chances *within* a particular country can often pale in comparison with inequality between countries. As in a suspended mobile, the addition or subtraction of any

discretionary income should be given away to the poor); Peter Singer, *Who Deserves the 9/11 Cash Pile?*, SLATE, Dec. 12, 2001, <http://slate.msn.com/?id=2059690>; see generally GARRETT CULLITY, *THE MORAL DEMANDS OF AFFLUENCE* (2004).

139. Posting of Eugene Volokh to *The Volokh Conspiracy*, http://volokh.com/archives/archive_2006_11_12-2006_11_18.shtml (Nov. 13, 2006).

140. *Poor Pakistanis Sell Their Kidneys for Cash*, MSNBC.COM, Nov. 12, 2006, <http://www.msnbc.msn.com/id/15690989/>.

141. Posting of Frank Pasquale to *Madisonian*, <http://madisonian.net/archives/2006/07/18/anti-commodification-principles-as-egalitarian-leverage/> (July 18, 2006).

142. For a dark vision of the problems that could arise here, see Michael Burton, *Future Farm*, http://www.michael-burton.co.uk/HTML/future_farm_text.htm (last visited April 20, 2009). In his art installation, Burton envisions a future where individuals use certain body parts to grow biomaterials for the wealthy. *Id.*

amount of buying power at one point affects the balance of the whole.¹⁴³ In response to these disparities in buying power, many proposals for taxing the high end of medical consumption to subsidize the low end have arisen.

Targeted taxation can promote “difference principled” tiering.¹⁴⁴ Under this theory, subtle, targeted taxation can prove more effective than blunt bans or complex regulatory conditions designed to diminish the purchasing power of the well off. Such taxation ought to apply to the many medical interventions and insurance products that enhance health to the point of making individuals “better than well” or provide a level of access to therapeutic care clearly superior to prevailing standards of care. Difference principled taxation may help bridge the gap between haves and have-nots both within and among different countries.

Legal economists have long advocated replacing restrictive regulation with taxation designed to provide a basic minimum of care. According to the Federal Trade Commission and the Department of Justice report on health care, *Improving Health Care: A Dose of Competition*:

Competition cannot provide resources to those who lack them; it does not work well when certain facilities are expected to use higher profits in certain areas to cross-subsidize uncompensated care. In general, it is more efficient to provide subsidies directly to those who should receive them . . . [to ensure transparency].¹⁴⁵

In response to reasoning like this, some states are forsaking redistributive regulation for a more direct approach. They permit niche providers and cosmetic surgery to flourish, but require these high-end providers to allocate some of their revenues to traditional providers.

There are many critics who question the wisdom of using revenues from one part of the health care system to subsidize other parts. Most believe that a basic level of health care should be provided by the state for all. However, given the ubiquity of anti-taxation rhetoric, “user-based, selective tax proposals are more palatable than broader ones” for many legislators.¹⁴⁶

143. The mobile metaphor is developed by Roger Boesche. Roger Boesche, *Why Could Tocqueville Predict So Well?*, 11(1) POLITICAL THEORY 79, 83 (1983).

144. This type of tiering is named for Rawl’s *A Theory of Justice* famed “difference principle” which stipulates that any increase in inequality is acceptable to the extent it raises the welfare of the least well off. JOHN RAWLS, *A THEORY OF JUSTICE* 61 (1971) (explaining that the difference principle is the “intuitive idea . . . that the social order is not to establish and secure the more attractive prospects of those better off unless doing so is to the advantage of those less fortunate.”).

145. FED. TRADE COMM’N & DEP’T OF JUSTICE, *IMPROVING HEALTH CARE: A DOSE OF COMPETITION* 23 (2004).

146. Lloyd de Vries, *Putting the ‘Vanity’ in Vanity Tax*, CBS NEWS, Jan. 28, 2005, <http://www.cbsnews.com/stories/2005/01/28/national/main670058.shtml> (quoting Bert Waisaner, tax policy analyst for the National Conference of State Legislatures); *see also*

Such health-industry based taxation also forces various parts of the medical and insurance establishments to pay for their own past opposition to universal coverage and the cost-containment measures it entails.¹⁴⁷ Finally, taxing tiering is an approach designed to permit consumers to make their own decisions about the value of health care and to allow practitioners freedom to gravitate to practice areas where they feel best able to add value (while still respecting their broader obligations to the public).

In the case of cosmetic surgery, the case for taxation is clear-cut. Direct efforts to regulate or end cosmetic surgery implicate philosophical divides over the value of attractiveness, the proper role of medicine, and the moral standing of enhancement relative to therapy. A tax can reflect a broader range of values than a flat ban: some see a tax as primarily aimed at cross-subsidization, while others view it as a way of deterring an activity they find objectionable. Taxation may provide an opportunity for “détente” between those with radically different values.¹⁴⁸ Whatever their concerns about the worth of cosmetic surgery, some egalitarians may even welcome it if it ultimately subsidizes health care for the least well-off.¹⁴⁹ The economics of innovation developed in the field of intellectual property also suggest a positive role for taxation of tiering in the therapeutic health fields; better care for the best-off can eventually diffuse more generally.¹⁵⁰

MICHAEL J. GRAETZ & IAN SHAPIRO, *DEATH BY A THOUSAND CUTS: THE FIGHT OVER TAXING INHERITED WEALTH* 4 (2005) (describing opposition to certain general taxes); see also JONATHAN CHAIT, *THE BIG CON* (2007) (describing anti-tax fervor stoked by supply-side economics).

147. See Theodore R. Marmor & Jonathan Oberlander, *Paths to Universal Health Insurance: Progressive Lessons From the Past for the Future*, 2004 U. ILL. L. REV. 205, 206 (2004) (discussing opposition of professional associations to single-payer plans); Theodore R. Marmor, *The Politics of Universal Health Insurance: Lessons from the Past?*, 4 J. INTERDISC. HIST., 671, 672 (1996) (documenting historical attempts to establish universal health care and the politics that caused its failure).

148. See Cass R. Sunstein, *Second-Order Perfectionism*, 75 FORDHAM L. REV. 2867, 2881 (2007) (discussing “modus vivendi” and incompletely theorized agreements).

149. See Posting of Frank Pasquale to Concurring Opinions, http://www.concurringopinions.com/archives/2006/03/dedicated_venti.html (Mar. 13, 2006) (describing how to create incentives for the rich to voluntarily subsidize the poor); Frank Pasquale, *Two Concepts of Immortality: Reframing Public Debate on Stem-Cell Research*, 14 YALE J. L. & HUMAN. 73, 116-17 (2002).

150. See Posting of Frank Pasquale to Concurring Opinions, http://www.concurringopinions.com/archives/2008/02/badly_socialize.html (Apr. 6, 2009) (comparing diffusion in pharmaceuticals and health care generally); Merrill Goozner, *Innovation in Biomedicine: Can Stem Cell Research Lead the Way to Affordability?* 3 PLOS MEDICINE 611 (2006), available at <http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.0030126>. But see James Boyle, *Cruel, Mean, or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property*, 53 VAND. L. REV. 2038-39 (2000) (arguing that only price discrimination can prevent welfare loss); Michael J. Meurer, *Price Discrimination, Personal Use and Piracy: Copyright Protection of Digital Works*, 45 BUFF. L. REV. 845, 869 (1997) (noting that in the ideal case of price discrimination, each customer is charged her “maximum willingness to pay for the items she purchases.”);

Taxation of tiering can be carefully adjusted to take into account the social usefulness of an activity. It can even be micro-targeted to take into account the relative value of different *aspects* of an activity. For example, in my past work on retainer medicine, I advocated the taxation of queue-jumping and amenity-bundling, but not preventive care, because such care is not adequately provided in the U.S. today.¹⁵¹ Similarly, specialty hospitals merit much less severe taxation than cosmetic procedures: they focus on meeting basic health needs while the latter overwhelmingly amounts to a diversion of medical personnel to non-medical ends. The discussion below starts with an analysis of extant taxation of cosmetic surgery (Section A), then recommends fine-tuning of taxation based on the theory I advanced in *Three Faces of Retainer Care* (Section B).

A. Vanity Taxes

New Jersey adopted a vanity tax in 2004 levied on “any medical procedure performed on [an] individual which is directed at improving [his/her] appearance and which does not meaningfully promote the proper function of the body or prevent or treat illness or disease.”¹⁵² The tax is 6% of gross revenues of cosmetic surgery practices¹⁵³ and carefully draws a distinction between reconstructive and cosmetic procedures.¹⁵⁴ The U.S. Senate considered adding such a tax to health care reform proposals in 2009,¹⁵⁵ and many states have considered similar measures.¹⁵⁶ State Senator Karen Keiser upped the redistributive ante in Washington State, offering a

Michael J. Meurer, *Copyright Law and Price Discrimination*, 23 *CARDOZO L. REV.* 55, 70 (2001) (describing the prevalence of third-degree price discrimination in copyright dependent industries).

151. *The Three Faces of Retainer Care*, *supra* note 39, at 42.

152. Cosmetic Medical Procedure Tax, N.J. STAT. ANN. § 54:32E-1 (West 2006).

153. § 54:32E-1(a) (West 2006) (“There is imposed and shall be paid a tax of 6% on the gross receipts from a cosmetic medical procedure, which shall be paid by the subject of the cosmetic medical procedure, and which shall be collected from the procedure subject by the person billing the gross receipts from the cosmetic medical procedure when collecting the payment for the cosmetic medical procedure. If more than one person bills gross receipts from a single cosmetic medical procedure, each person shall be responsible for the collection of the gross receipts tax on the portion of the gross receipts billed.”).

154. N.J. STAT. ANN. § 54:32E-1(b) (West 2006) (“‘Cosmetic medical procedure’ does not include reconstructive surgery or dentistry.”).

155. Bob Mook, *Unkindest Cut: Tax Proposed on Cosmetic Surgery*, *DENVER BUSINESS JOURNAL*, Dec. 4, 2009, at <http://www.bizjournals.com/denver/stories/2009/12/07/story1.html?b=1260162000%5E2536591> (“Senate Democratic leaders [proposed] a 5 percent tax on elective cosmetic procedures to generate \$5 billion in the next 10 years to help pay for a \$849 billion plan to overhaul the nation’s health care system.”).

156. See Michael D. Ruel, Comment, *Vanity Tax- How New Jersey Has Opened Pandora’s Box by Elevating its Moral Judgment about Cosmetic Surgery without Consideration of Fair Health Care Policy*, 28 *J. LEG. MED.* 119, 126 (2007).

plan to earmark vanity tax revenue for health insurance for poor children.¹⁵⁷ Such a plan was also proposed in Illinois, with proceeds to benefit both medical research and access to basic medical care.¹⁵⁸

Cosmetic surgery is objectionable for many reasons: it sparks positional competitions for appearance, diverts medical resources to non-medical ends, and endangers lives.¹⁵⁹ Nevertheless, advocates of a “vanity tax” can expect stiff opposition from those who profit on cosmetic procedures. The cosmetic surgery lobby’s talking points include the idea that the tax is anti-woman, as 87% of cosmetic procedures are purchased by women.¹⁶⁰ In a critique of the tax, Michael Ruel argues that it is sexist and such surgery is frequently nondiscretionary.¹⁶¹ On such a view, those who discriminate against the plain or unattractive have no obligation to reform their prejudiced attitudes; rather, it is the burden of the unattractive to meet the discriminators’ standards.

The more a given condition is perceived as remediable, the less that condition is accepted in society as a whole.¹⁶² Aesthetic standards tend to ratchet upward, and what was once an effort to distinguish oneself can become *de rigeur* to the point that *not* doing it can become the new abnormal. Women’s advocates have been noticeably cool toward cosmetic surgeons’ efforts to “protect” them; as the National Organization for Women’s (NOW) president Kim Gandy has stated, “[i]n general, I’m opposed to most things that impact women disproportionately, but disproportionate use isn’t a good [m]easure if a tax is unfair or not. I can’t imagine someone arguing against having a luxury tax on yachts because

157. *Id.* at 127-28.

158. *Id.* at 128.

159. Pasquale, *supra* note 37, at 607 (“Certain technologies merit special monitoring because they promote the leveraging of economic advantage into social or cultural advantage without substantially increasing overall social welfare.”).

160. Ruel, *supra* note 156, at 119 (citing AMERICAN SOCIETY OF PLASTIC SURGEONS, 2004 Gender Quick Facts: Cosmetic Procedures 1 (2005)); Press Release, Am. Soc’y of Plastic Surgeons, Am. Soc’y of Plastic Surgeons (ASPS) Opposes Cosmetic Surgery & Physician Taxes, (Jan. 31, 2005).

161. Ruel, *supra* note 156, at 133 (“Women can either feel inferior, enjoy a lower quality of life, and be rejected by mainstream society, or else suffer the pain and toil of cosmetic surgery to achieve the exact same ideals society uses to reject them.”).

162. See Margaret Olivia Little, *Cosmetic Surgery, Suspect Norms and the Ethics of Complicity*, in ENHANCING HUMAN TRAITS 162 (Erik Parens, ed., 1998) (while being short is tolerated, protruding ears are seen as remediable and less readily tolerated); William Saletan, *The Belly and the Blade: The Surgical War on Fat*, SLATE, May 26, 2009, <http://www.slate.com/id/2219033/> (explaining the effectiveness of bariatric surgery and the cost of obesity, and concluding “So look out, fat folks. As we learn more about the intractability of your condition, the good news is that people may stop expecting you to diet or exercise your way to a thinner body. The bad news is, they may start expecting you to go under the knife.”).

more of them are bought by men.”¹⁶³ Other feminists have identified cosmetic surgery as “coercion . . . camouflaged by the language of choice, fulfillment, and liberation.”¹⁶⁴ Anthony Elliott has noted that “the flipside of today’s reinvention craze is fear of personal disposability.”¹⁶⁵ We should interrogate the conditions under which these choices are made, not assume them.

Ruel has also criticized the tax more generally claiming that increased attractiveness significantly improves the lives of those who possess it.¹⁶⁶ Citing Deborah Sullivan’s *Cosmetic Surgery: The Cutting Edge of Commercial Medicine in America*, he claims:

Higher levels of attractiveness correlate to increased life satisfaction, less stress, perceived competency, and a positive balance of everyday life. Therefore, “the more attractive a person is, the more competent and in control of their lives they feel, affirming the attractiveness stereotype.” . . . [G]ood-looking workers generally earn 5% to 10% more in income and hold more prestigious positions.¹⁶⁷

Ruel thus argues vanity taxes unfairly discourage the appearance-challenged from laying claim to these very real human goods.¹⁶⁸ He claims that improved appearance both a) gives individuals a “competitive edge” in various contexts and b) makes them subjectively more satisfied with their lives.¹⁶⁹ But neither of these goals outweigh the advantages of a tax, and the “vanity tax” may even promote the latter.

163. Marisa Meltzer, *Vanity Tax? – Man the Barricades!*, N.Y. TIMES, Oct. 16, 2005, at 6, available at <http://query.nytimes.com/gst/fullpage.html?res=9406E3D8123FF935A25753C1A9639C8B63>.

164. Kathryn Pauly Morgan, *Women and the Knife: Cosmetic Surgery and the Colonization of Women’s Bodies*, in WOMEN, MEDICINE, ETHICS AND THE LAW 40 (S. Sherwin & B. Parish eds., 2002). See also Melanie Latham, *The Shape of Things to Come: Feminism, Regulation, and Cosmetic Surgery*, 16 MED. L. REV. 437, 437 (2008) (describing a range of feminist responses).

165. ANTHONY ELLIOTT, MAKING THE CUT: HOW COSMETIC SURGERY IS TRANSFORMING OUR LIVES 145 (2008). Elliott attributes the appeal of cosmetic surgery to larger economic trends. *Id.*, at 9. “[T]he new economy spawned by globalization intrudes traumatically in the emotional lives of people - with many scrambling to adjust to today’s routine corporate redundancies. . . . [C]orporate layoffs, downsizings and offshorings are affecting people’s sense of identity, life and work. . . . Many have reacted to this sense of social dislocation and economic insecurity - what I term today’s pervasive sense of ambient fear - by turning to forms of extreme reinvention in general and cosmetic surgical culture in particular. Many are calculating that a freshly purchased face-lift or suctioning of fat through liposuction is the best route to improved lives, careers and relationships.” *Id.*

166. Ruel, *supra* note 156, at 123-24.

167. Ruel, *supra* note 156, at 123-24 (quoting DEBORAH SULLIVAN, COSMETIC SURGERY: THE CUTTING EDGE OF COMMERCIAL MEDICINE IN AMERICA 25 (2000)).

168. *Id.*

169. *Id.*

Ruel assumes that if more people become more attractive, all will share in the “advantages” once enjoyed only by the appearance-favored.¹⁷⁰ He neglects to address the distributional and positional aspects of advantage.¹⁷¹ The role of enhanced appearance has been modeled by economist Robert Frank, who sees it as a classic example of a positional good (one whose value, far from being inherent, directly derives from its comparison with others).¹⁷² The appearance game is zero-sum; some move up only by pushing others down by comparison.

What about the subjective dimensions of Ruel’s claim? We might first question whether vanity should be given any weight in a utilitarian calculus. But perhaps the very relativity of attractiveness makes taxation of appearance-enhancement extraordinarily efficient. Consider Yew-Kwang Ng’s work on diamond goods:¹⁷³ Ng studied goods that are valued not necessarily for their intrinsic beauty or worth but for their ability to show off one’s wealth.¹⁷⁴ People have a set “diamond budget,” and it doesn’t really matter if 10% or 90% of that goes to the government or DeBeers. If the same logic applies to physical appearance enhancement, the tax might leave all better off.

B. Taxing Tiering Generally

While taxation for tiering may appear attractive when it is concerned with elective medical treatment such as cosmetic surgery, it is more controversial in other contexts. In a recent article, journalist Sarah Lyall discussed the tensions between public provision and private markets in the

170. *See id.* at 123-25.

171. *See, e.g.,* JONATHAN WOLFF & AVNER DE-SHALIT, *DISADVANTAGE* 21 (2007) (describing how any theory of disadvantage needs to “allow us to identify the least advantaged, and, ideally, to place each member of society on a scale of relative advantage and disadvantage, as well as being able to identify absolute disadvantage.”). Assume, for instance, that three associates at a law firm are bald (A, B, and C), and one has a full head of hair (D). Only one can make partner, and all have equal performance records and client contacts. D eventually gets the job on the basis of his presumed higher level of attractiveness to clients. Now assume that C gets surgical hair implants, to “level the playing field” between him and D. It is far from likely that the firm will suddenly decide to make two partnerships available rather than one. The same logic applies to less dramatic allocations of earning power or professional advance. Of course, positional competitions can develop among many different axes; associates may also compete by billing more hours, developing their legal skills, or wooing clients. Note, though, that each of these strategies for success objectively increases the efficiency of the firm and increases the likelihood of expansion of the ultimate “prize,” be it higher pay, more partnerships, or more complex work.

172. Robert H. Frank, *Positional Externalities Cause Large and Preventable Welfare Losses*, 95 *AM. ECON. REV.* 137, 137 (2005).

173. Richard Dusansky, Comment, *Diamonds Are a Government’s Best Friend: Burden-Free Taxes on Goods Valued for Their Values*, 79 *AM. ECON. REV.* 1285, 1285 (1989).

174. *Id.*

United Kingdom.¹⁷⁵ Lyall focused on the case of a breast cancer patient who wanted to use Avastin, a new anti-cancer drug.¹⁷⁶ The National Health Service (NHS) provided most of her care, but would not pay the \$120,000 needed for Avastin.¹⁷⁷ The patient was prepared to sell her house to purchase the medicine, but then the NHS said that her choice to “go private” for the cancer drug would render her ineligible for NHS coverage of the other care she needed.¹⁷⁸ Explaining such a policy, the health secretary, Alan Johnson, said:

Patients “cannot, in one episode of treatment, be treated on the N.H.S. and then allowed, as part of the same episode and the same treatment, to pay money for more drugs.” Officials said that allowing Mrs. Hirst and others like her to pay for extra drugs to supplement government care would violate the philosophy of the health service by giving richer patients an unfair advantage over poorer ones.¹⁷⁹

Note that the NHS is not actually denying her care—rather, it is refusing to pay for the care she receives. There are some good reasons for the NHS to manage the interaction of public and private plans, which even the famously market-friendly U.S. has recognized in its limits on “balance billing” in the Medicare context. In the U.S., doctors who try to bill Medicare patients above the Centers for Medicare and Medicaid Services (CMS) guidelines of treatment costs are prevented from doing so by balance billing rules.¹⁸⁰ These rules arose out of concerns about potential barriers to access to care for poor and lower middle class Medicare beneficiaries.¹⁸¹ Without such rules, physicians could condition services to Medicare patients on the payment of additional charges that would undermine the programs’ efforts to provide reasonably-priced health care to all. Under Medicare balance billing rules, participating physicians’ charges are limited by the fee schedule prescribed by the program.¹⁸² Physicians who accept assigned claims are prohibited “from charging more than the Medicare fee schedule amount.”¹⁸³ Physicians who “do not accept assignment are prohibited from charging more than 115% of the fee

175. Sarah Lyall, *Paying Patients Test British Health Care System*, N.Y. TIMES, Feb. 21, 2008, at A12, available at <http://www.nytimes.com/2008/02/21/world/europe/21britain.html?ex=1361250000&en=d488f4fca56dcc71&ei=5088&partner=rssnyt&emc=rss>.

176. *Id.*

177. *Id.*

178. *Id.*

179. *Id.*

180. Brennan, *supra* note 39, at 1166.

181. *Id.*

182. *The Three Faces of Retainer Care*, *supra* note 39, at 57.

183. *Id.*

schedule amount.”¹⁸⁴

Should the principles behind a balance billing rule be extended from physician services to technologies and drugs like Avastin? Given the artificial scarcity of doctors’ services mentioned above, laws restricting combination of private and public funds for medical *services* may be more appropriate than those relating to drugs. Some of the money paid for cutting-edge treatments like Avastin will fund pharmaceutical research. Perhaps it is the case that the private-paying patient is driving up the cost of the drug, particularly if it is very difficult to make. This may well be the case with Avastin, as it is part of a class of biotechnology (monoclonal antibodies) that is generally more difficult to replicate than the average pill.¹⁸⁵ Even if that is the case, however, the current investment in the drug may well lead to better technology for its replicability.

When we turn from technology to services, different economic dynamics emerge. Physician supply is relatively fixed. Both right-leaning Milton Friedman¹⁸⁶ and left-leaning Dean Baker¹⁸⁷ have portrayed physician licensing rules as cartel-like; others might accept the AMA’s insistence that only a relatively small group of people are sufficiently smart and dedicated to become doctors. Whatever one’s take on the legitimacy of physician licensing, it limits the number of doctors in a manner that is not responsive to price. Thus, when someone pays \$250 for a private consultation to “jump the queue” of patients waiting to see a physician, they are not likely contributing to a process that will lead more doctors to be licensed. The number of licenses granted is a political, not an economic, decision.

More empirical and sociological research must be done to examine the full range of effects of “top-up” payments for care. Perhaps doctors in Britain are willing to work more to do private consultations, and won’t effectively substitute out NHS patients for private patients when the latter pay more.¹⁸⁸ Some drugs’ effectiveness may be severely diminished by the

184. *Id.*

185. For background on biotech drugs, see Patricia Seliger Keenan, Peter J. Neumann, Kathryn A. Phillips, *Biotechnology and Medicare’s New Technology Policy: Lessons From Three Case Studies*, 25 HEALTH AFFAIRS 5, 1260 (2006), available at <http://content.healthaffairs.org/cgi/reprint/25/5/1260>.

186. Keith B. Leffler, *Physician Licensure: Competition and Monopoly in American Medicine*, 21 J. L. & ECON. 165, 166 (1978).

187. DEAN BAKER, THE CONSERVATIVE NANNY STATE, HOW THE WEALTHY USE THE GOVERNMENT TO STAY RICH AND GET RICHER 20 (2006), available at <http://www.conservativenannystate.org/cnswebbook.pdf>.

188. On the other hand, doctors may find that they obtain both more leisure and more money when they concentrate their efforts toward the comparatively well-off and away from the publicly insured. As Robert Kuttner has argued in the U.S. context, “given the system’s fragmentation and perverse incentives, much cost-effective care is squeezed out, [and] resources are increasingly allocated in response to profit opportunities rather than medical need.” Kuttner, *supra* note 95, at 549-50. Kuttner examines a “false economy” of market

time they reach the public domain. For example, Kevin Outterson notes that while the developed world's research on antibiotics is a great service to the rest of globe, its frequent overuse of antibiotics during their patent terms could render them much less useful over time (due to antibiotic resistance).¹⁸⁹ Moreover, critics like Shannon Brownlee and Maggie Mahar have said that the U.S. has far too many diagnostic machines, leading to overtreatment and overspending on medical technology.¹⁹⁰

In theory, there is more reason to be concerned about medical services being disproportionately commandeered by the relatively well-off than there is with respect to drugs and technology. Markets can create incentives for innovation and investment in the latter field, and physician licensing rules make it much harder to do so in the former. Nevertheless, more empirical research in each field is necessary in order to assess the full impact of fractal inequality on access to care and medicine.

VI. CONCLUSION

Every decent society strives to provide a social minimum: a basic level of food, shelter, and health care assured to even its poorest members. Health law attempts to enact this idea of a social minimum, both domestically and globally. In the U.S., the Emergency Medical Treatment and Active Labor Act of 1986 requires hospital emergency rooms which receive federal funding to screen and stabilize anyone who arrives with a serious condition. Medicaid and charity care requirements assure some level of access to health care for the indigent. Internationally, some intellectual property laws governing pharmaceuticals grant poor countries the right to compulsorily license lifesaving drugs in times of emergency.

There are also "ceilings" of care designed to assure that certain types of health care or health enhancement are unavailable, expensive, or taxed. Organ purchases and genetic engineering are largely banned, and bodily enhancements such as steroids and cosmetic surgery (along with cognitive enhancements such as mood-normalizing and mind-concentrating drugs) are subject to regulation. Many scholars predict that cutting-edge regenerative medicine could greatly extend its patients' lifetimes. If such

incentives that appear better designed to motivate focus on the wealthiest and healthiest patients than to achieve real cost-control. For example, "some [doctors] defect to 'boutique medicine,' in which well-to-do patients pay a premium, physicians maintain good incomes, and both get leisurely consultation time. It's a convenient solution, but only for the very affluent and their doctors, and it increases overall medical outlays." *Id.* at 551.

189. Outterson, *supra* note 5, at 67-68. As Outterson observes, "[a]ntibiotic resistance may be compared to running on a treadmill. R&D is learning how to run faster; conservation is slowing the treadmill down." *Id.* at 69.

190. SHANNON BROWNLEE, OVERTREATED: WHY TOO MUCH MEDICINE IS MAKING US SICKER AND POORER 144 (1st ed. 2007); MAGGIE MAHAR, MONEY-DRIVEN MEDICINE 4 (2006).

medical care is prohibitively expensive for the vast majority of persons, should it be permitted? Or is there something grotesque about a social order that grants wealthy individuals lifetimes that are twice or three times as long as those who cannot afford such therapies? As such innovations develop, none should be considered in isolation from its overall effect on public health.

Over twenty years ago, Enthoven and Kronick described the “paradoxes of excess and deprivation” in the American health care system.¹⁹¹ Since then, its reticulated inequalities have not only intensified but have also spilled over into other countries via “brain drains,” medical tourism, and underground organ markets.¹⁹² In an era of fractal inequality, struggles for egalitarian redistribution within nation-states can have unexpectedly *inegalitarian* effects on international patterns of access.¹⁹³ Preserving a social minimum within the U.S. and abroad will depend on creative and context-sensitive systems of taxation that reallocate resources from those with the highest buying power to those whom they consistently outbid for access to care. In situations of exponential inequality, exponentially progressive taxation may well be necessary to remedy disparities in purchasing power.¹⁹⁴

Traditional economic analysis may not be much help when policymakers address fractal inequality. Economic analysis is often unapologetically functionalist: as Hirschman described its origins in the *doux commerce* school, one of its basic ideas is the prevalence of mutual gains from trade given comparative advantage.¹⁹⁵ Gains from trade become the foundation of an economic order that promises increasing GDP, health status, and comfort. This story has broadly described much of North American, Western European, and Asian development. But what happens when critical resources—such as oil, timber, or wheat—are in short supply? As Malthusian concerns arise, which countries continue to grow, and which stop? Given how quickly general technological superiority can be converted into

191. A. Enthoven & R. Kronick, *A Consumer-Choice Health Plan for the 1990's: Universal Health Insurance In A System Designed to Promote Quality and Economy* (1), 320 *NEW ENG. J. MED.* 29, 29 (1989).

192. See RAYMOND TALLIS, *HUNGER* 139 (2008) (“frenzied consumption in developed countries may distort the economies of developing countries with impoverishing consequences.”).

193. Posting of Frank Pasquale to Concurring Opinions, http://www.concurringopinions.com/archives/2008/01/paradoxes_of_ex.html (Jan. 19, 2008).

194. David Leonhardt, *Richly Undeserved*, *N.Y. TIMES*, Apr. 12, 2009, at M20 (arguing for reconsideration of older tax brackets, because “yesterday’s tax code, unlike today’s, had separate marginal tax rates for the truly wealthy and the merely affluent.”).

195. ALBERT O. HIRSCHMAN, *RIVAL VIEWS OF MARKET SOCIETY* 117 (1992). As individuals and groups specialize, the storyline goes, they become more expert at what they do and more efficiently produce goods and services used by others.

military superiority, the stakes here are very high. Zero-sum games limit the utility of classic characterizations of market efficiency.

Functionalists tend to explain how all parts of a given social order fit together in a self-regulating order, like the organs within a body. By contrast, conflict theories focus on times of crisis and change, underscoring the ways in which different classes, professional groups, ethnic groups or states challenge one another for scarce material or symbolic resources. Zero-sum contests for influence and power remain prevalent within our social world, and cause particular concern in the health care sector. A relatively fixed supply of doctors can mean that any group that uses its buying power to purchase disproportionately time-consuming (and often unnecessary) medical attention threatens to divert care from those with less purchasing power. Fractal inequality of income and wealth forces us to reconsider the relationship between markets and health care. If high levels of inequality persist, policymakers will need to reinforce the redistributive aspects of health care law.