

A Health Care SEC: Sunshine is the Best Disinfectant

Regina E. Herzlinger

Nancy R. McPherson Professor of Business Administration

Harvard Business School

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A Health Care Securities and Exchange Commission^a

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Nancy R. McPherson Professor of Business Administration
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Dear Chairman Waxman and honorable committee members.

Thank you so very much for giving me the opportunity to testify on private-public health care transparency. I am going to address the creation of a new agency, a health care SEC whose purpose is to enable Americans to know the quality and prices of their health care providers—hospitals, doctors, and so on—and insurers.

It would, for example, enable men contemplating prostate surgery or women about to undergo a mastectomy to know the death and disability rates achieved by potential surgeons—infections, clots, medical errors like leaving a sponge in the patient, impotence, rates of readmission for complications after surgery; the infection rates of the hospital unit in which they practice; and the prices they charge patients with similar medical characteristics, such as age, gender, and health status. Transparency would also enable consumers to better evaluate their insurance firms through information about the number and types of complaints the firm received from irate customers or medical care providers and their responsiveness to them.

This kind of transparency would enable properly informed consumers to reform health care by selecting the providers and insurers that give better-value for the money. It would also lower the health-

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care sector's cost of raising capital, as investors, lenders, and donors gained greater clarity about an institution's real clinical performance.

Americans want government to help them make buying decisions by providing such good information. They like SEC data about corporate financial performance, EPA data about cars' pollution, and USDA and FDA data about whether our chuck roast is prime or choice grade and the cleanliness of supermarkets. Expert, clear communicators help consumers to interpret these sometimes arcane data – *Consumer Reports* for cars and media business gurus for stocks.

When it comes to our troubled health care sector, Americans want government to provide information too. Why do we know more about the quality and prices of Raisin Bran cereal and supermarkets than about our doctors and the hospitals in which they practice?

What does not get measured does not get managed.

In this paper, I discuss how to reform our health care system through the creation of a new federal government agency that requires and enforces transparency.

The Impact of Information on Markets

Information makes ignorant people smart.

I confess: I have only the dimmest notion of how a car functions. After all, a car is a high-tech device, studded with microchips. I am alone in my ignorance. When I see someone in an automobile showroom peering under the hood of a car, I think to myself, "What the heck are you looking at?"

Nevertheless, I can readily find the kind of car I want at a price I am willing to pay. My quality choices have increased substantially since 1966, while the cost of a car has decreased as a proportion of income:¹ As a result, 48 percent of the poor own cars and 14 percent own more than one.²

How is it that an ignoramus like me can easily find cars that are better and cheaper?

And, as only one person in a vast sea, why am I not pillaged in the automobile market?

The answer to these questions rests in an understanding of how markets work. Two ingredients are crucial:

One is information. It enables me to be an intelligent car shopper, despite my ignorance.

I peruse the rating literature for a car that embodies the attributes I value: safety, reliability, environmental friendliness, and price. Objective, trustworthy information about these attributes is easily available to me. When I studied *Consumer Reports* for cars with these attributes, two brands satisfied my requirements: Volvo and Buick. I skipped the earnest reviews of how the engines work, fuel efficiency, comfort, handling, styling, and so on. Safety, environmental quality, reliability, and price—these are what interest me.

When *Consumer Reports* rated Volvo high on safety, it grew from an obscure Swedish brand to a nationally recognized car in the US .³ Volvo's rivals saw that a meaningful number of customers were interested in safety and reliability and introduced these qualities into their cars. By 2005, U.S. cars exceeded European ones in reliability, and the Japanese cars had only a small edge.⁴ Quite a change from 1980 when U.S. cars were three times as unreliable as Japanese ones and twice as unreliable as European vehicles.⁵

So information made me smart and caused car manufacturers to improve their products. But why should the car manufacturers from cut their prices or improves their quality for me? After all, I am only one person.

The critical second ingredient to an effective market is a small group of marginal, tough-minded buyers. At a high price, there are only a few buyers who are more or less price insensitive. The good news for businesses is that these customers are willing to pay a very high price. The bad news is that there are only a few of them. To attract more customers, suppliers reduce their prices. The increased volume of customers more than compensates for the reduction in price. Suppliers continue to cut prices until they hit

a brick wall: the last picky, tough-minded customers who clear the market. The price these tough-nosed buyers are willing to pay is roughly equal to the marginal cost of making the product. The rest of us benefit from the assertiveness of the last-to-buy crowd. And it is a relatively small group. A McKinsey study showed, for example, that only 100 investors “significantly affect the share prices of most large companies.”⁶

These hard-nosed buyers are highly adept in finding, interpreting, and using information. They are the show-me crowd, the marginal consumers bloodlessly depicted on the bottom of the Economics 101 downward sloping demand curve. This relatively small group of demanding consumers rewards suppliers who reduce price and improve quality. The car market illustrates their impact. Currently, automobile prices are the lowest in two decades. In 1991, the average family required 30 weeks of income for the purchase of a new vehicle; by 2008, a new vehicle required 22.8 weeks—a 24 percent decline from 1991.^{7,8} Simultaneously, new-vehicle quality has improved dramatically (33% in the last 10 years alone).^{9,10} The range of choices is better too, as the quality differences between the best and worst manufacturers have declined.¹¹

Health Care Consumers of Information

As in the automobile market, smart, informed consumers—consumers who have access to good information and the freedom to choose health care plans and providers optimized in classic Economics 101 fashion—for example, will make our health care system better and cheaper. The satisfaction and cost data collected by the Buyers Health Care Action Group (BHCAG), the Twin Cities’ employer coalition encouraged patients to leave high-cost/low-satisfaction plans for lower-priced/higher-satisfaction plans, thereby prompting physicians to offer more bang for the buck. The program led to a nearly 20 percent drop in high-cost/low-satisfaction plans and a 50 percent increase in low-cost/high-satisfaction plans.¹²

Even in the absence of consumer control, the gathering and dissemination of information exerts powerful effects on suppliers.¹³ In accounting, this phenomenon is known as the *audit effect*.¹⁴ Firms improve their management in anticipation of an accounting audit. In health care, many of the reviews of the impact of published performance data on physicians, hospitals, and insurers have concluded that they resulted in improved outcomes and/or processes.¹⁵ One study found higher condition-specific performance on a national quality reporting program associated with lower risk-adjusted mortality for each of the three conditions.^{16,17}

Yet health care policy analysts argue that a consumer-driven health care system cannot work because average consumers will be stymied by the process of selecting among differentiated health insurance products.^{18,19} These analysts may fail to appreciate the impact of those tough-minded buyers on a market. Nevertheless, their argument does raise a question: Does a marginal group of tough-nosed, market-clearing consumers exist in health care?

Current generations are much better educated: In 2004, 27.7 percent of the population had attained a college education or more, and 85.2 percent were high school graduates.²⁰ In 1960, in contrast, fewer than half the people were high school graduates, and only 7 percent had a college education.²¹

Higher levels of educational attainment increase not only income and ability but also self-confidence (referred to as “self-efficacy” in the health policy literature²²). Affluent Web surfers embody this self-efficacy—they spend more time than others searching for information on the net before making a purchase and are much more likely to buy, once they have found a good value for the money.²³ Those who focus only on their affluence miss the point: Affluent or not, they eat the same bread, buy the same appliances, and wear the same jeans. The same Honda is sold in poor inner-city areas and affluent suburbs. The activism of the affluent Web surfers improves these products for everybody.

Consumers surf the Web for health care information. Harris Interactive's latest data showed 81% of internet users and 66% of all adults were health information seekers.²⁴ Some even study medical information, such as the millions of people who spent an average of 20 minutes at the government's National Institutes of Health Web site, studded with arcane medical journal articles.²⁵ A few even express their activism directly by mastering medical skills, such as CPR and the use of external defibrillators.²⁶

The assertiveness and self-confidence that typify marginal consumers are evident in these health care Internet users. They agree more than average U.S. adults with the following statements: "I like to investigate all options, rather than just ask for a doctor's advice" and "People should take primary responsibility and not rely so much on doctors."²⁷ Their pragmatism is apparent too. They do not search idly. More than 70 percent want online evaluations of physicians,²⁸ and when they obtain the information, they use it.²⁹ Consumers are willing to change hospitals in response to information about their quality.³⁰ Nor is consumer assertiveness limited to the United States. For example, 70 percent of Canadian doctors note that their patients are briefed by Internet information.³¹

Thus, although *average* buyers of health care are not experts, individual consumers can reshape the health care system. As with the automobile markets, the markets that make up the health care system will be guided not by average consumers but by the *marginal* customers who drive the toughest bargain. What they need is information.

The Role of Government in Creating Transparency

The role of government in providing transparency is surprisingly controversial. In the view of Nobel economics laureate George Stigler, the truth will out in markets as competitors expose each others' weaknesses or market analysts unearth it.³² Stigler's analyses revealed that government regulation of information disclosure is not essential to the efficiency of markets.³³ Although his claims and similar

research have been widely tested,³⁴ the empirical research examining the necessity of government action to ensure an efficient market has not yet settled the question.

Some more recent research indicates that in countries that have an SEC-like agency, transparency lowered the cost of capital, because when investors are uncertain about performance, they require higher returns.³⁵ Transparency also helped protect against misappropriation of shareholder returns by managers, as attested by the current outcry against CEO compensation. Most importantly, it enabled appropriate allocation of our resources: investors reward productive, socially responsible firms more than others.

The Failure of Voluntary Transparency

Voluntary transparency does not work. Consider the case of the voluntary Cleveland Coalition, a group of local area businesses who joined forces to collect hospital performance data. The effort was widely lauded. For example, one hospital claimed that the significant decrease in its rate of caesarean sections was “purely driven by the Cleveland Coalition.”³⁶ An evaluation concluded that reductions in risk-adjusted mortality rates and lengths of stay were linked to the performance reports.³⁷⁴

Nevertheless, the effort collapsed when the famous Cleveland Clinic left the group, allegedly because it did not like the performance ratings’ process.³⁸ And the employer group that sponsored the effort did not actively use its results. The only hospital to achieve great results expected that the data would yield many new patients as employers referred their enrollees there; but the predicted surge never materialized. Noted one employer “We weren’t that aggressive.”³⁹ The bureaucratic and paternalistic human resources staff who relied on limited choice to control health care cost, may worry that information may disprove the wisdom of their choices..

The Impact of the U.S. Securities and Exchange Commission (SEC) on Financial Transparency

When the federal government required transparency, we got it! The story of how the U.S. SEC's requirement for transparency transformed the money markets is told below:

Virtually every interest group that has been required to measure its outcomes claims its work is so diffuse its impact cannot be measured. Such claims delayed the measurement of the performance of businesses until the mid-1930s. The stunning absence of information at that time is analogous to the situation in today's health care system: In 1923, only 25 percent of the firms traded on the New York Stock Exchange provided shareholder reports.⁴⁰ Investors were flying blind then, just like today's health care consumers.

The absence was all the more surprising because accounting, the measurement tool for business performance, has existed since the middle of the fifteenth century when double-entry bookkeeping was first codified.⁴¹ But business executives' claims that accounting could not accurately measure company performance and that the cost of measurement exceeded its benefits prevented widespread disclosure of information about the economic performance of the firms they led.⁴²

In the 1930s, U.S. President Franklin Delano Roosevelt (FDR) promulgated the laws that created the SEC. Bucking powerful business opposition, state government involvement, and his own advisors' counsel that he promote laws to grade the firms in the security markets, FDR instead created the SEC to compel audited disclosure about the performance of publicly traded firms, using generally accepted accounting principles (GAAP).^{43,44}

The SEC is a genuine private-public partnership. The governmental SEC requires disclosure, but the auditors and the organizations charged with creating and implementing the audit rules (including the promulgators of GAAP) are housed in private organizations such as the Financial Accounting Standards Board (FASB).

The SEC has failed in its regulatory function. The corporate accounting and governance problems of public U.S. businesses in the twenty-first century were exacerbated by weak SEC enforcement.^{45,46}

But the transparency created by the SEC enabled the broad participation of average Americans in the securities markets and the markets' efficiency.⁴⁷ (*Efficiency* in this context is the degree to which information is so broadly disseminated throughout a market that no participants can benefit from having access to special information available only to them.) Financial reporting reduces the investor's risk, narrows the differences between sophisticated and less sophisticated investors, and reduces the firm's cost of capital. Currently, the U.S. SEC serves as a worldwide model: for example, foreign firms that switch to U.S. transparency practices and standards benefit financially.⁴⁸

All measuring tools improve with use. Accounting was not nearly as accurate a measure of economic performance in 1934 as it is today. No doubt, accounting will improve in the future. In 1687, Newton first measured gravity. By 2000, physicists could measure the minute energy of a *tau neutrino* buried deep within an atom.⁴⁹ In 1953, Crick and Watson first measured the structure of DNA. By 2007, biologists could manipulate the structure of individual genes.⁵⁰ Today's health information measures will also be refined with practice and time.

A Health Care SEC

U.S. securities markets feature the characteristics that health care consumers want: (1) Prices are fair in the sense that they reflect all publicly available information, and (2) buyers use this information to reward effective organizations and penalize ineffective ones. Thus, in the financial markets, positive disclosure of results lowers the firms' cost of capital and improves resource allocation.⁵¹

If these characteristics were present in health care, they would divert resources from health providers that offer a bad value for the money to those that offer a good one. Poor-value-for-the-money providers would shrink or improve. Good-value-for-the-money providers would flourish.

Current health care consumers have little information about the quality of their providers. Indeed, they have better information on raisin bran cereals—they need only read the label—than they have on the surgeon who will operate on their breast or prostate cancer tumors. Publication and widespread dissemination of data about the quality of individual providers, as measured by generally accepted health care outcome principles and audited by certified, independent appraisers of such information, will help ameliorate this problem. Eventually, independent analysts will use this information to compile readily accessible ratings of providers, similar to Morningstar’s excellent system for classifying and rating mutual funds.

The key to achieving these desirable characteristics in health care is legislation for a health care SEC that replicates these essential elements of the SEC model:

1. *An independent agency with a singular focus:* The SEC is an independent agency charged solely with overseeing the integrity of securities and the exchanges on which they are traded. Because of these clear goals and organizational characteristics, the SEC’s mission is not muddled, and it can be held clearly accountable for its performance.
2. *Private-sector analysis:* The evaluation process is primarily conducted by private-sector analysts, who disseminate their frequently divergent ratings. To encourage similar private-sector health care analysts, the new agency should require public dissemination of all outcomes for providers, including clinical measures of quality and related transaction costs.
3. *Focus on outcomes, not processes:* The SEC and FASB focus on measuring the *performance* of organizations. FDR firmly rejected dictating business *processes* or rating businesses as appropriate roles for the SEC.

4. *Penalties:* The SEC requires firms that trade their securities in interstate markets and all such market makers to register with the agency. A corresponding health care agency would oversee the integrity and require public disclosure of information for entities that provide health insurance and services. Like the SEC, it would be armed with powerful penalties for undercapitalized and unethical market participants, including imprisonment, civil money penalties, and the disgorgement of illegal profits.⁵²

The SEC is essentially a profit center, generating a substantial surplus from its filing and penalty fees that offsets its billion-dollar budget.⁵³ A health care version of the SEC could be similarly self-financed, offsetting its expenses with filing fees and fines collected from its constituency.

5. *Private-sector disclosure and auditing:* The SEC relies heavily on private-sector organizations that contain no governmental representation. The new health care agency should similarly delegate the powers to derive the principles used to measure health care performance to an independent, private, nonprofit organization that, like the Financial Accounting Standards Board, represents a broad nongovernmental constituency. The agency would require auditing of the information by independent professionals, who would render an opinion of the information and, because they are organized as partnerships, not corporations, bear personal legal liability for failure to disclose fairly and fully.

The Health Care SEC is one of the most important health care reforms that the U.S. Congress can create.

Thank you.

Appendix

How Not to Make Health Care Transparency Happen

Unfortunately, many well-intended proposals undermine one or more of these essential SEC characteristics.

Private-Sector Analysis

All too often, these proposals require that the health care regulators evaluate and micromanage health insurers and the markets in which they operate.⁵⁴ But these suggestions place inappropriate responsibility on the regulator. One organization should not simultaneously assure the release of accurate data and its analysis. After a while, the organization might be sorely tempted to skew the data so that the analysis is proven correct. As an example of the kind of pressure that a government agency can exert on analysis, 15 percent of the Federal Drug Administration's scientists have said they were inappropriately asked to exclude or alter information in their conclusions.⁵⁵

In the financial markets, neither the SEC nor the FASB assess the quality of the output produced by corporations. Instead, they ensure the provision of reliable, useful information. Private-sector intermediaries including firms such as Morningstar and Bloomberg can then analyze the information and present it to consumers.

Other proposals include the government as a participant in private, nonprofit FASB-like entities such as the National Quality Forum.⁵⁶ This kind of organizational structure places government on both sides of the table, allowing it to act as both regulator and standard setter. It thus compromises the checks and balances that exist between the private-sector FASB and the governmental SEC.

Measuring Outcomes Not Process

The SEC focuses on measures of financial *outcomes*—such as profitability, liquidity, and solvency. It does not dictate *process*—how businesses should achieve these results.

The pay-for-performance (P4P) movement is a worrisome example of the confusion between the two kinds of measures.⁵⁷ A focus on measuring process may deter innovative improvements in quality. For example, one expert concluded that “in diabetes the emphasis on measuring preventative processes of care, rather than assessing outcome measures such as blood pressure and [the markers of sugar in the blood of diabetics] may have the unintended consequence of diverting resources and attention from [the] clinically more productive tasks.”⁵⁸

An Independent Agency with Singular Focus

Some proposals would compromise the focus and independence that characterize the SEC’s organizational structure. They recommend, for example, that an SEC-like agency be housed under the Department of Health and Human Services (HHS),⁵⁹ which oversees the government payments for Medicare and Medicaid, among other activities. This organizational setting could compromise the mission. Because HHS accounts for a large fraction of U.S. health care payments, a health care SEC housed under its wings could be focused on serving the interests of payers, rather than consumers.

Further, the clear accountability of a free-standing agency would be lost in this setting. President George W. Bush’s first SEC commissioner was forced to step down because of the SEC’s failures in ensuring transparency in the financial markets. Because the SEC was a separate agency, he was clearly responsible for its failing; but who in HHS was held responsible for similar failings with implementation of its drug plan?⁶⁰ Although 5 percent of all Medicare recipients who called its drug plan help line were

disconnected and nearly a third found the advice difficult to use, inappropriate, or erroneous, no one was held responsible for these failings.⁶¹

Opposition to Transparency about Health Care Prices and Quality

We live in an information age, surrounded by ubiquitous newspapers, televisions, telephones, computers, radios, magazines, and books, available worldwide, round-the-clock. They address three of our senses—sound, vision, and, for the vision- and hearing-impaired, touch. In 2004, the 8 million people who said they had created a blog were visited by 14 million viewers.⁶² The ubiquity of information responds to people's desires: When there is no demand, there is no supply.

The best sources combine information and accessibility: *Morningstar's* and *Zagat's* restaurant guides' pithy reviews, J.D. Power's powerful brand name, and *Consumer Reports'* accurate, comprehensive ratings typify these qualities. But those who do not like these sources can find many others: If investors judge *Morningstar* excessively terse, the SEC's EDGAR system contains much more information about publicly traded corporations.⁶³ If they prefer professional restaurant reviewers to *Zagat's* amateurs, they can turn to the *Boston Globe's* "Food" section or its equivalent in their own hometown paper. If they question J.D. Power's objectivity or feel that *Consumer Reports* is biased against American cars, they can turn to the federal government's data about cars and airlines, such as those provided by the National Highway Traffic Safety Administration and the Federal Aviation Administration,⁶⁴ or *Car & Driver Magazine* and *Consumer's Digest*. The point is that there is a wealth of information available, and interested consumers can drill down into it as little or as much as they need.

The providers of information help themselves too. In 2006, Google's founders became billionaires because they helped people achieve greater productivity by answering their questions easily and

efficiently. Michael Bloomberg also gained billionaire status because he provided information that helped people to invest in financial instruments with confidence.⁶⁵

Many complain about the absence of similar consumer-driven health care quality information.⁶⁶ The wired generation is especially demanding—80 percent of respondents have noted that the absence of quality information was the most negative aspect of e-health plans.⁶⁷ When information is available, health care consumers have stated they would use it.⁶⁸ Prescient entrepreneurs and wannabe billionaires are already providing them with some of the information they want. The market value of the WebMD consumer health care portal, for example, doubled in four months after its September 2005 IPO.⁶⁹

But many powerful opponents, including the academics and providers discussed above, constrain its development.

Health Care Providers' Opposition to Information

Providers who like the theory of consumer-based choice and information may dislike the reality—the requirement that they be accountable for their performance. More than two-thirds of surveyed physicians have said that the general public should not have access “to information on clinical outcomes.”⁷⁰

To urge their cause, some may claim that performance is intrinsically unmeasurable. But if the performance of medicine cannot be measured, there is no basis for teaching, research, or clinical practice in the field. Others may claim that only they can correctly interpret the data. In this claim, they misunderstand the role of marginal consumers in making markets work.

Yet other providers note the cost and difficulty of obtaining reliable data about the performance of providers who see few patients with a particular medical condition. For example, one *Journal of the American Medical Association* article explained that the cost of collecting the data no doubt exceeds its

benefits.⁷¹ The cost? “As much as \$0.59 to \$2.17 per member per month.” And the benefits? The article does not address the question, perhaps because the benefits easily exceed the data collection costs. For example, if quality data improve the costs of treating a diabetic by as little as 1 percent, the data collection costs will be repaid fiftyfold in less than one year.⁷²

The same report also notes that many data cannot be reliably measured for most doctors because they treat so few of the sick. For example, “a physician would need to have more than 100 patients with diabetes... for a profile to have a reliability of 0.8 or better, while more than 90 percent of all primary care physicians at the HMO [he studied] had fewer than 60 patients with diabetes.”⁷³ A hospital-based study similarly concluded that “the operations for which surgical mortality has been advocated as a quality indicator are not performed frequently enough to judge hospital quality.”⁷⁴

But the purpose of performance measurement is to protect the patient, not the physician or hospital. Physicians who see many diabetics are more likely to develop the expertise needed to care for this complex, challenging disease. If quality data were published, the low-volume physicians and hospitals that cannot generate statistically reliable data will likely lose their patients to those who are achieving excellent outcomes, in part because they see so many diabetics.

The Quality of Health Care Information

A serious but correctable objection is voiced by those who point out that physicians and hospitals should not be held responsible for things they do not control.^{75,76} It is a correctable objection because there are industries that have a long history with management control systems, which are used to evaluate managers. They design them to focus on those outcomes that managers control.⁷⁷ Their experiences could be adapted to health care.

Others worry about the quality of the information. First, much of the language for measuring health care quality has yet to be defined. Second, the risk adjusters that would make it possible to compare the performance of high-risk specialists to those who treat less-severely-ill patients are not yet fully developed.⁷⁸ Third, the raw data are flawed. For example, the federal government's data bank of the adverse actions taken against physicians and dentists has repeatedly been cited for severe flaws, including errors and substantial underreporting of problems.⁷⁹

These are substantial concerns. In the absence of solutions, the information will be seriously distorted. For example, a study that compared the rates of caesarean sections in hospitals, with and without adjustment for the fact that some hospitals might just have more patients prone to caesareans, found that adjustment caused the performance of a fourth of the hospitals in the study to change dramatically; among other changes, 10 percent of those originally classified as especially high or low users of these surgeries were reclassified as normal and some that were classified as normal were reclassified as having greater or lesser rates of surgery than the average.⁸⁰ Physicians may also be dissuaded from caring for very sick patients if outcome measures do not correctly reflect the severity of illness. With imperfect adjustments, physicians will look much better if they care for only those patients who are more likely to recover from their illnesses.

Measurement issues like these are typically resolved with time and experience. The continual evolution in measures of performance of investment management—such as generally accepted accounting principles and *beta*, the measure of risk of different investments—provides an example. Beta has been continually refined since it was first suggested in 1952. Similarly, the system used by Morningstar to rate the investment performance of mutual funds evolved over time. For example, it was changed to allow for the difficulty of generating earnings in different types of investments. It now permits mutual funds operating in poorly performing sectors, say, technology, to earn high ratings if they performed substantially better than their peers, a form of risk adjustment.⁸¹

As the refinement of the measures of financial performance continued, investors had ever-better data with which to evaluate their mutual funds and stocks. Patients who put their health on the line deserve no less. The best way to improve the quality of these data is not to suppress them but rather, to open them to the public.

Endnotes

- ¹ U.S. Census Bureau, *Statistical Abstract of the United States, 2006* (Washington, D.C.: Government Printing Office, 2006), p. 637, Table 962.
- ² Auto Affordability Index, <http://www.Comerica.com>, accessed January 17, 2006.
- ³ Roger K. Powers, *Ward's Automotive Yearbook 2002* (Detroit, Mich.: Ward's Reports, 2002).
- ⁴ C. Tierney, "Asian Auto Brands' Reliability Uneven; Chevy Monte Carlo, Mercury Mariner SUV Rank Among Most Dependable in *Consumer Reports* Survey," *Detroit News*, October 27, 2005, p. 1C; and S. Silke Carty, "Japanese Brands Show 'Nicks,'" *USA TODAY*, October 27, 2005, p. 5B.
- ⁵ "Twenty Years of *Consumer Reports* Surveys Show Astounding Gains," *Consumer Reports*, April 2000, p. 12.
- ⁶ K. P. Coyne and J. W. Witter, "What Makes Your Stock Prices Go Up and Down," *McKinsey Quarterly*, no. 2 (2002), pp. 29–39.
- ⁷ Source: Auto Affordability Index, http://www.comerica.com/Comerica_Content/Corporate_Communications/Docs/Auto_Affordability_Index_Q42008.pdf, accessed March 30, 2009.
- ⁸ Auto Affordability Index, <http://www.Comerica.com>, accessed August 21, 2003.
- ⁹ Source: J.D. Power and Associates, <http://www.jdpower.com/autos/articles/2008-Initial-Quality-Study-Results>, accessed: March 30, 2009.
- ¹⁰ J.D. Power, "Initial Quality Study," 2005. <http://consumercenter.jdpower.com/cc/rd/cc/global/content/ratingsguide.asp>, accessed January 27, 2006.
- ¹¹ J.D. Power, "Initial Quality Study," 2005. © 2005 J.D. Power and Associates. All rights reserved.
- ¹² A. L. Robinow, "The Buyers Health Care Action Group: Creating Incentives to Seek the Sick," in *Consumer-Driven Health Care: Providers, Payers, and Policymakers*, Regina E. Herzlinger, ed. (San Francisco: Jossey-Bass, 2004), pp. 309–316.
- ¹³ M. R. Chassin et al., "The Urgent Need to Improve Health Care Quality," *Journal of the American Medical Association*, vol. 280, no. 11 (September 16, 1998), p. 1003; D. Mukamel and A. I. Mushlin, "Quality of Care Information Makes a Difference," *Medical Care*, vol. 36, no. 7 (July 1998), pp. 945–954; J. H. Hibbard, J. Stockard, and M. Tusler, "Hospital Performance Reports: Impact on Quality, Market Share, and Reputation," *Health Affairs*, vol. 24, no. 4 (July/August 2005), pp. 1150–1160; and J. K. Barr, C. E. Boni, K. A. Kochurka, P. Nolan, M. Petrillo, S. Sofaer, and W. Waters, "Public Reporting of Hospital Patient Satisfaction: The Rhode Island Experience," *Health Care Financing Review*, vol. 23, no. 4 (summer 2002), pp. 51–70.
- ¹⁴ N. C. Churchill and V. Govindarajan, "Effects of Audits on the Behavior of Medical Professionals under the Bennett Amendment," *Auditing*, vol. 1 (winter 1982), pp. 69–90; and S. E. Kaplan, K. Menon, and D. D. Williams, "The Effect of Audit Structure on the Audit Market," *Journal of Accounting and Public Policy*, vol. 9, no. 3 (fall 1990), pp. 197–201.
- ¹⁵ P. S. Romano, J. A. Rainwater, and D. Antonius, "Grading the Graders," *Medical Care*, vol. 37, no. 3 (March 1999), pp. 295–305; J. M. Bentley and D. B. Nash, "How Pennsylvania Hospitals Have Responded to Publicly Released Report on CABG," *Joint Commission Journal on Quality Improvement*,

vol. 24, no. 1 (1998), pp. 40–49; California Institute for Health Systems Performance and the California Health Care Foundation: Results from the *Patients' Evaluation of Performance (PEO-C) Survey: What Patients Think of California Hospitals*, 2001; D. R. Longo, G. Land, W. Schramm et al., “Consumer Reports in Health Care: Do They Make a Difference in Patient Care?” *Journal of the American Medical Association*, vol. 278, no. 19 (fall 1997), pp. 1579–1584; J. A. Rainwater, P. S. Romano, and D. M. Antonius, “The California Hospital Project: How Useful Is California’s Report Card for Quality Improvement?” *Joint Commission Journal on Quality Improvement*, vol. 24, no. 1 (1998), pp. 31–39. G. E. Rosenthal, P. J. Hammar, L. E. Way et al., “Using Hospital Performance Data in Quality Improvement: The Cleveland Health Quality Choice Experience,” *Joint Commission Journal on Quality Improvement*, vol. 24, no. 7 (1998), pp. 347–359; D. P. Smith, G. Rogers, A. Dreyfus et al., “Balancing Accountability and Improvement: A Case Study from Massachusetts,” *Joint Commission Journal on Quality Improvement*, vol. 26, no. 5 (2000), pp. 299–312; “Operation That Rated Hospitals Was a Success, but the Patient Died,” *Wall Street Journal*, August 23, 1999, p. A1; C. E. Milch, D. N. Salem, S. G. Pauker, T. G. Lundquist, S. Kumar, and J. Chen, “Voluntary Electronic Reporting of Medical Errors and Adverse Events. An Analysis of 92,547 Reports from 26 Acute Care Hospitals,” *Journal of General Internal Medicine*, December 22, 2005, pp. 1–6; C. Snyder and G. Anderson, “Do Quality Improvement Organizations Improve the Quality of Hospital Care for Medicare Beneficiaries?” *Journal of the American Medical Association*, vol. 293, no. 23 (June 15, 2005), pp. 2900–2907.

¹⁶ Ashish K. Jha, E. John Orav, Li Zhonghe, and Arnold M. Epstein, “The Inverse Relationship Between Mortality Rates And Performance In The Hospital Quality Alliance Measures,” *Health Affairs*; Vol. 26, Issue 4 (July/August 2007), pp. 1104–1110.

¹⁷ J. H. Hibbard, J. Stockard, and M. Tusler, “Hospital Performance Reports: Impact on Quality, Market Share, and Reputation,” *Health Affairs*, vol. 24, no. 4 (November/December 2005), pp. 1156–1166; and E. C. Becher and M. R. Chassin, “Improving the Quality of Health Care: Who Will Lead?” *Health Affairs*, vol. 20, no. 5 (September/October 2001), pp. 164–179.

¹⁸ J. M. Lambrew, “Choice in Health Care: What Do People Really Want,” Issue Brief (New York: Commonwealth Fund, September 2005). Of course, excessive choice may not be helpful. See, for example, Barry Schwartz, *The Paradox of Choice: Why More Is Less* (New York: Ecco (HarperCollins), 2004). But markets typically solve this problem: suppliers narrow down choices to those that generate the best consumer response.

¹⁹ J. H. Hibbard, J. Dubow, and E. Peters, *Decision Making in Consumer-Directed Health Plans*, Research Report 2003-05, May 2003, AARP Public Policy Institute. <http://www.aarp.org/research/health/privinsurance/aresearch-import-570-2003-05.html>, accessed January 30, 2006.

²⁰ U.S. Census Bureau, *Statistical Abstract of the United States, 2006* (Washington, D.C.: Government Printing Office, 2006), p. 147.

²¹ U.S. Census Bureau, *Statistical Abstract of the United States, 2001* (Washington, D.C.: Government Printing Office, 2002), Table 215, p. 139.

²² J. H. Hibbard, E. M. Peters, P. Slovic, and M. Tusler, “Can Patients Be Part of the Solution? Views on Their Role in Preventing Medical Errors,” *Medical Care Research and Review*, vol. 62, no. 5 (October 2005), pp. 601–616.

²³ Forrester Research, “The Millionaire Online” (Cambridge, Mass.: Forrester Research, May 2000), p. 11.

²⁴ Susannah Fox, “The Engaged E-patient Population, Pew Internet & American Life Project,” August 26, 2008, http://www.pewinternet.org/~media/Files/Reports/2008/PIP_Health_Aug08.pdf.pdf, accessed March 30, 2009.

²⁵ PricewaterhouseCoopers, *HealthCast 2010* (New York: PricewaterhouseCoopers, November 2000), p. 22; and S. Reents, *Impact of the Internet on the Doctor-Patient Relationship: The Rise of the Internet Health Consumer* (New York: Cyber Dialogue, 1999), p. 4, <http://www.cyberdialogue.com/pdfs/wp/wp-cch-1999-doctors.pdf>.

²⁶ “Just Another Day at the Office,” *USA TODAY*, April 16, 2001, pp. 1–2b.

²⁷ Scott Reents, *Impact of the Internet on the Doctor-Patient Relationship* (New York: Cyber Dialogue, 1998), p. 4, www.cyberdialogue.com.

²⁸ *Ibid.*, p. 2.

²⁹ T. E. Miller and Scott Reents, *The Health Care Industry in Transition: The Online Mandate to Change* (New York: Cyber Dialogue, 1998), www.cyberdialogue.com.

³⁰ S. Sofaer, C. Crofton, E. Goldstein, E. Hoy, and J. Crabb, “What Do Consumers Want to Know about the Quality of Care in Hospitals?” *Health Services Research*, vol. 40, no. 6 (Part 2) (December 2005), pp. 2018–2036.

³¹ Simon Avery, “Net not just for wealthy, Statscan says; Survey finds e-mail most popular activity, medical information top search target,” *The Globe and Mail* (Canada), July 9, 2004, p. A10.

³² G. J. Stigler, “The Economics of Information,” in *The Essence of Stigler*, K R. Leube and T. G. Moore, eds. (Stanford: Stanford University, Hoover Institution Press, 1986), pp. 46–66.

³³ G. J. Stigler, “Public Regulation of the Securities Market,” *Journal of Business*, April 1964, reprinted in J. Previts, *The Development of SEC Accounting* (Reading, Mass.: Addison-Wesley, 1981).

³⁴ For similar research, see G. Benston, “Required Disclosure and the Stock Market: An Evaluation of the Securities and Exchange Act of 1934,” *American Economic Review*, Mat. 63 (1973), pp. 132–155. For critiques, see, for example, N. Dopuch, “The Capital Market, The Market for Information, and External Accounting,” *Journal of Finance*, vol. 31, no. 2 (1976), pp. 611–630; and E. Deakin, “Accounting Reports, Policy Interventions, and the Behavior of Securities Returns,” *Accounting Review*, vol. 51, no. 3 (1976), pp. 590–603.

³⁵ Pamela Kent and Jenny Stewart, “Corporate Governance and Disclosures on the Transition to International Financial Reporting Standards,” *Accounting and Finance*, 48(2008): 649–671; Richard Lambert, Christian Leuz, and Robert E. Verrecchia, “Accounting Information, Disclosure, and the Cost of Capital,” *Journal of Accounting Research*, vol. 45, no. 2, May 2007; Christian Leuz and Robert E. Verrecchia, “The Economic Consequences of Increased Disclosure,” *Journal of Accounting Research*, vol. 38, Supplement: 2000; Christian Leuz, Karl V. Lins, and Francis E. Warnock, “Do Foreigners Invest Less in Poorly Governed Firms?, National Bureau of Economic Research Working Paper 12222, May 2006; David c. Burgstahler, Luzi Hail, and Christian Leuz, “The Importance of Reporting Incentives: Earnings Management in European Private and Public Firms,” *The Accounting Review*, Vol. 81, No. 5 (2006): 983–1016; Christian Leuz, “Cross listing, bonding and firms’ reporting incentives: A discussion of Lang, Raedy and Wilson (2006),” *Journal of Accounting and Economics*, 42 (2006): 285–299; Christian Leuz, “IAS Versus U.S. GAAP: Information Asymmetry-Based Evidence from Germany’s New Market,” *Journal of Accounting Research*, Vol. 41, No. 3 (June 2003); Luzi Hail and Christian Leuz,

“International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter?” *Journal of Accounting Research*, Vol. 44, No. 3 (June 2006); and Holger Daske, Luzi Hail, Christian Leuz, and Rodrigo Verdi, “Mandatory IFRS Reporting around the World: Early Evidence on the Economic Consequences,” *Journal of Accounting Research*, Vol. 46, No. 5 (December 2008).

³⁶ “Project’s Collapse Shuts off Information on Hospital Care Quality,” *The Plain Dealer*, August 23, 1999, p. A1.

³⁷ C. A. Sirio and D. Harper, “Designing the Optimal Health Assessment System: The Cleveland Quality Choice Example,” *American Journal of Medical Quality Care*, vol. 11, no. 1 (spring 1996), pp. S66–S69.

³⁸ “Operation That Rated Hospitals Was a Success, but the Patient Died,” *Wall Street Journal*, August 23, 1999, p. A1.

³⁹ *Ibid.*

⁴⁰ J. Seligman, *The Transformation of Wall Street* (Boston: Houghton Mifflin, 1982), pp. 43–48.

⁴¹ Michael Chatfield, *A History of Accounting Thought* (Huntington, N.Y.: Krieger Publishing, 1977), p. 32.

⁴² . Carey, *The Rise of the Accounting Profession* (New York: American Institute of Certified Public Accountants, 1970), pp. 1–16.

⁴³ Seligman, *The Transformation of Wall Street*, p. 41.

⁴⁴ *Ibid.*

⁴⁵ M. Maremont and D. Solomon, “Missed Chances: Behind SEC’s Failings: Caution, Tight Budget, ‘90s Exuberance—Its Reactive Culture Made Agency Slow off the Mark While Spitzer Raced Ahead,” *Wall Street Journal*, December 24, 2003, p. A1; P. Adams, “SEC Fund Reform: Is it Stalling? Weakening: Many Critics Say the SEC’s Effort to Clean Up the Mutual Fund Industry Is Losing Steam,” *Baltimore Sun*, May 11, 2004, p. 1C; C. Johnson, “Accountability Rules Defended; Enforcement Chief Recalls Large-Scale Frauds,” *Washington Post*, March 19, 2005, p. E1; and S. Labaton, “SEC’s Oversight of Mutual Funds Is Said to Be Lax,” *New York Times*, November 16, 2003, p. 1.

⁴⁶ Amit R. Paley and David S. Hilzenrath, “SEC Chief Defends His Restraint; Cox Rebuffs Criticism of Leadership During Crisis,” *The Washington Post*, December 24, 2008; Binyamin Appelbaum, “Madoff Case ‘Failures’ Put SEC in Spotlight, Agency Looked for, Didn’t Find Fraud,” *The Washington Post*, December 19, 2008.

⁴⁷ See, for example, Seligman, *Transformation of Wall Street*, pp. 561–568.

⁴⁸ David Weil, Archon Fung, Mary Graham, and Elena Fagotto, “The Effectiveness of Regulatory Disclosure Policies,” p. 169, *Journal of Policy Analysis and Management*, vol. 25, no. 1, (2006), pp. 155–181.

⁴⁹ B. Schwarzschild, “The Tau Neutrino Has Finally Been Seen,” *Physics Today*, vol. 53, no. 10 (October 2000), pp. 17–19.

⁵⁰ L. L. Cavalli-Sforza, “The Human Genome Diversity Project: Past, Present and Future,” *Nature Review Genetics*, vol. 6, no. 4 (April 2005), pp. 333–340.

- ⁵¹ S. P. Kothari and J. E. Short, “The Importance of Corporate Disclosure: How Market Transparency Affects the Firm’s Financial Health” (Cambridge, MA: MIT Center for eBusiness, Research Brief 11, no. 2, August 2003).
- ⁵² U.S. Securities and Exchange Commission, “About the Division of Enforcement,” www.sec.gov/divisions/enforce/about.htm, accessed January 24, 2006.
- ⁵³ U.S. Securities and Exchange Commission, *In Brief. Fiscal 2006. Congressional Budget Request*, February 2005, pp. 31–32, www.sec.gov/about/secfy06budgetreq.pdf, accessed January 24, 2006.
- ⁵⁴ L. Etheredge, “Promarket Regulation: An SEC-FASB Model,” *Health Affairs*, vol. 16, no. 6 (November/December 1997), pp. 22–25.
- ⁵⁵ “Some FDA Scientists Claim Interference,” *Reuters*, July 21, 2006.
- ⁵⁶ T. Miller and S. Leatherman, “The National Quality Forum: A ‘Me-Too’ or a Breakthrough in Quality Measurement and Reporting?” *Health Affairs*, vol. 18, no. 6 (November/December 1999), pp. 233–237; J. Morrissey, “Let the Safety Begin. NQF (National Quality Forum) Endorses Practices, Opens Door for Quality Standards,” *Modern Healthcare*, vol. 33, no. 5 (February 3, 2003), pp. 14–15; K. W. Kizer, “The National Quality Forum Enters the Game,” *International Journal for Quality in Health Care*, vol. 12, no. 2 (April 2000), pp. 85–87; K. W. Kizer, “The National Quality Forum Seeks to Improve Health Care,” *Academic Medicine*, vol. 75, no. 4 (April 2000), pp. 320–321; and N. Lang and K. W. Kizer, “National Quality Forum, an Experiment in Democracy,” *Journal of Professional Nursing*, vol. 19, no. 5 (September–October 2003), pp. 247–248.
- ⁵⁷ R. E. Thompson, “Is Pay for Performance Ethical?” *Physician Executive*, vol. 31, no. 6 (November/December 2005), pp. 60–62; R. M. Pickoff, “Pay For Performance—For Whom the Bell Tolls,” *Physician Executive*, vol. 31, no. 6 (November/December 2005), pp. 12–14; R. S. Mirsky, “Physician Buy-In Is Essential for Pay for Performance,” *Physician Executive*, vol. 31, no. 6 (November/December 2005), pp. 16–19; D. O. Weber, “The Dark Side of P4P,” *Physician Executive*, vol. 31, no. 6 (November/December 2005), pp. 20–25; A. Korn, “Professionalism Reconsidered: Physician Payment from a Health Plan Perspective,” *Health Affairs*, vol. 23, no. 6 (November/December 2005), pp. 48–50; R. Cunningham, “Professionalism Reconsidered: Physician Payment in a Small-Practice Environment,” *Health Affairs*, vol. 23 no. 6 (November/December 2004), pp. 36–47; and E. E. Thompson, “The Ethical Aspects of Gain Sharing with Physicians,” *Physician Executive*, vol. 30, no. 3 (May/June 2004), pp. 20–22.
- ⁵⁸ P. J. O’Connor, “Commentary—Improving Diabetes Care by Combating Clinical Inertia,” *Health Services Research*, vol. 40, no. 6, Part 1 (December 2005), p. 1854.
- ⁵⁹ Institute of Medicine (IOM), *Performance Measurement, Accelerating Improvement* (Washington, D.C.: National Academies Press, 2005).
- ⁶⁰ C. Connolly, “HHS Works to Fix Drug Plan Woes; Widespread Difficulties with New Medicare Benefit Reported,” *Washington Post*, January 18, 2006, p. A3; and M. DoBias, “Medicare Muddle; Rx Drug Benefit Confuses Both Enrollees, Providers,” *Modern Healthcare*, January 2, 2006, p. 8.
- ⁶¹ Leslie G. Aronovitz, *Medicare: Communications to Beneficiaries on the Prescription Drug Benefit Could Be Improved: Report to Congressional Requesters*, GAO-06-654, Washington, D.C.: United States Government Accountability Office, May 2006, available at <http://www.gao.gov>, accessed March 5, 2007.
- ⁶² L. Rainie, *The State of Blogging*, Pew Charitable Trusts, Pew Internet and American Life Project, January 2005, p. 3.

- ⁶³ U.S. Securities and Exchange Commission (SEC), “Filings and Forms,” Electronic Data Gathering, Analysis, and Retrieval System (EDGAR), www.sec.gov/edgar.shtml.
- ⁶⁴ See, for example, safety data for cars at www.nhtsa.gov and for planes at www.faa.gov.
- ⁶⁵ F. Barringer and G. Fabrikant, “Coming of Age at Bloomberg L.P.,” *New York Times*, March 21, 1999, p. 1.
- ⁶⁶ “Health Care Is Back,” *Blueprint*, spring 2000, p. 71.
- ⁶⁷ B. J. Holmes, “HMOs’ eHealth Plan Threat,” Techstrategy Report (Cambridge, Mass.: Forrester Research, January 2001), Fig. 2.
- ⁶⁸ S. Sofaer, C. Crofton, E. Goldstein, E. Hoy, and J. Crabb, “What Do Consumers Want to Know about the Quality of Care in Hospitals?” *Health Services Research*, vol. 40, no. 6 (Part 2) (December 2005), pp. 2018–2036; and Anonymous, “When Consumers Have a Choice of Hospital, Quality Record Counts, According to Survey,” *Health Care Strategic Management*, vol. 22, no. 2 (February 2004), pp. 6–7.
- ⁶⁹ M. Freudenheim, “WebMD Wants to Go Beyond Information,” *MarketPlace*, vol. 23 (February 2006), <http://www.nytimes.com/2006/02/23/business/23place.html?ex=1298350800&en=6935dfe>, accessed February 27, 2006.
- ⁷⁰ Michael Romano, “Performance Anxiety,” *Modern Healthcare*, vol. 30 (May 2005), p. 6.
- ⁷¹ T. P. Hofer, R. A. Hayward, S. Greenfield, E. H. Wagner, S. H. Kaplan, and W. G. Manning, “The Unreliability of Individual Physician ‘Report Cards’ for Assessing the Costs and Quality of Care of a Chronic Disease,” *Journal of the American Medical Association*, vol. 281, no. 22 (July 9, 1999), pp. 2098–2105.
- ⁷² Based on costs of \$10,000 per diabetic and an incidence of diabetes of 7.5 percent. This leads to costs per 1,000 enrollees of \$750,000 for diabetics. A 1 percent reduction, \$7,500, will pay for collecting performance data from 25 doctors at a monthly cost of \$2.50 per member, per month. But because the number of doctors covering 1,000 enrollees is typically 0.5, the payback is fiftyfold.
- ⁷³ Hofer et al., “The Unreliability of Individual Physician ‘Report Cards.’”
- ⁷⁴ J. B. Dimick, H. G. Welch, and J. D. Birkmeyer, “Surgical Mortality as an Indicator of Hospital Quality: The Problem with Small Sample Size,” *Journal of the American Medical Association*, vol. 292, no. 7 (August 18, 2004), pp. 847–851.
- ⁷⁵ E. A. Kerr, E. A. McGlynn, J. Adams, J. Keeseey, and S. M. Asch, “Profiling the Quality of Care in Twelve Communities: Results from the CQI Study,” *Health Affairs*, vol. 23, no. 3 (May/June 2004), pp. 247–256.
- ⁷⁶ Michael Romano, “Performance Anxiety.”
- ⁷⁷ Natalie Frow, David Marginson, and Stuart Ogden, “Encouraging Strategic Behavior While Maintaining Management Control: Multi-Functional Project Teams, Budgets, and the Negotiation of Shared Accountabilities in Contemporary Enterprises,” *Management Accounting Research*, vol. 16, issue 3 (September 2005), pp. 269; and Matthew W. Ford and Bertie M Greer, “The Relationship between Management Control System Usage and Planned Change Achievement: An Exploratory Study,” *Journal of Change Management*, vol. 5, issue 1 (March 2005), pp. 29.

⁷⁸ Michael A. Cucciare and William O'Donohue, "Predicting future healthcare costs: How well does risk-adjustment work?" *Journal of Health Organization and Management*, vol. 20, issue 2 (2006), p. 150.; David Blumenthal, Joel S. Weissman, Melissa Wachterman, Evette Weill, et al., "The Who, What, and Why of Risk Adjustment: A Technology on the Cusp of Adoption," *Journal of Health Politics, Policy and Law*, vol. 30, issue 3 (June 2005), p. 453; and Carolyn Clancy, "Quality Improvement: Getting to How," *Health Services Research*, vol. 38, issue 2 (April 2003), p. 509.

⁷⁹ M. Romano, "System Failure; Most U.S. Hospitals Have Never Filed a Report with the Databank That Records Doctor Suspensions; Critics Say It's Time for a New Method," *Modern Healthcare*, vol. 35, no. 30 (July 25, 2005), pp. 6–8.

⁸⁰ D. C. Aron, D. L. Harper, L. B. Shepardson, and G. E. Rosenthal, "Impact of Risk-Adjusting Caesarian Delivery Rates When Reporting Hospital Performance," *Journal of the American Medical Association*, vol. 279, no. 4 (June 24, 1998), pp. 1968–1983.

⁸¹ "Mutual-Funds Ratings Stars Are Changing," *Wall Street Journal*, April 23, 2002, p. C1.?