Revisiting Incentive-Based Contracts

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Abstract:

Incentive-based pay is rational, intuitive, and popular. Agency theory tells us that a principal seeking to align its incentives with an agent's should be able to simply pay the agent to achieve the principal's desired results. Indeed, this strategy has long been used across diverse industries—from executive compensation to education, professional sports to public service—but with mixed results. Now a new convert to incentive compensation has appeared on the scene: the United States' behemoth health-care industry. In many ways, the incentive mismatch story is the same. Insurance companies and employers are concerned about constraining the cost of care, and patients are concerned about quality of care. Physicians lack an adequate financial incentive to pay attention to either. Health care's recent move away from the traditional fee-for-service compensation model to incentive pay is perhaps unsurprising.

But there is a problem: mixed preliminary evidence and potential mal-effects on vulnerable third-party patients. This Article employs a new lens—the legal and behavioral literature on optimal contract specificity—to suggest why incentive pay is problematic and why the health-care experience will be no different than other industries. The use of incentive pay is a change in contract-drafting strategy, a decision to write a more detailed, control-based contract rather than one that relies on discretion. The contracts literature suggests that this strategy will only work well where simple compliance is the goal rather than creativity or innovation. The health industry will not succeed in implementing incentive pay better than other industries have. What it needs is to recognize the limits of incentive pay and implement it sparingly. The new Trump Administration may be particularly primed to heed this call.

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INTRODUCTION

Incentive-based compensation has its roots in classic economic theory: rational, selfish actors who are motivated to maximize their own wealth will do their best work if they will get a financial reward for doing so. Material incentives are generally believed to be powerful motivators. The Aztecs rewarded successful warriors with land and better food. Roman warriors were rewarded in the same ways. The use of financial incentives in particular is now pervasive across very different industries, from executive compensation to professional sports and education. Common sense and economic principles both suggest that connecting pay to quality metrics will yield better results.

Incentive pay is a concept that almost everyone seems to be able to get behind. Indeed, incentive regimes are a part of the new ideological hybrid—libertarian paternalism—that encourages behavior by making it attractive without regulating it.⁴ The liberal Obama Administration has firmly embraced the idea, arguing that rewarding excellence with pay improves quality.⁵ And conservatives generally support incentive pay because it is essentially a private, market-based solution.⁶ It remains to be seen if the new Trump Administration will stay the course or not, but there is reason to believe it may not.⁷

^{1.} See Monica Dominguez Torres, Military Ethos and Visual Culture in Post-Conquest Mexico 23 (2013).

^{2.} See James Lloyd, Roman Army, ANCIENT HISTORY ENCYCLOPEDIA (Apr. 30, 2013), http://www.ancient.eu/Roman_Army [https://perma.cc/VD26-XJVP].

^{3.} See *infra* Part III.A. for further discussion of other industries' use of incentive pay.

^{4.} See Richard Thaler & Cass Sunstein, Libertarian Paternalism, 93 AM. ECON. REV. 175 (2003) (coining the term libertarian paternalism); see also Eric Felten, Age of Incentives: Paying Big Bucks for Puny Results, WALL St. J. (Jun. 18, 2010), http://www.wsj.com/articles/SB10001424052748704009804575308710787390320 [https://perma.cc/N587-SRYZ] (discussing proliferation of incentive pay as a form of libertarian paternalism).

^{5.} In his March 2009 education speech, Obama argued, "Too many supporters of my party have resisted the idea of rewarding excellence in teaching with extra pay, even though we know it can make a difference in the classroom." Press Release, White House, Remarks of the President to the United States Hispanic Chamber of Commerce (Mar. 10, 2009), https://obamawhitehouse.archives.gov/the-press-office/remarks-president-united-states-hispanic-chamber-commerce [https://perma.cc/C7PL-JLLJ].

^{6.} Exec. Order No. 13,410, 71 Fed. Reg. 51089 (Aug. 22, 2006) ("Each agency shall develop and identify, for beneficiaries, enrollees, and providers, approaches that encourage . . . high-quality and efficient health care."); Juleanna Glover, *A Budget Win in a Conservative Approach to Social Programs?*, WALL St. J.: WASHINGTON WIRE (Dec. 30, 2014) http://blogs.wsj.com/washwire/2014/12/30/a-budget-win-in-a-conservative-approach-to-social-programs [https://perma.cc/RW48-5VT8] (discussing conservative approaches for social-program reimbursements that utilize pay-for-performance schemes).

^{7.} The Trump Administration's new Secretary of Health and Human Services has publicly criticized the shift to value-based care. See, e.g., Bruce Japsen, As Trump's HHS Secretary, Tom Price Could Slow Shift To Value-Based Care, FORBES (Nov. 29, 2016, 7:02 AM),

It may be right to revisit the move to incentive pay. The history of incentive pay across industries has been mixed. Scholars and policymakers have identified a host of observed and potential mal-effects, from cherry picking easy cases or cheating on the metrics, to excessively focusing on the metrics to the detriment of overall quality of performance. The effectiveness of financial incentives in motivating top performance is very much an unanswered question.

But it is a question that the literature on incomplete contracts can illuminate. The issue of how to structure reimbursement agreements is really one of how to draft contracts to maximize party performance. Economists, social scientists, and contracts scholars have contributed to an immense literature addressing the effects of contract drafting strategies on agents' cognition, compliance, and motivation to perform.

This literature—theoretical, experimental, and empirical—is complicated, and at times, seemingly conflicting. Financial incentives can motivate, ¹⁰ but can also crowd out intrinsic motivation. ¹¹ Contract specificity can inform goals and facilitate improved performance, while reducing the likelihood that parties will use contractual gaps to justify unethical behavior. ¹² But specificity can also cause agents to focus too narrowly and ignore hard cases, decreasing overall performance, among a host of other identified effects. ¹³

The literature suggests that the detailed, control-based contracting approach is a better fit for easily measurable, compliance-oriented tasks not requiring creativity or innovation than it is for more difficult-to-define tasks that require motivating the agent's best performance. Experience with incentive-based contracting across industries seems to bear out these predictions.

The health-care industry provides a new lens through which to study this longstanding problem. There is an overtreatment problem in health care that has

http://www.forbes.com/sites/brucejapsen/2016/11/29/as-trumps-hhs-secretary-tom-price-could-slow-shift-to-value-based-care/#3b6187b0f96f [https://perma.cc/U9RQ-3XRS].

^{8.} See infra Part II.B.

^{9.} See, e.g., Andrew M. Ryan & Rachel M. Werner, Doubts About Pay-for-Performance in Health Care, HARV. Bus. Rev. (Oct. 9, 2013), https://hbr.org/2013/10/doubts-about-pay-for-performance-in-health-care [https://perma.cc/J57E-W6GH]; infra Section II(A)(iii).

^{10.} See, e.g., Bengt Holmstrom & Paul Milgrom, Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design, 7 J.L. ECON. & ORG. 24, 25 (1991) (finding that incentive pay motivates hard work and directs allocation of attention among duties).

^{11.} See Edward Deci, Effects of Externally Mediated Rewards on Intrinsic Motivation, 18 J. Personality & Soc. Psych. 105 (1971) (finding that college students will stop playing puzzles for free after being paid to solve them); Wendy Netter Epstein, Facilitating Incomplete Contracts, 65 Case W. Res. L. Rev. 297 (2014) (summarizing the literature on crowd out effects); see generally Daniel Pink, Drive: The Surprising Truth About What Motivates Us (2009) (arguing that intrinsic motivation, rather than external rewards or punishments, is the biggest driver of high performance in the workplace).

^{12.} See infra Part II.

^{13.} Id.

variously been called an epidemic, ¹⁴ one of our nation's most critical issues, ¹⁵ and a catastrophic force that increases the cost of health care. ¹⁶ A recent study of Medicare claims data found that in a single year, a whopping forty-two percent of Medicare beneficiaries had received care known to provide minimal clinical benefit. ¹⁷ According to the Institute of Medicine (IOM), overtreatment—too many tests and too many procedures that do not improve health—is costing the United States at least \$210 billion per year. ¹⁸

Many believe that the traditional system of reimbursement in U.S. health care encourages this overtreatment problem and therefore is highly problematic. ¹⁹ Medicare, and most other payers in the United States, have historically paid physicians on a fee-for-service basis. This means that physicians bill out for, and receive compensation for, each service provided (such as office visits, tests, or procedures). To maximize compensation, doctors must increase the volume of care they provide or bill for more expensive services. Assuming physicians behave as both rational and selfish economic actors, they are incentivized to deliver high-volume, high-cost care. They lack financial incentive to stem systemic costs or deliver high-quality care. ²⁰ Their incentives are mismatched

^{14.} See Atul Gawande, Overkill: An Avalanche of Unnecessary Medical Care is Harming Patients Physically and Financially. What Can We Do About It?, New Yorker (May 11, 2015), http://www.newyorker.com/magazine/2015/05/11/overkill-atul-gawande [https://perma.cc/6CRA-QQAE] (discussing a "global epidemic of overtesting, overdiagnosis, and overtreatment" caused by "[d]octors [who] get paid for doing more, not less"); see also Tara Parker-Pope, Overtreatment is Taking a Harmful Toll, N.Y. Times: Well (Aug. 27, 2012), http://well.blogs.nytimes.com/2012/08/27/overtreatment-is-taking-a-harmful-toll [https://perma.cc/2PZT-R59M].

^{15.} Parker-Pope, *supra* note 14 (discussing how overtreatment "is costing the nation's health care system at least \$210 billion a year, according to the Institute of Medicine, and taking a human toll in pain, emotional suffering, severe complications and even death").

^{16.} Ezekiel J. Emanual & Victor R. Fuchs, *The Perfect Storm of Over-Utilization*, 299 JAMA 2789 (2008) (discussing the "financial incentive for physicians to order and perform more expensive procedures" as one factor in ballooning health-care costs).

^{17.} Aaron L. Schwartz et al., Measuring Low-Value Care in Medicare, 174 JAMA 1067 (2014).

^{18.} INST. OF MED., BEST CARE AT LOWER COST: THE PATH TO CONTINUOUSLY LEARNING HEALTH CARE IN AMERICA 3–10 (Mark Smith, Robert Saunders, Leigh Stuckhardt & J. Michael McGinnis eds., 2013); see also Annie Lowrey, Study of U.S. Health Care System Finds Both Waste and Opportunity to Improve, N.Y. TIMES (Sept. 11, 2012), http://www.nytimes.com/2012/09/12/health/policy/waste-and-promise-seen-in-us-health-care-system.html [https://perma.cc/KX54-YFW8].

^{19.} See generally Adam Candeub, Contract, Warranty, and the Patient Protection and Affordable Care Act, 46 WAKE FOREST L. REV. 45, 51–53 n.27 (2011) (summarizing the literature on the connection—or lack thereof—between expenditures and outcomes in health care); Harold Miller, From Volume to Value: Better Ways to Pay for Health Care, 28 HEALTH AFF. 1418 (2009); Rita Redberg & Judith Walsh, Pay Now, Benefits May Follow – The Case of Cardiac Computed Tomographic Angiography, 359 New Eng. J. Med. 2309 (2008) (arguing fee-for-service inflates health costs); Lynn A. Stout, Killing Conscience: The Unintended Behavioral Consequences of "Pay for Performance", 39 J. CORP. L. 525, 536 (2014) (summarizing the literature).

^{20.} See generally sources cited supra note 19. There are, of course, altruistic reasons providers might care about delivering high-quality care. But there is now little doubt that financial incentives

with those of payers preferring low-cost care and patients preferring high-quality care—similar to the incentive mismatches that motivate the use of incentive pay in other industries.

It is perhaps unsurprising that under the fee-for-service payment system, too much care is being delivered in the United States that does not improve health outcomes.²¹ This problem manifests in a health care system that is the most expensive in the world, yet which suffers from lower overall quality than all other industrialized nations.²²

The general consensus in the industry is that physician financial incentives must be addressed as a part of addressing overall cost and quality concerns.²³ In recent years, the industry has gotten behind the incentive-based compensation solution.²⁴ If the problem is that doctors' incentives are out of step with those of payers and patients, then align their incentives; pay physicians for delivering cost-effective, quality care, not for simply delivering more care.

Just as in other industries, the health-care commitment to incentive compensation evidences a commitment to a more detailed contracting approach. In a fee-for-service system, the contracts between physicians and payers are, relatively speaking, unspecific and make only limited use of control elements, such as reporting requirements and financial incentives tied to performance. Although payers do generally only cover care that is deemed "medically necessary,"²⁵ and do exercise a good deal of control over the list of compensable

can influence the behavior of a significant percentage of physicians.

^{21.} See, e.g., Gawande, supra note 14; Emanuel & Fuchs, supra note 16, at 2790 (discussing the fee-for-service incentive for overutilization).

^{22.} See, e.g., Karen Davis et al., Mirror, Mirror on the Wall, 2014 Update: How the Performance of the U.S. Health Care System Compares Internationally, COMMONWEALTH FUND 8, http://www.commonwealthfund.org/~/media/files/publications/fund-

^{23.} It is worth noting, however, that despite this consensus, implementation of incentive pay is slow to occur.

^{24.} Incentive-based compensation and variants of it go by many names in the literature. See infra note 30; see also Arnold Epstein, Paying for Performance in the United States and Abroad, 355 New Eng. J. Med. 406, 406 (2006) ("Policymakers now almost universally agree that the amplification and extension of the use of financial incentives will promote a higher quality of care.").

^{25.} See, e.g., What Part B Covers, MEDICARE.GOV, https://www.medicare.gov/what-medicare-covers/part-b/what-medicare-part-b-covers.html [https://perma.cc/UWD4-S3PS] [hereinafter What

procedures, a fee-for-service approach gives physicians significant discretion in how they approach care. Importantly, it commits to payment regardless of outcome.

Incentive-based compensation, on the other hand, requires much more detailed contract drafting. The payer provides, *ex ante*, a list of metrics the physician is required to meet. The payer also defines the financial implications of meeting, exceeding, or falling short of those metrics. If fee-for-service contracts tend to be vague in task definition and tend to make limited use of control elements, incentive pay is a move to the other end of the contract-drafting spectrum: detailed task specification and extensive use of contractual control mechanisms such as reporting, monitoring, and financial incentives.

The health-care industry has been focused on how to improve this new payment model—for instance, how to determine the proper amount of the financial incentive and how to choose the correct quality metrics. This Article suggests that focus is misplaced. The key question the health-care industry should be focused on solving is not how to improve this new payment model, although that work may be useful, but rather on where and where not to use the model. The legal, economic, and behavioral literature teaches that an across-the-board approach such as the one currently being hailed in the industry will not be effective. The industry must determine, and then implement, a more nuanced approach that draws the line between tasks where incentive-pay mechanisms will be helpful and those where they will be ineffective at best or harmful at worst. Changing focus in this way is much more likely to yield successful results, even if it requires recognizing that incentive-based compensation cannot solve all of the health industry's problems.

This Article moves the debate forward by starting to sketch some ways the industry might attempt to draw that line. For instance, the health-care industry has massive amounts of data in its possession to help differentiate between the two categories: where incentive pay should be used, and where it should not. It could make better use of that data to target the application of incentive pay. And the health profession has already started to draw some lines that might be helpful to the incentive-pay context: for example, the line between the sort of work that advanced practice providers, such as physicians' assistants, are statutorily permitted to do versus the kind of work only doctors are permitted to do. The line between care where process and outcomes are closely tied and where they are not is also worth considering.

This Article proceeds in four parts. Part I starts by describing the incentive-misalignment problem and how incentive pay is intended to work as a theoretical matter. It then explains how incentive-based compensation is being applied in the health-care context to address the physician-payer-patient incentive-

Part B Covers] ("Medicare covers services . . . and supplies . . . considered medically necessary to treat a disease or condition."); see also Annotation, What Services, Equipment, or Supplies are "Medically Necessary" for Purposes of Coverage under Medical Insurance, 75 A.L.R.4th 763.

misalignment problem and the Affordable Care Act's strong adoption of systemic delivery model reform along these lines.

Because this switch in models is akin to a switch in contract-drafting strategies, Part II surveys the scholarly literature discussing the effect of contract-drafting strategies on agent performance. While there is much still to learn, this literature yields some lessons and suggests some predictions about where a more complete contract that relies on incentive-based compensation is likely to be successful and where it is less likely to be so. It discusses the importance of differentiating between contracts designed to prompt mere compliance and those designed to motivate the strongest possible agent performance.²⁶

Part III then explores the evidence on the effectiveness of incentive-pay regimes, first in the executive compensation, education, and sports industries, and then the preliminary evidence in health care specifically. It suggests that the experience across industries is accurately predicted by the scholarly literature surveyed in Part II.

Finally, Part IV starts the discussion of how payers may refine this new contracting approach in health care to yield more desirable results. The Article argues that the goals of improved quality and reduced cost cannot be accomplished with a one-size-fits-all incentive-pay solution. Some areas of medicine are compliance oriented and can be routinized or automated. Some areas cannot. This Article appreciates the distinction and uses it to define a middle path for incentive pay. Differentiating between areas of medicine that require compliance and those that require creativity and innovation is a difficult, but not impossible, task.

I. THE INCENTIVE-MISALIGNMENT PROBLEM AND THE PREVAILING INCENTIVE-PAY SOLUTION

A. The Incentive Pay Theory

Incentive-based compensation has its roots in agency theory.²⁷ An agency relationship is formed when a principal hires an agent to perform a task on the principal's behalf. The agent and the principal have varying personal interests. The agent's self-interest may cause her to engage in behavior that benefits the

^{26.} Oliver Hart and John Moore famously differentiate between perfunctory and consummate performance. For example, if a contract specifies the number of jokes a comedienne must tell, a perfunctory performance will do strictly that—comply with those requirements. A comedienne delivering consummate performance, however, will go for the big laughs, even though the contract does not specify how funny her jokes must be. See Oliver Hart & John Moore, Contracts as Reference Points, 123 Q.J. ECON 1, 6 (2008).

^{27.} Wendy Netter Epstein, *Public-Private Contracting and the Reciprocity Norm*, 64 AM. U. L. REV. 1, 16-17 (2014) (describing agency theory and incentive alignment); Hamid Mehran, *Executive Compensation Structure, Ownership, and Firm Performance*, 38 J. Fin. Econ. 162, 165-67 (1995) (discussing the application of agency theory in modern executive compensation models).

agent but harms the principal. Problems arise, in particular, when the agent has better information about her performance than the principal—information asymmetry—and when the principal (or the market) cannot easily monitor the agent.

In the classic depiction, aligning the incentives of the principal and agent can mitigate agency problems. For instance, the interests of shareholders and the corporation's CEO may diverge in that shareholders want the CEO to increase company profitability and stock price, but the CEO may be motivated to make choices that will benefit the CEO personally—say empire building by acquiring companies to increase the CEO's power—that are not necessarily in the best interests of the corporation.²⁸ To align incentives, shareholders may tie a CEO's bonus to stock price or profitability or give the CEO equity in the company.

The theory is appealing: tie compensation to the results you want. An economically rational, self-interested agent will be motivated by the prospect of increasing compensation and will act accordingly.²⁹

Within those general parameters, the idea of aligning incentives through compensation takes many forms and goes by many names in the literature, including pay-for-performance, merit (or performance) pay, differentiated pay, performance measures, incentive or value-based compensation, to name some. But the idea is always to specify, *ex ante*, the desired outcomes and the financial reward (or punishment) for attaining the desired goals, and to ensure that the desired outcomes are readily observable, or that goal attainment can otherwise be assessed by monitoring or reporting. A rational agent seeking to maximize

^{28.} See, e.g., LUCIAN BEBCHUK & JESSE FRIED, PAY WITHOUT PERFORMANCE 16 (2004); Andrew C. W. Lund & Gregg D. Polsky, The Diminishing Returns of Incentive Pay in Executive Compensation Contracts, 87 Notre Dame L. Rev. 677, 736 (2011); Troy A. Paredes, Too Much Pay, Too Much Deference: Behavioral Corporate Finance, CEOs, and Corporate Governance, 32 Fla. St. U. L. Rev. 673, 685 (2005); Randall S. Thomas, Explaining the International CEO Pay Gap: Board Capture or Market Driven?, 57 Vand. L. Rev. 1171, 1244 (2004).

^{29.} Wendy Netter Epstein, Contract Theory and the Failures of Public-Private Contracting, 34 CARDOZO L. REV. 2211, 2233–34 (2013); Sarah Bonner & Geoffrey Sprinkle, The Effects of Monetary Incentives on Effort and Task Performance: Theories, Evidence, and a Framework for Research, 27 ACCT. ORGS. SOC'Y 303, 308 (2002).

^{30.} Pay for Performance in Health Care: Methods and Approaches, RTI INT'L 2 (Jerry Cromwell et al. eds., 2011), https://www.rti.org/sites/default/files/resources/bk-0002-1103-mitchell.pdf [https://perma.cc/MER5-UXNF] (discussing performance measures and value-based pay); id. at 33 (defining pay-for-performance); id. at 88 (discussing merit pay). CMS defines pay-for-performance as the "use of payment methods and other incentives to encourage quality improvement and patient-focused high value care." Letter from Dennis G. Smith, Director, Ctr. for Medicaid & State Operations, U.S. Dep't of Health & Human Servs., to State Health Officials (Apr. 6, 2006), http://www.medicaid.gov/Federal-Policy-Guidance/downloads/SHO040606.pdf [https://perma.cc/YH2E-RPQW].

^{31.} See Stout, supra note 19, at 531-32 ("Ex ante agreement to an objective performance goal is essential....").

^{32.} KIERON WALSH, PUBLIC SERVICES AND MARKET MECHANISMS: COMPETITION, CONTRACTING AND THE NEW PUBLIC MANAGEMENT 37 (1995) (describing how principals invoke reporting procedures to assess goals that motivate desired agent performance).

compensation, in theory, will then make every effort to achieve the defined goals.

B. Misaligned Incentives in Health Care

As in other industries, the U.S. health-care industry has problems with misaligned incentives. Health care's traditional fee-for-service compensation model is, in part, to blame. Fee for service means that providers bill and receive payment for each service (e.g., an office visit or procedure) they perform. Compensation can influence the behavior of a significant percentage of providers. A rational provider seeking to increase reimbursement under the current fee-for-service system may choose to bill for more expensive, higher-margin procedures. Alternatively, a provider may choose to bill for a higher volume of procedures from treating more patients or from ordering that more be done for existing patients.

The fee-for-service compensation system creates an incentive mismatch between payers and providers, and to an extent, patients, as well. Payers would prefer for providers to deliver lower cost care. Patients prefer higher-quality care. Providers are incentivized, in a strict economic sense, to provide higher-cost care that is not necessarily linked to higher-quality care. This creates a principal-agent problem. Providers as agents have a certain degree of power to make decisions that impact payers as principals. The problem is created when the physician-agent is motivated to act in ways that further his or her own financial self interest, rather than those of the payer-principal.

Providers cannot engage in strictly self-interested, profit-maximizing behaviors alone. Patients must consent to tests and procedures.³⁸ Payers must also

^{33.} See J. Tufano et al., Effects of Compensation Models on Physician Behaviors, 7 Am. J. MANAGED CARE 363 (2001) (finding that compensation method is perceived to influence physician productivity); see also David Hemenway et al., Physicians' Responses to Financial Incentives. Evidence from a For-Profit Ambulatory Care Center, 322 New Eng. J. Med. 1059, 1059-1063 (1990); Alan Hillman, Mark Pauly & Joseph Kerstein, How Do Financial Incentives Affect Physicians' Clinical Decisions and the Financial Performance of Health Maintenance Organizations?, 321 New Eng. J. Med. 86, 88-91 (1989) (concluding that financial incentives influence physician behavior).

^{34.} See David Hyman & Charles Silver, You Get What You Pay for: Result-Based Compensation for Health Care, 58 WASH. & LEE L. Rev. 1427, 1442 (2001) (noting that FFS compensation "encourages providers to be exhaustive in work-ups and treatments," and to upcode and deliver unnecessary services).

^{35.} See Candeub, supra note 19, at 45-47.

^{36.} See Åke Blomqvist, The Doctor as Double Agent: Information Asymmetry, Health Insurance, and Medical Care, 10 J. HEALTH ECON. 411, 412 (1991); Hyman & Silver, supra note 34, at 1442–43; see generally Stanley S. Wallack & Christopher P. Tompkins, Realigning Incentives in Fee-For-Service Medicare, 22 HEALTH AFF. 59 (2001) (discussing the incentive mismatch in fee-for-service Medicare).

^{37.} See Sheila Leatherman et al., The Business Case for Quality: Case Studies and an Analysis, 22 HEALTH AFF. 17 (2003).

^{38.} See Paul Appelbaum, Assessment to Patients' Competence to Consent to Treatment, 357 New Eng. J. Med. 1834 (2007) ("Physicians are required by law and medical ethics to obtain the

agree to pay. And physicians are limited by the fraud and abuse and tort laws in what they can do to pursue heightened personal compensation.³⁹

But providers have a lot of power. Most patients lack effective means to evaluate a provider's advice on what testing or procedures are necessary. And most patients do not sufficiently care about incurring the cost of additional procedures because they do not experience the true cost. Most patients pay only small (relatively speaking) copays or a low percentage of the total cost of the procedure. Some patients may make decisions based on cost. For others, cost may not be a highly salient part of the decision calculus. As such, providers are positioned to greatly influence treatment decisions simply by their advice to patients.

As to payers, most only cover "medically necessary" procedures.⁴⁵ And payers negotiate (or sometimes flat out set) rates of reimbursement, which can affect provider incentive structures. But there is no central rationing of care in the U.S. system.⁴⁶ Even payers can only do so much to impact provider incentives.

The bottom line is that fee-for-service systems incentivize providers to suggest more care—and more expensive care—which drive up health costs in ways that do not necessarily improve quality. Many believe that this incentive

informed consent of their patients before initiating treatment.").

^{39.} This explanation admittedly focuses only on the purely economic drivers of physician actions. In reality, physicians may act altruistically or their behavior may be influenced by professional and social norms more generally.

^{40.} See, e.g., Hyman & Silver, supra note 34, at 1445 ("Individual patients frequently have difficulty assessing quality of care."); Matthew P. Manary et al., The Patient Experience and Health Outcomes, 368 New Eng. J. Med. 201 (2013); Wendy Netter Epstein, Nudging Patient Decision-Making, WASH. L. Rev. (forthcoming 2017).

^{41.} See Peter Zweifel & Willard G. Manning, Moral Hazard and Consumer Incentives in Health Care, in 1 HANDBOOK OF HEALTH ECONOMICS 409, 451–54 (Anthony J. Culyer & Joseph P. Newhouse eds., 2000); Elisabeth Rosenthal, Paying Till it Hurts – A Case Study in High Costs, N.Y. TIMES (Jun. 1, 2013), http://www.nytimes.com/2013/06/02/health/colonoscopies-explain-why-us-leads-the-world-in-health-expenditures.html [https://perma.cc/69DR-3MSA]. With the consumer-based, health-care movement urging more patient out-of-pocket expenditures, however, this may be changing. See also Wendy Netter Epstein, Price Transparency and Incomplete Contracts in Health Care (forthcoming).

^{42.} The payer foots the bill for the rest. Rosenthal, *supra* note 41 ("Patients with insurance pay a tiny fraction of the bill, providing scant disincentive for spending."). A typical PPO plan costs the consumer twenty percent coinsurance.

^{43.} Rosenthal, supra note 41.

^{44.} Epstein, *supra* note 40; *see also* Candeub, *supra* note 19 at 47 n.9 ("The physician-induced-demand hypothesis posits that physicians take advantage of patients' ignorance by recommending treatment that they may not need, thus 'inducing' demand for medical services.") (citing Rune J. Sørensen & Jostein Grytten, *Competition and Supplier-Induced Demand in a Health Care System with Fixed Fees*, 8 HEALTH ECON, 497, 497 (1999)).

^{45.} See What Part B Covers, supra note 25; Linda A. Bergthold, Medical Necessity: Do We Need It?, 14 HEALTH AFF. 180, 188 (1995).

^{46.} See Peter Singer, Why We Must Ration Health Care, N.Y. TIMES (Jul. 15, 2009), http://www.nytimes.com/2009/07/19/magazine/19healthcare-t.html [https://perma.cc/ZF7F-47YY] (comparing the United States' lack of rationing with central rationing in Great Britain).

structure has at least in part created the overtreatment problem we face in the United States.⁴⁷ In fact, unnecessary tests and procedures not only increase cost,⁴⁸ but may also harm patients.⁴⁹

Policymakers and lawmakers have, in recent years, turned their focus to addressing this incentive mismatch. Health-care costs in the United States are unbearably high, while key indicators of quality are disappointingly low when compared to peer nations. Although most health economists agree that a combination of factors is to blame, the incentive mismatch encourages overtreatment, which drives up costs and does not necessarily improve quality. 51

Many view this problem as low-hanging fruit that can be solved by aligning the incentives of providers⁵² with those of payers and patients.⁵³ The next subpart discusses the incentive-compensation model in health care.

C. The Health Industry's Incentive-Pay Solution

Linking payment with desired results has been touted by members of Congress as the panacea for health care that can save the United States \$700 billion a year, while simultaneously improving quality.⁵⁴ The following explains

^{47.} See, e.g., Gawande, supra note 14; Peter R. Orszag, Health Costs Are the Real Deficit Threat, WALL St. J. (May 15, 2009, 12:01 AM), http://www.wsj.com/articles/SB124234365947221489 [https://perma.cc/EAX2-UBPD].

^{48.} Aaron L. Schwartz et al., *Measuring Low-Value Care in Medicare*, 174 JAMA INTERNAL MED. 1067 (July 2014).

^{49.} Gawande, supra note 14.

^{50. 155} Cong. Rec. S11132-05 (daily ed. Nov. 5, 2009) (statement of Sen. Hagan) ("[T]he United States spends \$2.3 trillion each year on health care – the most per capita of all industrialized nations. Yet we still have higher infant mortality and lower life expectancy than many of the other industrialized nations."). Some have argued that health-care costs more in the U.S. because we are a wealthier country and are buying better quality, but data should disabuse us of that notion. See Candeub, supra note 19 at 51 (2011) ("There is little to no data linking total health care expenditures with positive health care outcomes.").

^{51.} See, e.g., The High Costs of Health Care, N.Y. TIMES (Nov. 25, 2007), http://www.nytimes.com/2007/11/25/opinion/25sun1.html [https://perma.cc/D48J-T2VY] (detailing various causes of the high cost-low quality health-care problem); Julie Appleby, Seven Factors Driving Up Your Health Care Costs, KAISER HEALTH NEWS (Oct. 24, 2012), http://khn.org/news/health-care-costs [https://perma.cc/749T-C2AN] (describing the roles providers and consumers have in driving up health-care costs).

^{52.} The term "provider" has many definitions in the literature and in the statutes. Here, I define it as a person who delivers health-care services. For the most part, this will mean physicians, but particularly as I start to flesh out solutions in Part IV, I use the term more broadly to cover advanced practice practitioners, as well. See Part IV(B), infra. I do not mean "provider" to include hospitals and other such entities.

^{53.} See, e.g., Report of The National Commission on Physician Payment Reform, NAT'L COMMISSION ON PHYSICIAN PAYMENT REFORM 15 (2013), http://physicianpaymentcommission.org/wp-content/uploads/2013/03/physician_payment_report.pdf [https://perma.cc/9LB8-329V] [hereinafter Physician Payment Reform] (finding provider compensation as a main driver of healthcare costs and recommending a blended payment system to reduce costs).

^{54. 155} CONG. REC. S11132 (daily ed. Nov. 5, 2009) (statement of Sen. Hagan).

how incentive-based compensation is expected to work.

In the health context specifically, the typical pay-for-performance program provides a bonus to health-care providers (or hospitals or other medical entities)⁵⁵ if they meet or exceed agreed-upon metrics, although some are structured to penalize providers that fail to meet defined metrics.⁵⁶ Programs may also reward improvement in metrics over time.⁵⁷

Quality and performance measures differ by program, but generally fall into four categories: process, outcome, patient experience, or structure. Process metrics require providers to follow a predefined process to satisfy the metric, such as giving aspirin to heart-attack victims within a certain amount of time after the patient arrives in the emergency room. Outcome measures focus on results. Morbidity and mortality data are the classic examples. More recently, there has been a focus on defining more-specific outcome measures, such as reductions in hemoglobin A1c in diabetic patients. Patient experience measures the patients' perception of the care they receive and is usually collected by compiling the results of patient surveys. Finally, structure considers the inputs into health-care provision, from the facilities and equipment used in treatment, to the adoption of health information technology. Incentive pay in the health-care setting may be predicated on any one category of metrics or, more commonly, a combination of several.

The Institute of Medicine's (IOM) 2001 study on the quality of health care in the United States is generally credited for prompting the incentive-pay movement, both for government and private payers. The report defined the problem: "Health care harms patients too frequently and routinely fails to deliver its potential benefits. Indeed, between the health care that we now have and the health care that we could have lies not just a gap, but a chasm." It then suggested that one way to narrow that chasm was to "align[] payment policies with quality improvement." Health maintenance organizations (HMOs), which

^{55.} This Article focuses on financial incentives for providers, although the industry move to value-based compensation captures a much larger set of players that future work should address.

^{56.} Julia James, *Health Policy Brief: Pay-for-Performance*, HEALTH AFF. (Oct. 11, 2012), http://healthaffairs.org/healthpolicybriefs/brief_pdfs/healthpolicybrief_78.pdf [https://perma.cc/EAB6-HFH4].

^{57.} Id.

^{58.} *Id.* Hemoglobin A1c is "a common blood test used to diagnose type 1 and type 2 diabetes and then to gauge how well [an individual is] managing [his] diabetes.... The A1C test results reflects [the] average blood sugar level.... The higher [the] A1C level, the poorer [the] blood sugar control and the higher [the] risk of diabetes complications." *A1C Test Overview*, MAYO CLINIC (Jan. 7, 2016), http://www.mayoclinic.org/tests-procedures/a1c-test/home/ovc-20167930 [https://perma.cc/BLB5-7P2G].

^{59.} Crossing the Quality Chasm: A New Health System for the 21st Century, INST. OF MED. 1 (Mar. 2001), https://iom.nationalacademies.org/~/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf [https://perma.cc/AKA8-9LVQ].

^{60.} Id. at 6.

were suffering under the appearance that they cut cost at the sacrifice of quality, particularly heeded the call.

1. Early Experiments in Paying for Quality in Health Care

a. Health Maintenance Organizations

HMOs initially came about as an alternative to the traditional fee-for-service system, primarily designed to contain skyrocketing health-care costs. HMOs typically offered flat-fee payment (capitation). Salary holdbacks designed to ensure that physicians reduced costs were also common. If fee for service encouraged providers to bill for more volume, HMOs encouraged providers to offer the least service possible in order to maximize provider profits.

By most accounts, capitation successfully incentivized providers to reduce costs to payers relative to the fee-for-service model.⁶⁴ The problem is that insufficient attention was paid to quality.⁶⁵ Market wide, this made HMOs fall out of favor with patients who came to associate them with rationing care.⁶⁶

Following the IOM report, many HMOs, some of which had already been experimenting with pay for performance, quickly jumped on board the incentive-pay movement. At the state level, California HMOs were early adopters. In early 2000, the Integrated Healthcare Association was formed to establish a statewide set of key measures on which health plans could base incentive

^{61.} See, e.g., Arnold J. Rosoff, The Federal HMO Assistance Act: Helping Hand or Hurdle?, 13 AM. Bus. L.J., 137, 137–39; see also Jennifer Evans & Jaclyn Schiff, A Timeline of Kennedy's Health Care Achievements and Disappointments, Kaiser Health News (Sept. 17, 2010), http://khn.org/news/kennedy-health-care-timeline [https://perma.cc/3RNE-9RZP].

^{62.} Capitation Models, HEALTH CARE INCENTIVES IMPROVEMENT INST., http://www.hci3.org/thought-leadership/why-incentives-matter/capitation/capitation-models [https://perma.cc/3YXY-23WP].

^{63.} HMOs held back a percentage of physician salary. At the end of the year, if treatment costs were within target ranges, the HMO would pay out the physician the hold back amount, but if costs exceeded targets, the HMO would retain the holdback amount. See, e.g., Barry R. Furrow, Managed Care Organizations and Patient Injury: Rethinking Liability, 31 GA. L. REV. 419 (1997).

^{64.} See, e.g., Harold Miller, From Volume to Value: Better Ways to Pay for Health Care, 28 HEALTH AFF. 1418 (2009), http://content.healthaffairs.org/content/28/5/1418.full.pdf [https://perma.cc/SH8U-GL9W].

^{65.} Id. There was some early experimentation with accounting for quality in pay. For instance, in 1987, U.S. Healthcare introduced quality-based compensation for primary care physicians and created the Quality Care Compensation System (QCCS). Nicholas Hanchak et al., U.S. Healthcare's Quality-Based Compensation Model, 17 HEALTH CARE FINANCING REV. 143 (1996).

^{66.} Richard Friedenberg, *Health Care Rationing: Every Physician's Dilemma*, 217 RADIOLOGY 626 (2000).

^{67.} See Meredith B. Rosenthal et al., Pay for Performance in Commercial HMOs, 355 NEW ENG. J. MED. 1895 (2006).

^{68.} Integrated Healthcare Association, Advancing Quality Through Collaboration: The California Pay for Performance Program, 3 IND. HEALTH L. REV. 455, 457–59 (2006).

payments.⁶⁹ Since then, California health plans have done just that. Blue Cross Blue Shield of Massachusetts is doing something similar with their Alternative Quality Contract (AQC).⁷⁰ HMO-level use of incentive pay has also been spurred by a couple of programs with larger scope, such as the Leapfrog Group,⁷¹ and Bridges to Excellence.⁷²

In 2005, a nationwide study of commercial HMOs found that more than half were using incentive-pay programs in their contracts with providers.⁷³ The most common metrics used were process-oriented metrics (e.g., use of mammography, asthma medication, etc.). Measures of patient satisfaction were also popular.

HMOs were a logical site of first experimentation because they required beneficiaries to select a primary-care physician, who could then be responsible for the overall quality (and quantity) of care the patient received.⁷⁴ HMOs were also more motivated than other delivery models to respond to criticisms about quality.⁷⁵

b. Early Government Experiments

The IOM report also prompted the government to experiment with incentive pay. In the Medicare context, the Medicare Physician Group Practice (PGP) Demonstration was the primary pilot program. It began in April 2005, and was designed to be a hybrid between fee-for-service and capitation models in the sense that physician groups were initially paid on a fee-for-service basis, but were eligible for bonuses equal to the percentage of savings in Medicare expenditures that the physician groups generated for their patients.⁷⁶ CMS

^{69.} Id. at 455-56 (2006).

^{70.} James, *supra* note 56. Other examples of private initiatives include Humana's Provider Quality Rewards program, United Healthcare's program in Illinois, Blue Cross Blue Shield of Minnesota's provider contracts, and HealthPartners programs in the upper Midwest. Adria Schmedthorst, *Commercial Payers and Value-Based Reimbursement*, Go PRACTICE BLOG (Mar. 30, 2016), http://gopractice.kareo.com/article/commercial-payers-and-value-based-reimbursement [https://perma.cc/7BHV-M3GX].

^{71.} The Leapfrog Group is a nationwide group of health-care purchasers (employers) that encourages public reporting of health-care quality and outcomes and rewarding doctors and hospitals for improving quality and cost metrics. In 2005, it initiated a hospital-focused program that tied improvement in five clinical areas to financial incentives. Robert S. Galvin et al., *Has the Leapfrog Group Had an Impact on the Health Care Market*, 24 HEALTH AFF. 228, 229–30 (2005).

^{72.} Bridges to Excellence is a multi-state, multi-employer organization that operates reward programs created to encourage improvements in the quality of care. *Bridges to Excellence*, HEALTH CARE INCENTIVES IMPROVEMENT INSTITUTE, http://www.hci3.org/programs-efforts/bridges-to-excellence [https://perma.cc/NZ7E-NFKZ].

^{73.} Rosenthal et al., supra note 67 at 1895.

^{74.} Id. at 1901 ("Several characteristics of HMOs were associated with the use of pay for performance, including . . . role of the PCP").

^{75.} Neelam K. Sekhri, *Managed Care: The US Experience*, 78 WHO BULLETIN 830, 830, 838–39 (2000) (noting managed health care faced much backlash in response to limited provider compensation, rationed care, and subpar quality of care).

^{76.} Physician Group Practice Transition Demonstration, CTRS. MEDICARE & MEDICAID SERVS.

calculated savings by comparison with the expenditures of a local "control" group not participating in the demonstration project. In addition, physician groups were eligible to retain a higher percentage of savings if they demonstrated strong performance on certain quality metrics. The pilot ran from 2005 through 2010, with the addition of a transition demonstration that ran from January 2011 through December 2012.⁷⁷ By 2010, the participating physician groups reached "benchmark performance on at least 30 of the 32" quality metrics.⁷⁸ Further, the physician groups "received performance payments totaling \$29.4 million as their share of the \$36.2 million of [the] savings generated."

This early government experimentation fueled the desire to implement incentive compensation in a more global and systematic manner.

2. The Affordable Care Act's Commitment to Incentive-Based Compensation

Despite the contentious political debates that surrounded and continue to surround the Affordable Care Act (ACA), there was strong bipartisan support for a key category of reform reflected in the bill: restructuring the Medicare delivery system by tying financial incentives to performance.⁸⁰ The Institute of Medicine: has estimated that the United States could save \$750 billion a year by changing

⁽Oct. 20, 2016), https://innovation.cms.gov/initiatives/physician-group-practice-transition [https://perma.cc/T5K3-24F8]; Wallack & Tompkins, *supra* note 36. This pilot was an early experiment in what later became the Medicare Shared Savings Program. *Shared Savings Program*, CTRS MEDICARE & MEDICAID SERVS. (Sept. 15, 2016), https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/index.html [https://perma.cc/GJF7-NB7Y].

^{77.} At the state level, Medicaid also did some early experimentation with incentive-based provider payments. A study published in 2007 by the Commonwealth Fund surveyed state Medicaid programs and found that over half of all states were using programs that relied on incentive-based compensation in at least some respect. See Kathryn Kuhmerker & Thomas Hartman, Pay-for-Performance in State Medicaid Programs: A Survey of State Medicaid Directors and Programs, COMMONWEALTH FUND (2007), http://www.commonwealthfund.org/~/media/files/publications/fund-report/2007/apr/pay-for-performance-in-state-medicaid-programs—a-survey-of-state-medicaid-directors-and-programs/1018_kuhmerker_payforperformance_state_medicaid_progs_v2.pdf

[[]https://perma.cc/JTK7-TEU8]. The final results of the Medicare Physician Group Practice Demonstration can be found at Evaluation of the Medicare Physician Group Practice Demonstration Final Report, CTRS. MEDICARE & MEDICAID (Sept. 2012), https://innovation.cms.gov/Files/Reports/PGPFinalreport.pdf [https://perma.cc/4TU3-FY7M] [hereinafter Physician Group Practice].

^{78.} Medicare Physician Group Practice Demonstration: Physician Groups Continue to Improve Quality and Generate Savings Under Medicare Physician Pay-for-Performance Demonstration, CTRS MEDICARE & MEDICAID 5 (July 2011), https://innovation.cms.gov/Files/fact-sheet/PGP-Fact-Sheet.pdf [https://perma.cc/T36K-3HZ2] [hereinafter PGP Demonstration]; see also Physician Group Practice, supra note 77, at 141 ("Given these findings, we believe the observed differences (i.e., larger improvements by the PGPs) were beyond random chance, and that the Demonstration had a positive effects on the quality of care delivered by the participating PGPs.").

^{79.} PGP Demonstration, supra note 78 at 5.

^{80.} Candeub, supra note 19 at 54.

the provider compensation approach. ⁸¹ By some measures, the ACA includes forty five different provisions aimed at reforming health-care delivery to either improve the quality and/or the efficiency of health care in some way. ⁸² Common amongst all of these new ACA initiatives, however, is the measurement of quality by attainment of process or outcome goals and cost savings, and the provision of a financial reward based on those metrics. What differs is the target, mechanism of administration, size of the incentive, and measures used to determine payments. ⁸³ The three largest initiatives are: (1) the establishment of a Shared Savings Program to benefit Accountable Care Organizations; (2) the new incentive-based compensation model for physicians (and hospitals); and (3) a pilot program to test bundled payments, among other initiatives.

a. Accountable Care Organizations

Of all the provisions aimed at reforming the delivery model by aligning incentives, Accountable Care Organizations (ACOs) have received the most attention. Section 3022 of the ACA requires the Secretary to establish a Medicare Shared Savings Program under which eligible doctors, hospitals, and other

^{81.} See Synopsis and Overview, INST. OF MED., The Healthcare Imperative: Lowering Costs and Improving Outcomes 2 (Pierre L. Yong et al. eds., 2011); see also 159 Cong. Rec. S16057 (daily ed. Jul. 13, 2013) (statement of Sen. Whitehouse) ("The President's Council of Economic Advisers has estimated that we could save approximately \$700 billion... The Institute of Medicine took a look at the same question. They put the savings number at \$750 billion."); Candeub, supra note 19 at 46–47 ("The belief that health care provision is wracked with inefficiency motivated... The Patient Protection and Affordable Care Act... and The Health Care and Education Reconciliation Act... with the White House acknowledging the elimination of this \$700 billion waste as a chief goal.").

^{82.} See, e.g., Pay for Performance, U.S. HEALTH POLICY GATEWAY (Dana Beezely-Smith ed., 2015), http://ushealthpolicygateway.com/payer-trade-groups/qualitysatisfaction/quality-improvement/general-approaches/pay-for-performance [ttps://perma.cc/CF6M-H7TC]. This does not include, for instance, the recent enactment of the Medicare Access and CHIP Reauthorization Act of 2015 and its expansion of value-based payment systems for providers. See Pub. L. No. 114-10, 129 Stat. 87 (codified in scattered sections of 42 U.S.C.). For a comprehensive summary of MACRA, see JIM HAHN & KIRSTIN B. BLOM, CONG. RESEARCH SERV., R43962, THE MEDICARE ACCESS AND CHIP REAUTHORIZATION ACT OF 2015 (2015).

^{83.} See, e.g., Ateev Mehrotra et al., Using the Lessons of Behavioral Economics to Design More Effective Pay-for-Performance Programs, 16 Am. J. Managed Care 497 (2010); Brian M. Stecher et al., Toward a Culture of Consequences: Performance-Based Accountability Systems for Public Services, RAND CORP. (2010), http://www.rand.org/content/dam/rand/pubs/monographs/2010/RAND_MG1019.pdf [https://perma.cc/7YVP-LWAP].

^{84.} These are three of the major provisions, but overall, the ACA, by some counts, reflects these goals in 45 different provisions. *Major Affordable Care Act Delivery and Payment Reforms*, AM. PUB. HEALTH ASS'N (Oct. 2013), https://www.apha.org/~/media/files/pdf/topics/aca/delivery_reforms_table_apha_oct2013.ashx [https://perma.cc/QQ33-HTJA]; *see also* Candeub, *supra* note 19 at 51 (2011). These mechanisms span many actors in the health-care system. In the text, the main focus is on the incentives at the provider level, although because some of the programs are collaboration based, it is not possible to entirely isolate the providers from other players.

providers receive financial bonuses relating to the cost savings they achieve for Medicare, assuming certain predefined quality metrics are also met. To participate in the Shared Savings Program, eligible entities must create or participate in an ACO. An ACO is a network of care providers committed to improving quality and reducing cost through coordination of efforts. Rather than individual specialists treating one patient without collaboration (thus duplicating tests and procedures, and lacking a cohesive view of the entire patient), ACOs deliver integrated care enabled by shared medical records and other coordination. In theory, ACOs avoid duplication of services and prevent medical errors. By giving providers who have at least some control over cost and quality of care a bonus for cost and quality metrics improvement (and in some cases a penalty for failing to meet goals), the ACO model aligns provider incentives with governmental priorities.

Both cost savings and quality metrics play a part in determining ACO compensation. First, CMS sets a benchmark of average Medicare expenditures, taking into account a projected growth rate in expenses. CMS also sets a list of quality metrics and associated benchmarks. The thirty-three measures span four-quality domains: (1) Patient/Caregiver Experience; (2) Care Coordination/Patient Safety; (3) Preventive Health; and (4) At-Risk Population. Seven measures are assessed from survey data, three are calculated via claims, one is calculated from Medicare and Medicaid Electronic Health Record (EHR) Incentive Program data, and twenty two are collected by reporting mechanisms.

ACOs receive points on a sliding scale based on level of performance relative to the benchmarks. For instance, ACOs must report on certain preventive health measures administered to patients, such as immunizations for influenza and mammography screenings. ACOs must also report outcome measures for patients with various illnesses. For example, for patients with diabetes, ACOs must document control of Hemoglobin A1c, and for patients with hypertension, ACOs must report on patient blood pressure. ACOs that do well on these measures can earn a Physician Quality Reporting System (PQRS) incentive.

The quality metrics differentiate ACOs from HMOs and, in theory, prevent

^{85.} Patient Protection and Affordable Care Act (PPACA) § 3022, 42 U.S.C. § 1395jjj (2012); see infra note 89 for further information on the quality metrics.

^{86.} See 42 C.F.R. § 425 (2016).

^{87.} Finalized Changes to the Medicare Shared Savings Program Regulations, CTRS. MEDICARE & MEDICAID SERVS. (June 4, 2015), https://www.cms.gov/Newsroom/MediaReleaseDatabase/Factsheets/2015-Fact-sheets-items/2015-06-04.html [https://perma.cc/9E63-K9SH] [hereinafter CMS Medicare Shared Savings Fact Sheet].

^{88.} Id.

^{89.} Quality Measures and Performance Standards, CTRS. MEDICARE & MEDICAID SERVS., https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Quality_Measures_Standards.html [https://perma.cc/48DE-S7CD].

^{90.} Id.

ACOs from saving money by rationing necessary care. 91 Ultimately, CMS compares actual expenditures at term end to the benchmark, and then factors in performance on the quality metrics to assess shared savings (or potential shared losses).

According to CMS, ACOs serve nearly nine million Americans with Medicare, and Medicare is continuing to aggressively expand the program. ⁹² In January 2015, the Department of Health and Human Services (HHS) publicly announced a goal of tying fifty percent of payments to alternative payment models, such as ACOs, by the end of 2018. ⁹³

b. Incentive-Based Compensation for Physicians

The ACA also changes the method of physician payment through the Physician Value-Based Payment Modifier.⁹⁴ The program applies to traditional fee-for-service Medicare reimbursement where physicians are currently paid according to a fee schedule. The modifier adjusts fees paid to physicians using data reported on quality and resource use. In other words, physician payments are modified to reflect the *value* of care they provide.⁹⁵ It is intended to work in the same manner as traditional incentive pay: the government pays physicians more

^{91.} Whether this distinction will ultimately play out as intended, however, is a matter of continuing debate. Consider, for instance, recent findings of implicit rationing in centralized health systems such as the Veterans Health Administration and the National Health Service. See, e.g., Nancy M. Schlichting et al., Commission on Care: Final Report, Commission on Care [Jun. 30, 2016), https://commissiononcare.sites.usa.gov/files/2016/07/Commission-on-Care Final-Report_063016_FOR-WEB.pdf [https://perma.cc/VT8U-728V]; Richard Vize, Rationing Care is a Fact of Life for the NHS, GUARDIAN (Apr. 24, 2015), https://www.theguardian.com/healthcare-network/2015/apr/24/rationing-care-fact-of-life-nhs [https://perma.cc/LG5B-BBAH].

^{92.} See S. Lawrence Kocot & Ross White, Medicare ACOs: Incremental Progress, But Performance Varies, HEALTH AFF.: BLOG (Sept. 21, 2016), http://healthaffairs.org/blog/2016/09/21/medicare-acosincremental-progress-but-performance-varies [https://perma.cc/N4VR-W94Z] ("[N]early 9 million Medicare beneficiaries [are] attributed to the Medicare ACO programs . . . "). This number has steadily increased from 7.8 million in 2015, see David Muhlestein, Growth and Dispersion of Accountable Care Organizations in 2015, HEALTH AFF.: BLOG (Mar. 31, http://healthaffairs.org/blog/2015/03/31/growth-and-dispersion-of-accountable-care-organizationsin-2015-2 [https://perma.cc/2TDK-NQQS], and 5.6 million in 2014, see Press Release, Ctrs. for Medicard and Medicare Servs., Medicare ACOs Continue to Succeed in Improving Care, Lowering Cost Growth (Nov. 11, 2015), https://www.cms.gov/Newsroom/MediaReleaseDatabase/Factsheets/2014-Fact-sheets-items/2014-11-10.html [https://perma.cc/9N3A-EYHL].

^{93.} Press Release, U.S. Dept. of Health & Human Servs., Better, Smarter, Healthier: In Historic Announcement, HHS Sets Clear Goals and Timeline for Shifting Medicare Reimbursements from Volume to Value (Jan. 26, 2015), http://www.hhs.gov/about/news/2015/01/26/better-smarter-healthier-in-historic-announcement-hhs-sets-clear-goals-and-timeline-for-shifting-medicare-reimbursements-from-volume-to-value.html [https://perma.cc/6JVT-GSAA]. It is unclear whether the Trump Administration will still seek to satisfy this goal.

^{94. 42} U.S.C. § 1395w-4 (2012).

^{95.} Medicare FFS Physician Feedback Program/Value-Based Payment Modifier, CTRS. MEDICARE & MEDICAID SERVS., https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/index.html [https://perma.cc/7PHX-YJJC].

if physicians do what the government wants them to do. 96

The program started by focusing on measures of clinical processes and results of patient-satisfaction surveys, but over time has come to rely more heavily on outcome measures, such as mortality rates, rather than measures of process compliance.⁹⁷

This new adjustment was first applied in 2015 to group practices with one hundred or more eligible professionals, using quality reporting data from 2013. The program will be scaled up to apply to all physicians by 2018. The program is budget neutral for the government; therefore, some physicians will see their pay increase while others will see it decrease. 99

c. Bundled Payments

Finally, Section 3023 of the ACA establishes a five-year program to test bundled payments. Bundled payments mean that rather than paying per procedure or per test, reimbursement will be based on the expected costs for an entire episode of care (e.g., a single illness or course of treatment). The payment arrangement includes both cost and quality components to assess value provided for the episode of care. The idea is, if a predefined sum of money will be awarded for patient care and total reimbursement cannot be increased by ordering more tests or procedures, providers will think hard about whether that extra test is likely to yield valuable information before ordering it and will coordinate their efforts to avoid costly and unnecessary duplication.

A number of models are currently being piloted. 102 Recently, Secretary of

^{96.} Section 3001 of the ACA establishes the Hospital (In-Patient) Value-Based Purchasing Program, which works based on a similar mechanism. See 42 U.S.C. § 1395ww(o)(1)(A) (2012).

^{97.} See id. (explaining that CMS adjusts payments to hospitals based on how well a hospital performs based on four domains, and how much the hospital improves on those domains).

^{98.} Initially the program was intended to apply to physicians by 2017, see Value-Based Payment Modifier and the Physician Feedback Program, CTRS. MEDICARE & MEDICAID SERVS. (Nov. 1, 2011), https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2011-Fact-sheets-items/2011-11-01-6.html [https://perma.cc/23PV-SVEE], but now it will apply to physicians by 2018, see Value-Based Payment Modifier, CTRS. MEDICARE & MEDICAID SERVS., https://www.cms.gov/medicare-fee-for-service-

payment/physicianfeedbackprogram/valuebasedpaymentmodifier.html [https://perma.cc/4L2R-CQE6].

^{99.} See Summary of 2015 Physician Value-based Payment Modifier Policies, CTRS. MEDICARE & MEDICAID SERVS. (2015), https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/CY2015ValueModifierPolicies.pdf [https://perma.cc/B3L7-NMYY].

^{100. 42} U.S.C. § 1395cc-4 (2012).

^{101.} Bundled Payments for Care Improvement Initiative, CTRS. MEDICARE & MEDICAID SERVS. (Sept. 30, 2013), https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2013-Fact-sheets-items/2013-01-31.html [https://perma.cc/SC5E-45BJ].

^{102.} See, e.g., National Pilot Program on Payment Bundling, 42 U.S.C. § 1395cc-4 (2012); Bundled Payments for Care Improvement Initiative (BPCI) Fact Sheet, CTRS. MEDICARE & MEDICAID SERVS. (Aug. 13, 2015), https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-

Health and Human Services Sylvia M. Burwell announced a pilot of bundled payments for hip- and knee-replacement procedures. The Secretary stated:

By focusing on episodes of care, rather than a piecemeal system, hospitals and physicians have an incentive to work together to deliver more effective and efficient care. This model will incentivize providing patients with the right care the first time and finding better ways to help them recover successfully. 103

The financial incentive in this model flows directly to the hospital and not the physician, although physician behavior is intended to be targeted as well. 104

The next Part discusses why these new approaches really indicate a shift in contract drafting strategy and surveys the relevant literature.

II. THE EFFECTS OF CONTRACT DRAFTING STRATEGIES ON PARTY PERFORMANCE

For decades, scholars across disciplines have studied the effects of contracting strategies on party performance. Because the shift from fee-for-service to incentive compensation is a shift in contract-drafting strategy, this literature yields important, yet understudied, lessons for the health industry.

sheets/2015-Fact-sheets-items/2015-08-13-2.html [https://perma.cc/99Q8-2XCZ]; Comprehensive Care for Joint Replacement (CJR) Program, 42 C.F.R. § 510.1; Oncology Care Model, CTRS. MEDICARE & MEDICAID SERVS. (Jan. 6, 2017), https://innovation.cms.gov/initiatives/oncology-care [https://perma.cc/B7N3-NFKN].

103. Press Release, U.S. Dept. of Health & Human Servs., CMS Proposes Major Initiative for Hip and Knee Replacements (July 9, 2015), http://www.hhs.gov/about/news/2015/07/09/cmsproposes-major-initiative-for-hip-and-knee-replacements.html [https://perma.cc/DRV4-3YW9]; see also Press Release, Ctrs. for Medicaid & Medicare Servs., Medicare's Delivery System Reform Initiatives Achieve Significant Savings and Quality Improvements - Off to a Strong Start (Jan. 30, https://www.cms.gov/Newsroom/MediaReleaseDatabase/Press-Releases/2014-Pressreleases-items/2014-01-30.html [https://perma.cc/TR9J-N5FJ]. For a review of the four models of bundled payments under the Bundled Payments for Care Initiative, see Bundled Payments for Improvement Initiative (BPCI),CTRS. MEDICARE & MEDICAID https://innovation.cms.gov/initiatives/bundled-payments [https://perma.cc/QZ72-FLL8] [hereinafter BCPI].

104. With increasing numbers of physicians being employed by hospitals, the question is whether hospitals are passing incentives down to physicians. A thorough review of that question is outside the scope of this paper, but there is at least some evidence that the trend is for hospitals to structure physician employment contracts to have both a salary portion and an incentive-based portion, such that ultimately both the hospital itself and the individual physicians have financial incentives to provide higher-quality medical care. See, e.g., Gerard F. Anderson et al., Medicare Payment Reform: Aligning Incentives for Better Care, COMMONWEALTH FUND (June 2015), http://www.commonwealthfund.org/publications/issue-briefs/2015/jun/medicare-payment-reformaligning-incentives [https://perma.cc/2QAL-4BFP].

A. History and Background on the Incomplete-Contracts Literature

Historically, contracts were thought to exist on a spectrum ranging from less complete to more complete. At one end of the spectrum was a perfectly complete contingent contract specifying the rights and duties of all parties in every possible state of the world. At the other end of the spectrum was a rather vague agreement that might be so indefinite as not to be enforceable by a court. 106

The literature on contract-drafting strategy initially focused on the choice to draft a relatively more-complete or a relatively less-complete contract. ¹⁰⁷ But scholarly attention eventually turned to the question of the impact of contract form on party performance. In other words, once the choice to draft a rathermore-complete or a rather-less-complete contract has been made, does that choice affect the success of the deal?

Law and economics scholars posited that less-complete contracts would be more likely to result in litigation because failure to give adequate guidance to the parties about their duties and obligations would be more likely to lead to the breakdown of a deal. A less-complete contract would tend to yield opportunistic behavior. On the other hand, more-complete contracts were thought to be less likely to result in litigation because the parties were clear in their contractual obligations. Decause the parties were clear in their contractual obligations.

In recent decades, there have been two major shifts in this conversation. The first shift grew out of work in the behavioral sciences. The law and economics account of incomplete contracts assumed parties acted both rationally and selfishly. But experiments started to show that individual behavior often deviated from these predictions. In a quest to understand these behavioral anomalies, a much broader literature that built upon the law and economics model, but that also considered the impact of these new findings, began to emerge.

In particular, this work acknowledges that drafting choices can affect both an

^{105.} An entirely complete contract is merely a theoretical construct. No contract could ever be entirely complete. See, e.g., Robert E. Scott, A Theory of Self-Enforcing Indefinite Agreements, 103 COLUM. L. REV. 1641, 1641 (2003).

^{106.} See id. at 1643-644 (describing how courts dismiss claims of breach due to a contract's indefiniteness).

^{107.} See Oliver Williamson, Assessing Contract, 1 J.L. Econ. & Org. 177, 197 (1985) (analyzing possible solutions for limiting litigation in the face of incomplete contracts); see also Ronald Dye, Costly Contract Contingencies, 26 Int'l Econ. Rev. 233 (1985) (discussing the conflict between costs and benefits regarding completeness in contracts).

^{108.} See, e.g., Richard A. Posner, The Law and Economics of Contract Interpretation, 83 TEX. L. REV. 1581 (2005) (discussing the potential costs of litigation arising from an incomplete contract).

^{109.} Id.

^{110.} See, e.g., Daniel Kahneman & Amos Tversky, Prospect Theory: An Analysis of Decision Under Risk, 47 Econometrica 263 (1979); Amos Tversky & Daniel Kahneman, The Framing of Decisions and the Psychology of Choice, 211 Science 453 (1981); Richard Thaler, Toward a Positive Theory of Consumer Choice, 1 J. Econ. Behav. & Org. 39 (1980).

agent's compliance and the agent's motivation.¹¹¹ Compliance describes the desire for an agent to execute the precise task that the principal has defined. Compliance requires that the agent understand the task the principal is asking the agent to undertake (cognition), and has the ability to do the work.¹¹² Motivation, on the other hand, describes how much effort the agent puts into the task. A talented agent may not need to try very hard to achieve compliance. But in many circumstances, the principal might want to get more than mere compliance from the agent. The principal might want to get the best possible performance that goes above and beyond the minimum requirements of the contract.

The second shift reflected the realization that contracts are not as one dimensional as the spectrum from less complete to more complete had suggested. Rather, there are many dimensions in which a contract may be "complete" or "incomplete," and those different dimensions may have differing impacts on party performance. 113

For instance, a contract may define the agent's required tasks and performance goals in either a more-specific way or a more-vague way. A more "complete" contract may include regular reporting or monitoring requirements. Or a less "complete" contract may require no reporting and no monitoring at all. A third dimension of contract completeness concerns the use of financial incentives. Financial incentives often go hand-in-hand with task specification and

^{111.} Many scholars have differentiated between compliance and motivational or performance effects in this area, but a forthcoming article by Constantine Boussalis and colleagues does a particularly good job surveying the literature using this framework. See Constantine Boussalis et al., An Experimental Analysis of the Effect of Specificity on Compliance and Performance, REG & GOVERNANCE (forthcoming 2017) (manuscript at 1, 3), https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2708193_code2338814.pdf?abstractid= 2539190 [https://perma.cc/AH8C-55P3]; see also Epstein, supra note 11, at 309; Erik A. Mooi & Mrinal Ghosh, Contract Specificity and its Performance Implications, 74 J. MARKETING 105, 106 (2010) (noting specification leads agents to focus on particular tasks); Gerard H. Seijts & Gary P. Latham, The Effect of Distal Learning, Outcome, and Proximal Goals on a Moderately Complex Task, 22 J. ORGANIZATIONAL BEHAV. 291, 302, 304 (2001) (finding specific, challenging goals make agents desire to perform better and exert higher levels of effort).

^{112.} Ray Worthy Campbell, *The End of Law Schools: Legal Education in the Era of Legal Service Businesses*, 85 Miss. L.J. 1, 50 (2016) ("[C]ompliance requires an understanding of the legal requirements imposed on corporations").

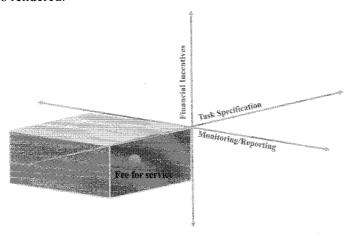
^{113.} See, e.g., George S. Geis, An Empirical Examination of Business Outsourcing Transactions, 96 VA. L. REV. 241, 256 (2010) ("It is important, therefore, to go beyond any aggregate measure of complexity and to look more carefully at specific terms, structures, and features in a micro-analytical manner.").

^{114.} See Robert E. Scott & George G. Triantis, Anticipating Litigation in Contract Design, 115 YALE L.J. 814, 818 (2006) (discussing the value of using vague terms for contract conditions); Posner, supra note 108, at 1582-83 (examining the costs and benefits of using specific terms in contracts).

^{115.} The decision to include monitoring or reporting requirements might actually impact party performance differently. Reporting requirements, for instance, may convey more trust of the agent than monitoring if the reporting is self reporting and the monitoring is third-party monitoring. However, I treat them as having similar effect here because the purpose is essentially the same.

monitoring—for instance, a contract may specify goals, require reporting on the goals, and award funds for the achievement of the goals. But contracts could also include provisions for awarding discretionary bonuses not necessarily tied to specific tasks. 116

In the health-care sector, the move from fee for service to pay for performance is a move along the contract-completeness spectrum. The fee-for-service approach, relatively speaking, did not specify tasks in detail, did not make significant use of monitoring or reporting, and did not utilize financial incentives. Payers did little to define desired goals or outcomes or even processes in which providers should engage. And in general, assuming the services provided fell within reimbursable categories, payers promised to pay for the services rendered. 118



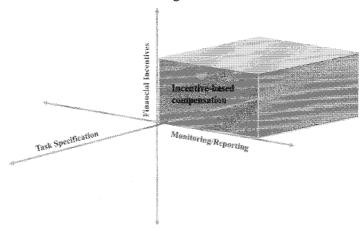
Incentive-based compensation is, in many ways, the opposite, requiring

^{116.} These are not the only three aspects of contract completeness worth separately considering. Empiricists have suggested many other ways to classify contract drafting strategies. See, e.g., George S. Geis, An Empirical Examination of Business Outsourcing Transactions, 96 VA. L. REV. 241, 256 (2010). But these three aspects of contract completeness are the most salient for present purposes.

^{117.} For instance, a sample fee-for-service contract between a provider and CMS is a single-page agreement. It states simply that the provider agrees to request "direct Part B payment from the Medicare program" and that the payment will be the "full charge for the service covered under Part B" other than the applicable deductible and coinsurance. See, e.g., Medicare Participating Physician or Supplier Agreemen, CTRS. FOR MEDICAID AND MEDICARE SERVS. (Apr. 2010), https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/downloads/cms460.pdf [https://perma.cc/KK5H-TLG6].

^{118.} Medicare does set the reimbursable rates for procedures and only covers what it considers "medically necessary." And there are other preconditions to reimbursement, including state laws that dictate what services a particular type of practitioner is licensed to provide and both national and local coverage decisions made as to whether a particular item or service is covered under Medicare's rules. See Learning What Medicare Covers and How Much You Pay, CTRS. FOR MEDICAID AND MEDICARE SERVS. (Dec. 2016), https://www.medicare.gov/pubs/pdf/11472-Learn-What-Medicare-Covers.pdf [https://perma.cc/B95A-P83P].

much more detailed contract drafting. ¹¹⁹ The payer must provide detailed criteria to which a physician must adhere and must define the financial implications of meeting, exceeding, or falling short of those metrics. If fee-for-service contracts tend to be less specific in task definition and not make use of reporting and financial incentives (i.e., payers agree to pay regardless of performance), incentive-based compensation is a move toward the other end of the contract-drafting spectrum: higher on task specificity and a greater use of contractual control mechanisms, such as monitoring and financial incentives.



One of the main insights of this Article is to suggest the literature that studies the effect of contract-drafting strategy on party performance should inform this new strategy in the health-care industry. 120

B. The Literature on Compliance and Motivation

Contract-drafting choices can influence party performance in ways that are more complicated than the early literature—more complete is better and less complete is bad—suggested.

In an ideal world, contracts would prompt both agent compliance and agent motivation. The question is: Can a shift from a less complete to a more complete contract prompt both, or is there a competing effect between the two? The next subpart considers what effects specifying tasks, using monitoring and reporting mechanisms, and employing financial incentives have on both compliance and motivation. There is a lot of nuance in the literature, but one major takeaway is that the more complex the task and the more the principal wants to prompt agent

^{119.} See Stout, supra note 19, at 536 (2014).

^{120.} For a significant portion of the population, what the contract actually says matters to performance. See, e.g., Ernst Fehr et al., Reciprocity as a Contract Enforcement Device: Experimental Evidence, 65 Econometrica 833, 833 (1997); Eileen Chou et al., The Devil Is in the Details: Less Specific Contracts Promote Feelings of Autonomy, Intrinsic Motivation and Work Persistence 5 (unpublished manuscript) (on file with author).

creativity, innovation, and top effort level, the less well the incentive compensation model will fit.

1. Task Specification

Many studies have shown that task specification aids cognition, particularly in the obvious way that people better understand what they are supposed to do when the task is spelled out in some detail. Consider the task of putting together the Ultimate Collector's Millennium Falcon (Star Wars) LEGO® Set, which has over 10,000 pieces. ¹²¹ While a user may understand the overall goal of the project without the detailed instructions, to build a LEGO® Millennium Falcon, the detailed instructions certainly help the average user understand how best to get from point A (a box full of 10,000 individual Legos) to point B (the completed Millennium Falcon). ¹²²

In the contract context specifically, studies have demonstrated that drafting more-detailed clauses that clearly specify responsibilities reduces the likelihood of agent misunderstanding. ¹²³ And, in general, there a line of research in both the goal-setting literature, specifically, and the behavioral literature, more broadly, that seems to suggest clear instructions are superior to less-specific ones for the purpose of directing an agent's understanding of a project and ensuring compliance with dictates.

Complexity, however, is an important variable. Research has also shown that specification of very complex tasks actually creates a perception of vagueness and leads to under-compliance. 124

Other studies also document less-positive effects of specificity on cognition and compliance. For instance, task specificity can cause agents to focus on the specified details to the detriment of other, less-highly-specified elements of the

^{121.} LEGO, http://shop.lego.com/en-US/Millennium-Falcon-75105 [https://perma.cc/9F4S-DCYD].

^{122.} This assumes that there is a well-tested path to success. If the goal were to prompt users to find the best way to build the Millennium Falcon with the provided pieces, detailed instructions may negatively impact creativity. See, e.g., Christina E. Shalley et al., The Effects of Personal and Contextual Characteristics on Creativity: Where Should We Go from Here?, 30 J. MGMT. 933 (2004) (synthesizing studies on prompting creativity).

^{123.} See, e.g., Mooi & Ghosh, supra note 111 at 108 (Mar. 2010) (arguing greater specificity in procurement contracts for IT hardware/software decreases the likelihood for misunderstanding between the parties); Kenneth H. Wathne & Jan B. Heide, Opportunism in Interfirm Relationships: Forms, Outcomes, and Solutions, 64 J. Marketing 36, 39 (2000) (noting, in general, lack of contractual specificity enables a party to evade contractual obligations).

^{124.} See Jérôme Barthélemy & Bertrand V. Quélin, Complexity of Outsourcing Contracts and Ex Post Transaction Costs: An Empirical Investigation, 43 J. MGMT. STUDIES 1775, 1790 (2006) (noting the high complexity of outsourcing contracts makes performance specification, verification, and monitoring difficult); Ehud Guttel & Alon Harel. Uncertainty Revisited: Legal Prediction and Legal Postdiction, 107 MICH. L. REV. 467, 486 (2008) ("Different levels of specificity [of legal norms], even when producing the same level of uncertainty, can inhibit or encourage behavior.").

task. In other words, task specification directs attention away from understanding the ultimate goal of the work. 125

Studies of the checklist approach demonstrate this point. Checklists are used to ensure compliance with a specified set of tasks, and have proven effective at improving performance. This is particularly true in situations such as an airplane cockpit where pilots have to remember many details under pressure. However, checklists have also been shown to impede cognition and decrease project-level compliance because they make tasks automatic. Checklists discourage thinking, which in some situations can be a detriment to performance.

In sum, task specification enables cognition and prompts compliance where the task is relatively straightforward and the agent has the ability to execute the task without the need to do much learning. Specification is less likely to prompt compliance for complex tasks that require understanding of the overall task rather than piecemeal tasks, or tasks that require individual thinking and creativity.

Whether or not task specification is good for agent motivation is an area of much study and some dispute in the literature. Some studies have found that specific, challenging goals make agents desire to perform better and exert higher levels of effort. In other words, task specification can make agents rise to the

^{125.} See Boussalis et al., supra note 111, at 6 (noting that setting goals based on the volume of task units completed may decrease creativity); see also Gideon Parchomovsky & Alex Stein, Catalogs, 115 COLUM. L. REV. 165 (2015) (discussing the use of vague standards coupled with specific examples, a so-called "catalog approach").

^{126.} See, e.g., Robert Gibbons & Rebecca Henderson, What Do Managers Do? Exploring Persistent Performance Differences Among Seemingly Similar Enterprises, in HANDBOOK OF ORGANIZATIONAL ECONOMICS 680–731 (R. Gibbons and J. Roberts eds., 2013).

^{127.} Bridgette M. Hales & Peter J. Pronovost, *The Checklist: A Tool for Error Management and Performance Improvement*, 21 J. CRITICAL CARE 231, 234 (2006) ("Checklist 'fatigue," whereby the overwhelming number of available or required checklists becomes a hindrance rather than an aid, is becoming a more common theme in areas that have been heavily targeted with this type of intervention. If overused... checklists can act to impede the quality and speed of service delivery. Checklist users may also become dependent on these tools in their practice, which can interfere both with their professional judgment and the objectivity of their decision-making process.").

^{128.} Some scholars suggest less task specification increases agent motivation. See, e.g., Gibbons & Henderson, supra note 126; see also George G. Triantis, The Efficiency of Vague Contract Terms: A Response to the Schwartz-Scott Theory of U.C.C. Article 2, 62 La. L. Rev. 1065, 1072 (2002) (noting that conditioning reward on specified tasks distorts efforts to those tasks and away from ones the agent might otherwise have undertaken). Meanwhile, other scholars argue task specification increases agent motivation. See Emily C. Haisley & Roberto A. Weber, Self-Serving Interpretations of Ambiguity in Other-Regarding Behavior, 68 GAMES & ECON. BEHAV. 614–25 (2010); Seijts & Latham, supra note 111.

^{129.} Gary P. Latham & Edwin A. Locke, Goal Setting – A Motivational Technique that Works, 8 Organizational Dynamics 68, 75 (1979) ("Specific, challenging goals lead to better performance than do easy or vague goals"). But see Eileen Chou et al., The Control-Motivation Dilemma: Contract Specificity Undermines Intrinsic Motivation, Persistence, and Creativity 3–4 (2014) (unpublished manuscript) (on file with author) (demonstrating through experiment that less-specific contracts prompt intrinsic motivation in the employment context).

occasion. 130

Specification may also be beneficial for motivating agent performance because task specification could reduce the likelihood that agents would use ambiguity to justify questionable behavior that does not benefit the principal. For instance, several studies have shown that agents are more likely to act dishonestly or immorally in the face of contractual ambiguity than in the face of specificity. 132

But this is an area where there seems to be conflict in the literature because many studies have also shown that task specificity can signal mistrust and can crowd out an agent's intrinsic desire to perform well. ¹³³ In the contract setting, for these reasons, more-specific contracts can lead to poorer agent performance than less-specific ones. ¹³⁴

Task specification has also been shown to decrease motivation particularly where the task is complex and learning is still ongoing.¹³⁵ There is therefore now much support for the idea that task specification decreases effort level because it crowds out intrinsic motivation.¹³⁶

^{130.} See Seijts & Latham, supra note 111.

^{131.} See Haisley & Weber, supra note 128.

^{132.} See Yuval Feldman & Doron Teichman, Are All Contractual Obligations Created Equal?, 100 GEO. L.J. 5, 12 (2011) (discussing a study where participants playing the role of painters who must choose between using a generic paint of inferior quality or a better quality paint were more likely to choose the lower quality paint if they were told that the lower quality paint may or may not "be deemed a breach of a contractual obligation to use 'reasonable' materials"); see also Yuval Feldman & Alon Harel, Social Norms, Self-Interest and Ambiguity of Legal Norms: An Experimental Analysis of the Rule vs. Standard Dilemma, 4 REV. L. & ECON. 81 (2008) (discussing a study documenting relationship between self-interest and legal ambiguity); Nina Mazar & Dan Ariely, Dishonesty in Everyday Life and Its Policy Implications, 25 J. Pub. Pol'y & MARKETING 117, 121–22 (2006) (analyzing the role of self-deception in dishonest behavior).

^{133.} In a famous study testing the motivational effects of implicit versus explicit contracts, Fehr and Gächter found that principals who chose the explicit contract lost on average nine tokens per contract, compared to a profit of 26 tokens per implicit contract and that the difference was attributable to effort levels. Ernst Fehr & Simon Gächter, Fairness and Retaliation: The Economics of Reciprocity, 14 J. ECON. PERSP. 159, 170 (2000); see also Ernst Fehr et al., supra note 120, at 833.

^{134.} Chou et al., supra note 120 at 5; see also Laura Poppo & Todd Zenger, Do Formal Contracts and Relational Governance Function as Substitutes or Complements?, 23 STRATEGIC MGMT. J. 707, 711–12 (2000) (discussing the importance of lack of specificity to increase in trust); Armin Falk & Michael Kosfeld, The Hidden Costs of Control, 96 Am. Econ. Rev. 1611, 1612–13 (2006) ("[A]gents are averse to being controlled, and consequently lower their performance if the principal implements a more complete contract.").

^{135.} See Lisa D. Ordóñez et al., Goals Gone Wild: The Side Effects of Over-Prescribing Goal Setting, (Harvard Bus. Sch., Working Paper No. 09-083), http://www.hbs.edu/faculty/Publication%20Files/09-083.pdf [https://perma.cc/7DYR-WQR5]; Nicholas Argyres et al., Complementarity and Evolution of Contractual Provisions: An Empirical Study of IT Services Contracts, 18 ORG. Sci. 3 (2007).

^{136.} See sources cited supra notes 120, 122, 124, 134.

2. Monitoring/Reporting Mechanisms

In addition to specifying tasks, many contracts also require that an agent report on certain metrics or subject themselves to external monitoring of performance.¹³⁷ The primary purpose of reporting requirements and monitoring rights is to prevent opportunistic behavior and ensure compliance. But there is some controversy about how well it works, and what effect such terms have on motivation.

First, requiring reporting or monitoring forces agents to focus on contractual requirements. This is particularly true if reporting is likely to be linked to either a positive or negative consequence. Agents react to and are likely to comply in the case of measurable metrics. This result is not surprising. Agents are more likely to do what is asked of them if they know the principal will be watching.

Yet as with task specification, reporting requirements also focus an agent's attention on certain aspects of performance that are designated important because reporting is required or because it is being monitored. This leaves less cognitive attention to be focused on other aspects of the contract where reporting and monitoring are not pertinent. 142

A related negative implication of reporting and monitoring requirements is that it can prompt gaming behavior. Agents who know they will be evaluated based on reported metrics tend to act dishonestly to maximize those metrics that will in turn better their individual position (financially or otherwise).¹⁴³

But perhaps one of the biggest concerns about monitoring is its implications for motivation. ¹⁴⁴ Monitoring and reporting mechanisms should, in theory, cause

^{137.} See, e.g., Lisa Bernstein, Beyond Relational Contracts: Social Capital and Network Governance in Procurement Contracts, 7 J. LEGAL ANALYSIS 561, 581–96 (discussing use of Supplier Scorecards to report compliance with relatively objective performance metrics).

^{138.} See Boussalis et al., supra note 111, at 7 ("[P]eople's intrinsic motivation to perform well is crowded out by the relationship between performance, measurement, and payment. Therefore, specificity combined with monitoring that focuses only on given measurable components (the letter of the law) seems to produce a straightforward effect of crowding out intrinsic motivation and decreasing overall performance.").

^{139.} See Edward P. Lazear, The Power of Incentives, 90 Am. Econ. Rev. 410–14 (2000) (arguing that when compensation is tied too closely to performance, employees are likely to focus on the specific tasks tied to compensation, potentially declining to pursue other beneficial options).

^{140.} Id.

^{141.} Boussalis et al., *supra* note 111, at 7 (noting that agents focus more attention on measurable metrics).

^{142.} Boussalis et al., *supra* note 111, at 7 ("According to these theories, over time, the accuracy of measurement decreases as people concentrate their effort strictly on the measured components of an activity, resulting in a decline in the overall quality of their performance.").

^{143.} See, e.g., Gunter G. Shulze & Bjorn Frank, Deterrence Versus Intrinsic Motivation: Experimental Evidence of the Determinants of Corruptibility, 4 ECON. GOVERNANCE 143 (2003).

^{144.} David Dickinson & Marie-Claire Villeval, *Does Monitoring Decrease*Work Effort? The Complementarity Between Agency and Crowding-Out Theories, 63 GAMES &

agents to exert high levels of effort. In the absence of monitoring or reporting, the concern is that agents will not exert effort because they lack an effective way to find out how they performed.

Some studies confirm the theory in practice.¹⁴⁵ For instance, a 2008 study found that monitoring results in agents increasing their level of effort.¹⁴⁶ However, the same study reports that when monitoring exceeds a certain threshold, motivation begins to be crowded out and agents actually exert less effort.¹⁴⁷

Just as specification can signal distrust and crowd out intrinsic motivation, it seems so can monitoring. Or at least that monitoring can negatively impact the relationship between principal and agent. That is what a 2013 review of the literature determined. Essentially, an agent is more motivated by having discretion in a task, reading discretion to mean that the principal is conveying an element of trust. An agent reacts less well to the suggestion that the principal must be watching to ensure good performance. There is similar evidence about the function of financial incentives, which is discussed below.

3. Financial Incentives

Financial incentives are specifically designed to direct focus and improve effort level. In the law and economics account, individuals will focus their attention on tasks that are directly tied to compensation and will exert high levels of effort if that effort will be financially rewarded. The efficacy of financial incentives is hotly debated in the literature. Some studies suggest that they work to prompt compliance. This tends to be most frequently the case for tasks that

ECON. BEHAV. 56, 57 (2008) (noting that monitoring has the potential to decrease agent motivation).

^{145.} See, e.g., Armen A. Alchian & Harold Demsetz, Production, Information Costs, and Economic Organization, 62 AM. ECON. REV. 777 (1972) (developing theory); Eugene F. Fama & Michael C. Jensen, Separation of Ownership and Control, 26 J. LAW & ECON 301 (1983) (developing theory).

^{146.} Dickinson & Villeval, supra note 144.

^{147.} Id.

^{148.} Margit Osterloh & Bruno Frey, *Motivation Governance*, in HANDBOOK OF ECONOMIC ORGANIZATION: INTEGRATING ECONOMIC AND ORGANIZATION THEORY 26–40 (Anna Grandori ed., 2013).

^{149.} See Boussalis et al., supra note 111, at 4 ("According to the rational choice prediction, the agent focuses most of his work on the tasks for which he can be given an incentive").

^{150.} See, e.g., Geoffrey B. Sprinkle, The Effect of Incentive Contracts on Learning and Performance, 75 ACCT. Rev. 299, 299 (2000); see also Antonio Guiffrida & David J. Torgerson, Should We Pay the Patient? Review of Financial Incentives to Enhance Patient Compliance, 315 BRITISH MED. J. 703, 706 (Sept. 20, 1997) (noting "the use of some form of financial inducement increases compliance" with patient treatment plans); Joseph E. Murphy, Using Incentives in Your Compliance and Ethics Program, Soc'y Corp. Compliance & Ethics 15 (Nov. 2011) ("Incentives can work as effective tools for a business that wishes to promote compliance by employing concrete actions." (quoting Corporate Compliance Programs, CANADA BUREAU COMPETITION 21 (Sept. 27, 2010), http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/cb-bulletin-corp-

are fairly mechanical and require little cognitive effort, ¹⁵¹ for instance, replacing windshields. ¹⁵²

However, studies also find that compliance may be temporary.¹⁵³ And there is the same concern as with reporting requirements that incentives can prompt cheating or untoward manipulation.¹⁵⁴

There is also a large body of literature suggesting that agents are actually less compliant and exert less effort when subject to incentives. A number of famous experiments suggest the reason for this is that incentives crowd out intrinsic motivation.¹⁵⁵ For instance, college students will spontaneously work on challenging puzzles, but lose interest once they are paid a fee to solve them.¹⁵⁶ Fewer people will donate blood once an incentive payment is added.¹⁵⁷ A randomized controlled trial at an Israeli day care found that where fines were

compliance-e.pdf/\$FILE/cb-bulletin-corp-compliance-e.pdf [https://perma.cc/D7BV-PDAD])); Lois Synder & Richard L. Neubauer, *Pay-for-Performance Principles That Promote Patient-Centered Care: An Ethics Manifesto*, 147 Annals Internal Med. 792, 793 (2007) ("Pay-for-performance and other programs that create strong incentives for high-quality care set up a potential conflict between this duty [to care for patients] and the competing interest of trying to comply with a performance measure-whether the measure is a priority for that patient or not.").

- 151. Dan Ariely et al., Large Stakes and Big Mistakes (Fed. Res. Bank of Boston, Working Paper No. 05-11, 2005) (demonstrating pay-for-performance works for mechanical tasks, but if cognitive skills are required, it leads to poorer performance); see Daniel H. Pink, Drive: The Surprising Truth About What Motivates Us 103 (2009).
- 152. See Matthew Wynia, The Risks of Rewards in Health Care: How Pay-for-Performance Could Threaten, or Bolster, Medical Professionalism, 24 J. GEN. INTERNAL MED. 884, 885 (2009).
- 153. See Pat Redmond et al., Can Incentives for Healthy Behavior Improve Health and Hold Down Medicaid Costs?, CTR. ON BUDGET & POL'Y PRIORITIES (June 2007), http://www.cbpp.org/archiveSite/6-1-07health.pdf [https://perma.cc/NQ44-FNZK]; Drake Baer, Why Incentives Don't Actually Motivate People to do Better Work, Bus. Insider (Apr. 1, 2014), http://www.businessinsider.com/why-incentives-dont-actually-make-people-do-better-work-2014-3 [https://perma.cc/ST36-FRFA]; Alfie Kohn, Why Incentive Plans Cannot Work, Harv. Bus. Rev., Sept.-Oct. 1993, https://hbr.org/1993/09/why-incentive-plans-cannot-work [https://perma.cc/2F7J-GRFX]; Dyann M. Matson et al., The Impact of Incentives and Competitions on Participation and Quit Rates in Worksite Smoking Cessation Programs, 7 Am. J. Health Promotion 270, 270–80 (1993).
- 154. Adam Grant & Jitendra Singh, *The Problem with Financial Incentives and What to Do About It*, Knowledge @ Wharton (Mar. 30, 2011), http://knowledge.wharton.upenn.edu/article/the-problem-with-financial-incentives-and-what-to-do-about-it [https://perma.cc/CZ4M-EJJ2] ("Incentives can enhance performance, but they don't guarantee that employees will earn them by following the most moral or ethical paths. . . . [W]hen people are rewarded for goal achievement, they are more likely to engage in unethical behavior, such as cheating.").
- 155. See Epstein, supra note 11, at 308-09 (explaining autonomy tends to boost motivation more than control, which signals distrust); see also Chou et al., supra note 120 at 5; Edward L. Deci et al., Facilitating Internalization: The Self-Determination Theory Perspective, 62 J. PERSONALITY 119, 122 (1994); Wendy S. Grolnick & Richard M. Ryan, Parent Styles Associated with Children's Self-Regulation and Competence in School, 81 J. EDUC. PSYCHOL. 143, 144 (1989); Richard M. Ryan & Edward L. Deci, Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being, 55 AM. PSYCHOLOGIST 68, 70 (2000).
 - 156. Edward Deci, supra note 11, at 114-15.
- 157. See Lorenz Goette et al., Prosocial Motivation and Blood Donations: A Survey of the Empirical Literature, 37 TRANSFUSION MED. & HEMOTHERAPY 149 (2010).

imposed for tardy retrieval of children, parents responded by increasing rates of late pick up (the opposite of the intended effect). The explanation was that absent a fine, parents felt a moral duty to retrieve their children on time. Once a fine was implemented, it turned into a market transaction: as long as parents were willing to pay the fee, it was acceptable to pick up their children late.

Context seems to matter. Intrinsic motivation is likely to be strongest in situations with a strong moral framing (such as donating blood) or ones that are cognitively challenging. In those situations, financial incentives seem to have the potential to be most harmful in crowding out that intrinsic motivation. ¹⁵⁹ When intrinsic motivation is not strong, incentives are more likely to work as economic theory predicts. This may also explain why incentives work well for more repetitive or rote tasks, which are not the type of work people tend to be intrinsically motivated to do in the first place.

But even this distinction is not entirely straightforward. For instance, in one study comparing flat-wage compensation contracts to incentive contracts in an experiment that required both exerting effort and learning over time—which should be intrinsically motivating—the subjects receiving incentive pay exerted higher levels of effort and learned more over the course of the experiment. ¹⁶⁰ The author theorized that "the incentive-based contract . . motivate[d] participants to implement the first-best strategy . . . and to use feedback to maximize the total expected performance." ¹⁶¹

C. Lessons About Highly Detailed Contracts That Use Reporting Mechanisms and Financial Incentives

Contract drafters use various techniques in an attempt to prompt compliance and motivation. While it would be ideal for a strategy to positively impact both, what the evidence suggests is that the relationship between these strategies is complex and, at times, competing.

For instance, there is solid evidence suggesting that task specification works best for delivering cognitive clarity and directing the agent's focus to particular tasks. ¹⁶² Task specification tends to work better to prompt compliance with easily defined tasks than it does to motivate agents to innovate or come up with creative

^{158.} See Uri Gneezy & Aldo Rustichini, A Fine is a Price, 29 J. LEGAL STUD. 1 (2000).

^{159.} See Edward Deci et al., A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation, 125 PSYCHOL. BULL. 627, 650-52 (1999); see also Bohnet et al., at 131-51 (finding incentive contracts decrease cooperation); Bruno S. Frey & Reto Jegen, Motivation Crowding Theory: A Survey of Empirical Evidence, 15 J. ECON. SURVS. 589, 589-612 (2001) (suggesting that monetary incentives are not as effective as reciprocity arrangements for providing motivation).

^{160.} See Sprinkle, supra note 150, at 310, 319-20.

^{161.} See id. at 302.

^{162.} See, e.g., Edwin A. Locke & Gary P. Latham, New Directions in Goal-Setting Theory, 15 CURRENT DIRECTIONS PSYCHOL. Sci. 265 (2006); Mark A. Mone & Christine E. Shalley, Effects Specificity on Change in Strategy and Performance Over Time, 8 Hum. Performance 243 (1995).

solutions to complex problems.¹⁶³ It comes with a risk of overly focusing on the specified metrics to the detriment of commitment to the success of the overall project, so specification seems to be best used in areas where this type of focus is less of a concern.¹⁶⁴ These areas likely overlap with the simple versus complicated divide. There is little risk of hyperfocus when the task is relatively straightforward in the first place.¹⁶⁵ There is more risk when the task is complicated and the principal needs the agent to comply with all aspects of the project, not just those that are highly specified.¹⁶⁶

Reporting and monitoring also tend to be the best fit for easier, compliance-based tasks. ¹⁶⁷ The risk with monitoring is that agents will view it as a signal of distrust and will exert lower effort in response. ¹⁶⁸ But if monitoring is used to ensure compliance—e.g., with a checklist—where there is little expectation of creativity, it can be useful and can be effective to deter opportunistic behavior. ¹⁶⁹

Financial incentives also seem to work best for compliance-oriented tasks rather than complex tasks that require creativity and consummate performance. ¹⁷⁰ But even as to simple tasks, the effect is not straightforward. Whether or not strong intrinsic or morality-based motivation exists in the first place seems to be an important determinant.

This nuance might help to explain why results of incentive-pay schemes in health care and in other industries have been so mixed. Incentive-based compensation is a contract-drafting strategy that employs task specification, reporting and monitoring, and the use of financial incentives. That approach is likely to be effective only in a relatively small subset of contexts. The next Part illustrates this point.

III. INCENTIVE BASED COMPENSATION: THE EVIDENCE SO FAR

Although incentive-based compensation is, relatively speaking, new to health care, it has long been employed in other industries, such as executive compensation, professional sports, and education. These three industries provide an interesting comparison to health care because despite some salient differences,

^{163.} See, e.g., Shalley et al., supra note 122.

^{164.} See Mone & Shalley, supra note 162; Samuel Bowles, Policies Designed for Self-Interested Citizens May Undermine 'The Moral Sentiments': Evidence from Economic Experiments, 320 SCIENCE 1605 (2008); Holstrom & Milgrom, supra note 10.

^{165.} Holstrom & Milgrom, supra note 10.

¹⁶⁶ Id

^{167.} *Id.*; see also MICHAEL DORFF, INDISPENSABLE AND OTHER MYTHS: WHY THE CEO PAY EXPERIMENT FAILED AND HOW TO FIX IT (2014) (discussing difficulties in motivating CEO-level employees with incentive pay).

^{168.} See, e.g., Falk & Kosfeld, supra note 134.

^{169.} See Dominique Demougin & Claude Fluet, Monitoring Versus Incentives, 45 EUROPEAN ECON. REV. 1741 (2001).

^{170.} This is one of the main arguments in Daniel Pink's book *Drive: The Surprising Truth About What Motivates Us* (2009).

in all three contexts, an agency problem motivates the use of performance incentives. A principal is concerned that a utility-maximizing agent will not act in the principal's best interests and that the agent has better information than the principal about the effort that the agent exerts. As such, the principal designs a compensation structure—implemented by contract—intended to provide the agent with incentives to act in the principal's best interests. In all three contexts, performance incentives are used in somewhat analogous ways to how they are used in health care. Additionally, all three contexts have seen some success with incentive compensation and have noted some areas for concern.

This Part argues that the experience with incentive pay in other industries is accurately predicted by the theoretical literature explained in Part II, where the most important takeaway was that the "complete" contracting mechanisms (task specification, monitoring, and financial incentives) are a better fit for easily measurable, compliance-oriented tasks than for tasks requiring the exercise of discretion and an agent's top performance.

A. Experience with Incentive Pay in Other Industries

1. Executive Compensation

The most studied use of incentive pay is in executive compensation. Before the advent of the modern corporation, businesses were owner run. The dairy farmer who sold his milk was also the one who cared for and milked the cows. The owner had all the incentive he needed to act in ways that would maximize the profitability of the enterprise. There was a direct link between owner performance and owner profit. But as businesses began to transition from owner run to manager run, agency problems and moral hazard arose. To solve the agency problem, different techniques were developed to align managerial incentives with those of the businesses they were entrusted to run. The earliest ones were the imposition of fiduciary duties, which were in many ways insufficient. Next came a market-based solution: linking executive compensation to some measure of corporate profit or stock price.

^{171.} See Adolph Berle, Jr. & Gardiner Means, The Modern Corporation and Private Property (1932).

^{172.} Lawrence E. Mitchell, *The Death of Fiduciary Duty in Close Corporations*, 138 U. PA. L. REV. 1675, 1675 (1990) ("[T]he law of corporations historically has attempted to provide a principled and coherent set of regulations to ensure those who hold power are accountable to those who are dependent upon its fair exercise.").

^{173.} David A. Hoffman, Self-Handicapping and Managers' Duty of Care, 42 WAKE FOREST L. REV. 803, 805 (2007) (noting corporate managers rarely face monetary damages for violations of fiduciary duties due to the business judgment rule, exculpation, and indemnification).

^{174.} See Linda J. Barris, The Overcompensation Problem: A Collective Approach to Controlling Executive Pay, 68 Ind. L.J. 59, 61 (1992); Sharon Hannes, Compensating for Executive Compensation: The Case for Gatekeeper Incentive Pay, 98 Cal. L. Rev. 385, 437 (2010); Michael Jensen & Kevin J. Murphy, CEO Incentives—It's Not How Much You Pay, But How, Harv. Bus.

of incentive pay for executives argue that:

a well-designed compensation scheme can make up for the fact that directors cannot monitor or evaluate many of their top executives' decisions. Such a well-designed scheme can substantially reduce agency costs, improve performance, and increase shareholder value. ¹⁷⁵

In the 1980s and 1990s—particularly after Michael Jensen and Kevin Murphy's influential article on the topic 176—executive compensation packages that included some element of performance pay proliferated. 177 Performance pay runs the gamut from short-term, formula-driven incentives (for example a CEO might receive a bonus tied to incremental profitability of the company) to long-term incentives that may look at performance over a three to five year period. And according to at least one survey by Stanford School of Business, "CEOs and directors believe that 75 percent of a CEO's compensation" in large U.S. companies is tied in some way to performance. 178

With notable exceptions, quantitative and qualitative empirical work suggests that performance pay for executives is an effective motivator. 179 Studies

REV., May-June 1990, at 138 (calling for executive incentive-based compensation).

^{175.} BEBCHUK & FRIED, *supra* note 28, at 19 (stating the theoretical argument, but then explaining why it does not work that way in practice).

^{176.} Jensen & Murphy, supra note 174.

^{177.} This was especially true for publicly traded companies without a controlling stockholder. But performance pay has also now been introduced at lower hierarchy levels. See Steven Kaplan & Josh Rauh, Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?, REV. FIN. STUD. (2007); Xavier Gabaix & Augustin Landier, Why Has CEO Pay Increased So Much?, 123 Q. J. Econ. 49 (2008).

^{178.} CEOs and Directors on Pay: 2016 Survey on CEO Compensation, STAN. GRADUATE SCH. BUS. 2 (2016), https://www.gsb.stanford.edu/sites/gsb/files/publication-pdf/cgri-survey-2016-ceocompensation 0.pdf [https://perma.cc/RJ2T-8Z4Z].

^{179.} Jensen & Murphy, supra note 174; Edward B. Rock, Adapting to the New Shareholder-Centric Reality, 161 U. PASL. REV. 1907, 1914 (2013) ("[F]ixed pay may lead managers to seek quiet lives, while performance pay can motivate managers."); Susan J. Stabile, Motivating Executives: Does Performance-Based Compensation Positively Affect Managerial Performance?, 2 U. PA. J. LAB. & EMP. L. 227, 229 (1999) ("Contingent compensation motivates executives and/or rewards them."); Randall S. Thomas, Should Directors Reduce Executive Pay?, 54 HASTINGS L.J. 437, 448 (2003) ("[I]ncentive pay can motivate workers to put forth their best efforts."); Michael C. Jensen & Kevin J. Murphy, Remuneration: Where We've Been, How We Got to Here, What are the Problems, and How to Fix Them (Euro. Corp. Governance Inst., Working Paper No. 44/2004, 2004), at 19 (July 12, 2004), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=561305 [https://perma.cc/5J93-3LD9] ("A well-designed remuneration package for executives... will accomplish three things: attract the right executives at the lowest cost; retain the right executives at the lowest cost . . . ; and motivate executives to take actions that create long-run shareholder value and avoid actions that destroy value."). But see Stout, supra note 19, at 536-37 (2014) ("[T]he ideology of incentives is being embraced . . . despite the fact that there is little or no empirical evidence to demonstrate it actually works"); James F. Reda, David M. Schmidt & Kimberly A. Glass, Study of 2013 Short- and Long-Term Incentive Design Criterion Among Top 200 S&P 500 Companies, ARTHUR J. GALLAGHER & Co. (2014), https://www.ajg.com/media/1420659/study-of-

have found that, particularly over short periods of time, incentive pay for executives can be correlated with an increase in corporate stock price. Scholars theorize that incentive compensation works particularly well to motivate executives in an industry where profit motivation is typically strong. Also, incentive-based compensation is easy to implement in executive pay because metrics such as profit and stock price are, relatively speaking, easy to measure and verify, at least compared with other options.

But the downsides of incentive pay for executives are also now well documented. Is Incentive pay causes executives to focus on the metrics to which compensation is tied, causing short-shrift to be given to other aspects of the business. Is Indeed, executives have been shown to manipulate the performance criteria in their favor, or game the system to maximize rewards. Incentive pay has also been shown to substitute motivation based on financial reward for the intrinsic motivation, or professional commitment to success, that had previously existed.

- 181. See Jensen & Meckling, Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure, 3 J. FIN. ECON. 305, 308–11 (Oct. 1976) (discussing confounding variables). 182. Id.
- 183. Bebchuk & Fried, supra note 28, at 19 (2004) (explaining that because executives tend to be risk-averse, performance based compensation is worth less to them).
- 184. Kristopher Yingling, Comment, Pay Ratio Disclosure: Another Failed Attempt to Curtail Executive Compensation, 18 U. PA. J. Bus. L. 203, 212–13 (2015) ("Incentive-based compensation . . . induced excessive short-term risks through its asymmetrical rewards. Because companies used certain metrics, like stock price, to determine CEO's performance, they greatly incentivized CEOs to expand those metrics to increase their own compensation.").
- 185. Bruno Frey & Margit Osterloh, Yes, Managers Should Be Paid Like Bureaucrats, 14 J. MGMT. INQUIRY 96, 97 (2005) (summarizing studies finding a connection between executive incentive-based pay and fraudulent activity).
- 186. Kohn, *supra* note 154, at 62 ("Few will be shocked by the news that extrinsic motivators are a poor substitute for genuine interest in one's job. What is far more surprising is that rewards, like punishment, may actually undermine the intrinsic motivation that results in optimal performance."); LUKAS HENGARTNER, EXPLAINING EXECUTIVE PAY: THE ROLES OF MANAGERIAL POWER AND COMPLEXITY 41 (2007).

²⁰¹³⁻short-and-long-term-incentive-design-criterion-among-top-200.pdf [https://perma.cc/KZ7B-FULG] (finding that where companies used total shareholder return as the incentive metric, stocks underperformed compared to companies using other benchmarks such as earnings-per-share based on generally accepted accounting principles).

^{180.} See Carola Frydman & Dirk Jenter, CEO Compensation, Rock Ctr. for Corp. Governance Working Paper No. 77, 20-22 (2010), http://papers.ssrn.com/sol3 Stanford Univ., /papers.cfm?abstract_id=1582232 [https://perma.cc/NS9S-34P4] (discussing multiple studies demonstrating a link between incentive pay and firm performance). But see Share and Share 1999). http://www.economist.com/node/230106 **ECONOMIST** (Aug. 7, [https://perma.cc/KZ5C-6MDY] ("[T]here is surprising little direct evidence that higher payperformance sensitivities lead to higher stock performance." (quoting Kevin Murphy, EXECUTIVE COMPENSATION, in A HANDBOOK OF LABOUR ECONOMICS (Orley Ashenfelter & David Card eds., 1998))); Michael J. Cooper et al., Performance for Pay? The Relationship Between CEO Incentive Compensation and Future Stock Price Performance 26 (Working Paper, Nov. 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1572085 [https://perma.cc/9G3F-PAMV] (finding a negative relation between CEO incentive compensation and firm stock price).

Worse, incentive pay can induce excessive risk taking and even fraudulent behavior. It is said to have contributed to some of the worst economic crises of the past thirty years, from the savings and loan crisis of the 1980s to the 2008 credit crisis spurred by subprime loans. This is in part because of the risk-taking behavior executives engaged in to maximize personal compensation under incentive-pay schemes. 189

2. Professional Sports

As in executive compensation, professional sports teams frequently employ methods of incentive-based compensation in contracts with their players to mitigate an agency problem.¹⁹⁰ Teams want to ensure that their players exert the highest possible effort levels. Players may not be motivated to exert *top* effort for any number of reasons. For instance, they may fear injury or less longevity in the sport if they do exert top effort, or perhaps they can earn their large salaries without the need to exert top effort.¹⁹¹ Information asymmetry is also a problem in that players know the effort they are exerting, but management, to an extent, does not.¹⁹²

The agency problem in this context is somewhat less severe, however, than in other contexts. For one, while a player best knows his own level of effort, effort level is to some extent publicly observable. ¹⁹³ Intrinsic motivation to perform well in professional sports and social norms to perform well and win games may also be somewhat stronger in the sports context than in other contexts. ¹⁹⁴ Still, sports teams use a number of different types of incentive pay to induce optimal level of effort, generally falling into two categories: team incentives and individual incentives. ¹⁹⁵

^{187.} See Stout, supra note 19, at 534 (noting that incentive pay has been statistically linked with "earning manipulations, accounting frauds, and excessive risk-taking.").

^{188.} See id.

^{189.} See William W. Bratton, Enron and the Dark Side of Shareholder Value, 76 Tul. L. Rev. 1275, 1327–28 (2003); Charles M. Yablon, Bonus Questions-Executive Compensation in the Era of Pay for Performance, 75 Notre Dame L. Rev. 271, 273 (1999).

^{190.} Daniel Faber, *The Evolution of Techniques for Negotiation of Sports Employment Contracts in the Era of the Agent*, 10 U. MIAMI ENT. & SPORTS L. REV. 165, 189–190 (1993) (describing performance bonuses in famous athletes' contracts).

^{191.} See Bernd Frick, Performance, Salaries, and Contract Length: Empirical Evidence from German Soccer, 6 INT'L J. SPORT FIN. 87 (2011) (describing the common view that players can vary performance before and after signing a new contract); see also Dean Tripp et al., Fear of Reinjury, Negative Affect, and Catastrophizing Predicting Return to Sport in Recreational Athletes With Anterior Cruciate Ligament Injuries at 1 Year Postsurgery, 52 REHABILITATION PSYCHOLOGY 74 (2007) (examining the effect the fear of re-injury has on an athlete's future performance).

^{192.} Kevin J. Stiroh, *Playing for Keeps: Pay and Performance in the NBA*, 45 ECON. INQUIRY 145, 148 (2007).

^{193.} Frick, *supra* note 191, at 90.

^{194.} Id.

^{195.} Mike Mondello & Joel Maxcy, The Impact of Salary Dispersion and Performance Bonuses

Team incentives provide bonuses for team-level achievements: winning games or winning intermediate or ultimate-level championships. ¹⁹⁶ They might also reward achievements such as total points scored, team rankings in different statistical categories, or the like. ¹⁹⁷

Individual incentives are also prevalent. Professional sports contracts, however, limit the type of measures that can form part of players' payment structure. Depending on the sport, there may be more emphasis on process measures rather than outcome measures. For example, contracts in Major League Baseball generally emphasize process (e.g., number of innings pitched) as opposed to outcome (e.g., number of home runs hit). But in football, statistical accomplishments (e.g., touchdown passes scored, yards rushed, etc.) can form the basis of the incentive pay. Other measures include physical-conditioning metrics (e.g., amount of weight lifted), playing time, and rankings compared to other players. The use of financial incentives in American professional sports leagues is extensive. For instance, in the National Football League, sixty-five to seventy-five percent of players receive payments based on individual accomplishments.

in NFL Organizations, 47 MGMT. DECISION 110, 115 (2009).

^{196.} Id.

^{197.} Id.; see also National Football League Collective Bargaining Agreement, NAT'L FOOTBALL LEAGUE & NAT'L FOOTBALL LEAGUE PLAYERS ASS'N, Art. 7 § 6 (Aug. 4, 2011), https://nflpaweb.blob.core.windows.net/media/Default/PDFs/General/2011_Final_CBA_Searchabl e_Bookmarked.pdf [https://perma.cc/7K52-CZ52] [hereinafter NFL Collective Bargaining].

^{198.} See Faber, supra note 190, at 189 ("The professional sports industry needed a flexible means of structuring contracts to pay athletes salaries that closely track performance. Sports law responded with incentive bonuses. . . . [P]itcher Bob Walk with the Pittsburg Pirates received] bonuses for innings pitched and pitching appearances.").

^{199.} *Id.* at 189–90 ("Running back Mike Rozier's 1990 contract with the Atlanta Falcons was structured [to provide Rozier] \$30,000 for rushing for 200 yards, \$30,000 for rushing for 400 yards, and \$40,000 for reaching 600 yards. Rozier gained 675 yards, thus earning \$100,000 in bonuses.").

^{200.} Mondello & Maxcy, supra note 195, at 115; see also NFL Collective Bargaining, supra note 197, at Art. 7 § 6 (noting allowable performance incentives).

^{201.} See Martin J. Greenberg, The Second Annual Sports Dollars & Sense Conference: A Symposium on Sports Industry Contracts and Negotiations: Drafting of Player Contracts and Clauses, 4 MARQ. SPORTS L.J. 51, 57 (1993) (discussing incentive clauses in professional sports contracts); Jeffery A. Smith, It's Your Move -No It's Not! The Application of Patent Law to Sports Moves, 70 U. Colo. L. Rev. 1051, 1085-86 (1999) (discussing incentive clauses in professional sports contracts such as being selected to the Pro Bowl and reaching predetermined levels of performance); Frederick Tung, Bankruptcy Symposium: The Future Claims Representative in Mass Tort Bankruptcy: A Preliminary Inquiry, 3 CHAP. L. Rev. 43, 66 (2000) ("Player contracts in professional sports... routinely contain bonus contingencies for exceptional performance based on objective measures."); Melissa Steedle Bogad, Note, Maybe Jerry Maguire Should Have Stuck With Law School: How the Sports Agent Responsibility And Trust Act Implements Lawyer-like Rules for Sports Agents, 27 CARDOZO L. Rev. 1889, 1903 (2006) (explaining Congressman Tom Osbourne urged Congress to adopt legislation regulating agents, in part, due to the huge financial incentives for athletes and agents in professional sports).

^{202.} Mondello & Maxcy, *supra* note 195, at 115 ("In the NFL, incentive bonuses now account for about 25 per cent of player compensation.").

Financial incentives are thought to work well in the sports context for a number of reasons. ²⁰³ First, athletic performance (if not effort level per se) can be objectively measured. ²⁰⁴ In professional sports, performance criteria are set by the league and are measured in a transparent and objective manner. ²⁰⁵

Second, although cooperation and team play are often necessary to success, many professional sports emphasize personal abilities.²⁰⁶ In this sense, financial incentives are well-suited to encourage individual effort.

Third, financial incentives in sports can be tied to short-term performance.²⁰⁷ As such, there is a closer temporal tie between effort and reward.

Some of the best evidence of the effects of incentive pay in sports come from the tournament context. There, results have shown a correlation between financial incentives and player performance.²⁰⁸ Indeed, the magnitude and differential between awards has received a lot of attention. In NASCAR racing, it seems that increasing the prize differential going to top finishers has the potential to increase overall driver performance.²⁰⁹

But the literature also documents some important challenges in the use of performance pay in sports. For one, in team sports like football and basketball, the statistics on which performance pay are based are only partially indicative of the effort level of an individual player. The appearance of individual performance also reflects the performance of teammates and of the opponent. But the use of performance also reflects the performance of teammates and of the opponent.

^{203.} Frick, *supra* note 191, at 90 (explaining how the objective data of professional sports makes it easy to attach incentives to reach particular milestones).

^{204.} Yehuda Baruch et al., *Performance-Related Pay in Chinese Professional Sports*, 15 INT. J. OF HUM. RESOURCE MGMT. 245 (2004).

^{205.} Id.; see Frick, supra note 191, at 90.

^{206.} Sherwin Rosen & Allen Sanderson, *Labour Markets in Professional Sports*, ECON. J., F47, F52 (2001) (discussing the financial incentives for individual athletes to seek a competitive advantage even in team sports).

^{207.} Id.

^{208.} Brian E. Becker & Mark A. Huselid, *The Incentive Effects of Tournament Compensation Systems*, 37 ADMIN. Sci. Q. 336, 342 (1992).

^{209.} Id.

^{210.} STANLEY COHEN, THE MAN IN THE CROWD: A FAN'S NOTES ON FOUR GENERATIONS OF NEW YORK BASEBALL 208 (2012) ("Individual records in other [sports besides baseball] require a measure of cooperation. Passing efficiency depends largely on the quality of the team's receivers, the protection afforded the quarterback, even the running game. . . . But when a batter steps into the batter's box he is all alone."); Roderick I. Swaab et al., The Too-Much-Talent Effect: Team Interdependence Determines When More Talent is Too Much or Not Enough, 25 PSYCHOL. SCI. 1581, 1582 (June 2014) (explaining basketball and football require a higher degree of task interdependence, meaning "team members [must] cooperate and work interactively to complete tasks," than baseball, which as a sport, has relatively low levels of interdependence, meaning "each individual's talent contributes additively to the team's outcome, and thus less coordination among team members is required").

^{211.} Mondello & Maxcy, *supra* note 195, at 115 (explaining performance bonuses are divided into team incentives, including winning games, total points scored, yards accumulated, and sacks registered, and individual incentives, including statistical accomplishments such as touchdowns scored, physical conditioning benchmarks, and rankings compared to other position players).

For instance, the number of yards a quarterback passes is dependent in large part on the quality of the receivers he passes to and the quality of the defenders.²¹² Thus, while metrics are objective and observable, they are not perfect.

Second, the use of financial incentives can promote risk-taking behavior and even cheating. The illegal use of steroids was a major problem in the 1990s and 2000s in Major League Baseball.²¹³ While it is hard to quantify the extent to which financial incentives encouraged steroid use rather than norms such as professional acclaim and fame, theorists have examined how financial incentives can bring out such behavior.²¹⁴ Incentive effects have been shown to promote risky behavior in other contexts, as well. For instance, larger prizes and a larger prize differential between top finishers and lower finishers have been shown to encourage more risk-taking in professional car racing.²¹⁵

In short, pay does motivate performance, and it is thought to work well because of ease of measurement. But the effect is complicated by other reasons to perform well, both intrinsic (i.e., drive to succeed, reputation) and extrinsic (i.e., potential for endorsements).

3. Education

Just as shareholders and professional sports teams experience difficulties in motivating their management and players respectively, schools face similar challenges in motivating teacher performance. In education, the use of performance pay is both prevalent and controversial. The most common example is the award of bonuses to teachers based on their students' performance on standardized tests. President George W. Bush's *No Child Left Behind* and

^{212.} STANLEY COHEN, THE MAN IN THE CROWD: A FAN'S NOTES ON FOUR GENERATIONS OF NEW YORK BASEBALL 208 (2012) ("Passing efficiency depends largely on the quality of the team's receivers, the protection afforded the quarterback, even the running game.").

^{213.} See The Steroids Era, ESPN (Dec. 5, 2012), http://espn.go.com/mlb/topics/_/page/the-steroids-era [https://perma.cc/P8EX-J4Y3].

^{214.} See, e.g., Tiffany D. Lipscomb, Note, Can Congress Squeeze the "Juice" Out of Professional Sports? The Constitutionality of Congressional Intervention into Professional Sports' Steroid Controversy, 69 Ohio St. L.J. 303, 317 (2008) ("Juiced' players typically perform better, generating more revenue for owners, which in turn generates higher salaries for players."); Lisa Pike Masteralexis, Drug Testing Provisions: An Examination of Disparities in Rules and Collective Bargaining Agreement Provisions, 40 New Eng. L. Rev. 775, 777 (2006) ("[P]layers are playing in an ultra-competitive environment where many, many players are striving for a limited number . . . [of positions]. Anything that will take a player over that hurdle . . . will be enticing, especially when one sees other players reaping substantial financial benefits, being rewarded by media, fans, and management."); Edward Rippey, Contractual Freedom over Substance-Related Issues in Major League Baseball, 1 Sports Law. J. 143, 159 (1994).

^{215.} Becker & Huselid, supra note 208, at 344.

^{216.} Donald Gratz, Special Topic: The Problem with Performance Pay, 67 EDUC. LEADERSHIP 76, 76 (2009) ("Education performance pay stretches back hundreds of years. In the mid-1800s, British schools and teachers were paid on the basis of the results of student examinations, for reasons much like today's.").

^{217.} Sanctions are also employed, but usually sanctions function to penalize low-performing

President Barack Obama's *Race to the Top*, both placed high stakes on standardized test scores.²¹⁸ Both linked student test scores to teacher evaluations and pay.²¹⁹

The theory in the education context is that offering bonuses based on student achievement will incentivize teachers to ensure that their students perform better. This example is somewhat different from the prior two because the incentive is not tied to individual performance directly, but to the performance of third parties that the teacher is expected to influence. In this way, education might be the closest analogy to health care, where patients are the relevant third party. Some studies have shown that there is a positive correlation between providing teachers with performance-based incentives and higher student achievement (expressed through higher test scores). Teachers exert higher effort levels when incentivized by pay tied to student test scores. And this effect seems to apply whether bonuses are awarded for positive performance or sanctions are threatened for negative performance.

But other studies find the opposite. One large scale study that offered incentives tied to students' test scores, graduation, and attendance rates that provided up to \$3,000 per teacher at high-needs New York City schools, found that "incentives . . . did not increase student achievement in any meaningful way. If anything, student achievement declined." In addition, a study in Tennessee that found that students of teachers offered up to \$15,000 in bonuses tied to

schools with removal of funds, not individual teachers. See generally Hanley Chiang, How Accountability Pressure on Failing Schools Affects Student Achievement, 93 J. Pub. Econ. 1045 (2009) (discussing the long term impact of penalties for poor performance on student test scores).

^{218.} No Child Left Behind Act (NCLBA) of 2001 § 1001, 20 U.S.C. § 6301 (2012); Joseph P. Viteritti, *The Federal Role in School Reform: Obama's "Race to the Top"*, 87 NOTRE DAME L. Rev. 2087, 2121 (2012) (outlining Race to the Top).

^{219.} See Viteritti, supra note 218 at 2108, 2110–11 (discussing teacher pay and evaluations based on student success); see also Valerie Strauss, How and Why Convicted Atlanta Teachers Cheated on Standardized Tests, WASH. POST (Apr. 1, 2015), https://www.washingtonpost.com/news/answer-sheet/wp/2015/04/01/how-and-why-convicted-atlanta-teachers-cheated-on-standardized-tests [https://perma.cc/FYS7-FD9B].

^{220.} See, e.g., David N. Figlio & Lawrence W. Kenny, Individual Teacher Incentives and Student Performance, 91 J. Pub. Econ. 901 (2007).

^{221.} See, e.g., David N. Figlio & Lawrence W. Kenny, supra note 221, at 903 ("We find a positive association between the use of individual teacher incentives and student achievement."); Victor Lavy, Performance Pay and Teacher's Effort, Productivity, and Grading Efforts, 99 AM. ECON. REV. 1979 (2009). http://www.aeaweb.org/articles.php?doi=10.1257/aer.99.5.1979 [https://perma.cc/752Q-FS2R].

^{222.} See, e.g., David N. Figlio & Lawrence W. Kenny, supra note 221 (concluding that one explanation for findings was that providing teachers with monetary incentives based on student test scores increases teacher effort).

^{223.} See, e.g., Chiang, supra note 217, at 1056 (noting that schools threatened with sanctions led to an increase in math scores). Teachers seem most able to affect test scores when they concentrate on basic skills that are relatively easy to teach, but more studies on this issue are necessary. Id.

^{224.} Fryer, supra note 220, at 377.

student improvement did not perform significantly better than their peers taught by teachers with standard compensation. ²²⁵

Although evidence is not conclusive, for those who report efficacy of performance pay, it is thought to work well because standardized tests provide an objective measure of student performance. But as in the other contexts, the measure is imperfect. Teachers may help students to improve test scores by improving familiarity with the format of the test. And students may acquire short-term knowledge sufficient to improve test scores that does not equate with retained knowledge and long-term learning. If the goal of education is the latter, improving the former is of limited value. Studies have shown that "teaching to the test," rather than teaching to educate, is a pervasive problem.

There are some additional well-documented challenges to utilizing performance pay to motivate teachers and some confounding variables to consider. First, when pay is linked to student test scores, teachers narrow their curriculum to focus on tested material at the sacrifice of other worthy areas. ²²⁹ In general, teachers invest more effort in tasks that receive the most weight in the performance measurement system. ²³⁰

Second, teachers have been documented to be less willing to work with high needs students when subject to performance pay.²³¹ Teachers tend to focus on

^{225.} Matthew G. Springer et al., *Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching*, NAT'L CTR. ON PERFORMANCE INCENTIVES (2010), https://my.vanderbilt.edu/performanceincentives/files/2012/09/Full-Report-Teacher-Pay-for-Performance-Experimental-Evidence-from-the-Project-on-Incentives-in-Teaching-20104.pdf [https://perma.cc/GZW8-GY5D].

^{226.} Steven Friedland, A Critical Inquiry into the Traditional Uses of Law School Evaluation, 23 PACE L. REV. 147, 156 (2002) ("[S]tandardized tests... provide an objective, reliable measure of the relevant skills being tested."); 2013 State Teacher Policy Yearbook: National Summary, NAT'L COUNCIL ON TEACHER QUALITY 10 (Jan. 2014), http://www.nctq.org/dmsView/2013_State_Teacher_Policy_Yearbook_National_Summary_NCTQ_Report.pdf [https://perma.cc/GK3T-BWVZ] (noting many states have tied student performance to teacher evaluation).

^{227.} See Eva L. Baker et al., Problems with the Use of Student Test Scores to Evaluate Teachers, ECON. POL'Y INST. 7 (Aug. 28, 2010), http://www.epi.org/files/page/-/pdf/bp278.pdf [https://perma.cc/3PA8-HZ23] ("[Standardized tests] are narrow measures of what students know and can do, relying largely on multiple-choice items that do not evaluate students' communication skills, depth of knowledge and understanding, or critical thinking and performance abilities.").

^{228.} See id. at 16–17; Brian A. Jacob & Steven D. Levitt, Catching Cheating Teachers: The Results of an Unusual Experiment in Implementing Theory, 2003 BROOKINGS-WHARTON PAPERS URB. Aff. 185 (describing the pervasive issue of "teaching to the test"); Craig D. Jerald, 'Teach to the Test'? Just Say No, CTR. FOR COMPREHENSIVE SCH. REFORM & IMPROVEMENT 1–2 (2006), http://files.eric.ed.gov/fulltext/ED494086.pdf [https://perma.cc/D89Q-EQN6] (describing the pervasiveness of "teaching to the test" and summarizing studies demonstrating poor generalization when the curriculum focuses on preparation for standardized tests).

^{229.} Jacob & Levitt, *supra* note 228, at 16 ("[A]n emphasis on test results for individual teachers exacerbates the well-documented incentives for teachers to focus on narrow test-taking skills, repetitive drill, and other undesirable instructional practices.").

^{230.} Id

^{231.} Charles Clotfelter et al., Do School Accountability Systems Make It More Difficult for Low-

students whose test scores can be improved with the least effort.

Third, when performance pay is utilized, studies have shown that teachers are less likely to collaborate. Also, "some argue that teacher incentives can decrease a teacher's intrinsic motivation or lead to harmful competition between teachers in what some believe to be a collaborative environment." 233

Finally, just as incentive pay in executive compensation encouraged creative accounting to maximize individual compensation, and in sports may have encouraged players to illegally use steroids, financial incentives in education seem to also encourage cheating on the metrics. A recent, well-publicized example in Atlanta illustrates the point. In 2009, after the media started to question how Atlanta public school students had substantially improved test scores, the state investigated. ²³⁴ It uncovered a wide range of cheating behavior by both teachers and administrators, who changed student answers and misreported test scores. ²³⁵ There are other documented examples of teachers and administrators doctoring test scores to obtain personal bonuses, ²³⁶ but it is unknown to what extent such practices are employed nationwide. ²³⁷

4. Experience in Other Industries Confirms Many Predictions of the Contracts Literature

The experience in these three industries is illuminating for a number of reasons. First, it seems to bear out many of the predictions of the literature. While financial incentives do seem to motivate, at least according to some studies, they tend to do so best where easy-to-measure goals are closely associated with the

Performing Schools to Attract and Retain High-Quality Teachers?, 23 J. Pol'y Analysis & Mgmt. 251 (2004) (describing a study on the effects of North Carolina's accountability system on low-performing schools that found that low-performing schools perform even worse because quality teachers are more reluctant to teach there); Jacob & Levitt, supra note 228, at 16 ("Within a school, teachers will have incentives to avoid working with such students likely to pull down their teacher effectiveness scores.").

- 232. See Baker et al., supra note 227, at 8.
- 233. Fryer, supra note 220, at 374 (citation omitted).
- 234. Strauss, supra note 219.
- 235. Nearly 180 employees were accused of wrongdoing in an effort to collect bonuses, or in some cases, to keep threatened jobs. In April 2015, eleven teachers and administrators were convicted of racketeering charges stemming from the scandal and sentenced to up to 20 years in prison. Alan Blinder, *Atlanta Educators Convicted in School Cheating Scandal*, N.Y. TIMES (Apr. 1, 2015), http://www.nytimes.com/2015/04/02/us/verdict-reached-in-atlanta-school-testing-trial.html [https://perma.cc/H5Z4-Y7GG].
- 236. See, e.g., Winnie Hu & Noah Remnick, City Invalidates Test Scores of Third Graders at Harlem School, N.Y. Times (July 26, 2015), http://www.nytimes.com/2015/07/27/nyregion/city-invalidates-test-scores-of-third-graders-at-harlem-school.html [https://perma.cc/A6N9-DNHF] (explaining that the results of third-grader standardized tests were invalidated after allegations of testing improprieties by school's principal).
- 237. Also worth considering is the complaint that these bonuses give administrators too much discretionary authority, are not transparent enough, and are based on very crude measures.

performance the principal wishes to prompt from the agent.²³⁸ But there is an overarching difficulty in disentangling the effect of the financial motivation from other sources of motivation—both intrinsic and extrinsic.²³⁹ This is especially tricky in the context of professional motivation, which is also an issue in the health-care context. And there are other overarching concerns. Financial incentives seem to cause focus on the metric to which compensation is tied, and in particular, promote paying attention to metrics that are easier to move, while ignoring the harder cases.²⁴⁰ Performance pay can also encourage risk-taking behavior and even cheating.

Second, it confirms that performance pay works better in some contexts than others. Key attributes of successful performance pay systems appear to be: (1) easy to define and measure tasks; (2) low ability or need to cheat on the metrics; and (3) a low likelihood of crowding out already strong intrinsic motivation, either because intrinsic motivation is weak to begin with or intrinsic motivation is not particularly necessary to successful execution of the task.

B. Early Results of Incentive Pay in Health Care

Although the use of performance pay in executive compensation, sports, and education has a longer history, a preliminary set of data is developing in the health industry. Many of these early stage studies have significant limitations. And it is worth noting that physician incentive pay is not yet particularly widely implemented. But as with other industries, the early results in health care are mixed or inconclusive. The meta-studies and systematic

^{238.} See supra Part II.C.

^{239.} See supra Part II.B.3.

^{240.} See id.

^{241.} See Stephen Campbell et al., Quality of Primary Care in England with the Introduction of Pay for Performance, 357 New Eng. J. Med. 181 (2007); Frank Eijkenaar et al., Effects of Pay for Performance in Health Care: A Systematic Review of Systematic Reviews, 110 Health Pol'y 115 (2013); Ellen T. Kurtzman et al., Performance-Based Payment Incentives Increase Burden And Blame For Hospital Nurses, 30 Health Aff. 211 (2011).

^{242.} For instance, many of the studies lack the necessary rigor because they are not randomized or controlled or have very small sample sizes. Also, many are based simply on physician and beneficiary surveys but do not use any other quality metrics. Many studies focus either on the cost question or the quality question, but not both. And there are few long-term studies, in part because pay-for-performance in health care is relatively new and also frequently changing in format. Finally, the providers that become subject to incentive pay may reflect selection bias. This is particularly true in the experiments that study the Pioneer ACOs, where government criteria to participate in the program was rigorous. See CMS Medicare Shared Savings Fact Sheet, supra note 87 (describing the Pioneer ACO Model).

^{243.} Compare David J. Nyweide et al., Association of Pioneer Accountable Care Organizations vs Traditional Medicare Fee for Service With Spending, Utilization, and Patient Experience, 313 JAMA 2152 (2015) (finding that pay for performance decreased costs and maintained quality for most ACOs), and Sule Calikoglu et al., Hospital Pay-For-Performance Programs In Maryland Produced Strong Results, Including Reduced Hospital-Acquired Conditions, 31 HEALTH AFF. 2649 (2012) (finding that Maryland's Quality Reimbursement Program reduced the prevalence of

analyses summarize that:

- Studies are mixed and inconclusive on whether the use of pay for performance (P4P) improves the quality of care in primary care. 244
- The effects of P4P on quality of care and outcomes remains uncertain as uncontrolled studies suggest P4P improves quality of care, while higherquality studies suggest otherwise.²⁴⁵
- There is a growing trend of rewarding PCPs with financial incentives for reaching quality benchmarks; however, there is insufficient data to determine whether the incentives actually improve quality. 246

The next subparts consider the evidence to date in more detail.

1. Financial Incentive Effects on Quality Metrics

The majority of empirical work studying provider incentive-based compensation has focused on the question of quality improvement. One metastudy reports that out of nine studies on the use of financial incentives to provider groups, only two found statistically significant improvement in quality metrics.²⁴⁷ In five of the studies, there was a small improvement in the measure of quality that was not statistically significant.²⁴⁸ In two studies, there was no effect compared with the control group.²⁴⁹ In general, the analyses suggest that those with the lowest baseline measures of quality were the easiest to move with

hospital-acquired conditions), with Ruth McDonald & Martin Roland, Pay for Performance in Primary Care in England and California: Comparison of Unintended Consequences, 7 Annals Fam. Med. 121 (2009) (analyzing the unintended consequences of paying physicians according to performance, such as destruction of the patient-physician relationship and physician autonomy).

^{244.} Eijkenaar et al., *supra* note 241, at 119 ("[A]ll authors... essentially reached the same conclusion: results are mixed and inconclusive and there is insufficient evidence to support the use of P4P to improve the quality of preventative and chronic care in primary care.").

^{245.} Sherilyn Houle et al., *Does Performance-Based Remuneration for Individual Health Care Practitioners Affect Patient Care? A Systematic Review*, 157 Annals Internal Med. 889, 889 (2012) ("Uncontrolled studies (15 before-after studies, 2 cohort comparisons) suggested that P4P improves quality of care, but higher-quality studies with contemporaneous controls failed to confirm these findings. . . . The effect of P4P targeting individual practitioners on quality of care and outcomes remains largely uncertain.").

^{246.} Anthony Scott et al., The Effect of Financial Incentives on the Quality of Health Care Provided by Primary Care Physicians, COCHRANE DATABASE OF SYSTEMATIC REVS., at 2 (2011) ("The use of financial incentives to reward PCPs for improving the quality of primary healthcare services is growing. However, there is insufficient evidence to support or not support the use of financial incentives to improve the quality of primary health care. Implementation should proceed with caution").

^{247.} Laura A. Peterson et al., *Does Pay-for-Performance Improve the Quality of Health Care?*, 145 Annals Internal Med. 265, 267 (2006).

^{248.} Peterson et al., supra note 247, at 267.

^{249.} Peterson et al., supra note 247, at 268.

financial incentives.²⁵⁰ And process-of-care measures were more sensitive to incentive effects than outcome measures.²⁵¹

Other systematic analyses tend to find that some quality metrics are correlated with the financial incentive, while others do not.²⁵² For instance, one study found a positive correlation between the incentive and quality of care for diabetes and asthma, but not for heart disease.²⁵³ Another study also found significant variation in metrics, finding better results for immunizations than cancer screenings.²⁵⁴

But in general, studies have found that process measures are easier to move than patient outcomes.²⁵⁵ This has generally been seen as problematic in the industry because its ultimate goal is to improve outcomes rather than just processes.

A study done at Fairview Health Services is also instructive. Fairview is a Pioneer ACO that operates forty-four primary-care clinics in Minnesota. ²⁵⁶ In April 2011, Fairview implemented a compensation model that tied primary care physician compensation to clinic-level performance on quality metrics. ²⁵⁷

^{250.} Id. at 268-69.

^{251.} Id. at 269.

^{252.} See, e.g., R. Adams Dudley et al., Strategies to Support Quality-Based Purchasing: A Review of the Evidence, 10 Technical Review, at i, v (July, 2004) (finding a correlation with incentive for only seven out of eleven metrics); Robert Town et al., Economic Incentives and Physicians' Delivery of Preventive Care – A Systematic Review, 28 Am. J. Preventive Med. 234, 234 (2005) (finding only one out of eight outcomes significantly improved with financial incentive).

^{253.} See Jon B. Christianson et al., Lessons from Evaluations of Purchaser Pay-for-Performance Programs: A Review of the Evidence, 65 MED. CARE RES. & REV., 5S, 19S (2008).

^{254.} Susan A. Sabatino et al., Interventions to Increase Recommendation and Delivery of Screening for Breast, Cervical, and Colorectal Cancers by Healthcare Providers Systematic Reviews of Provider Assessment and Feedback and Provider Incentives, 35 Am. J. PREVENTIVE MED. S67 (2008); see also Sandra Tanenbaum, Pay for Performance in Medicare: Evidentiary Irony and the Politics of Value, 34 J. HEALTH POL. POL'Y & L. 717, 723–24 (2009) (discussing a study that found a significant improvement on diabetes measurements as a result of pay-for-performance).

^{255.} See Gerd Flodgren et al., An Overview of Reviews Evaluating the Effectiveness of Financial Incentives in Changing Healthcare Professional Behaviours and Patient Outcomes, COCHRANE DATABASE OF SYSTEMATIC REVS. (2011). But some noted that positive findings particularly for process measures may be based on increased documentation rather than changed practices. See, e.g., Campbell et al., supra note 241, at 187–88 (discussing the common criticism "of pay-for-performance programs that their main effect is to promote better recording of care rather than better care").

^{256.} Pioneer ACOs were those selected by CMS after a rigorous proposal process because they are experienced entities ready to share losses in exchange for the opportunity to recoup a higher percentage of savings achieved. See CMS Medicare Shared Savings Fact Sheet, supra note 87 (describing the Pioneer ACO Model).

^{257.} Prior to 2011, Fairview utilized a traditional fee-for-service model with the possibility of a small annual quality bonus. See Jessica Greene et al., Large Performance Incentives Had The Greatest Impact On Providers Whose Quality Metrics Were Lowest At Baseline, 34 HEALTH AFF. 673, 673 (2015).

Specifically, forty percent of physician compensation was based on performance on five quality metrics: diabetes care (12%), vascular care (12%), cancer screening (6%), depression care (6%), and asthma care (4%). For example, if a clinic performed at the state median for diabetes care, then twelve percent of the physician's salary would be at median market salary. But if the clinic performed above that median, physicians would receive above market salary for that twelve percent of their compensation (based on a sliding scale). And if the clinic performed below the state median for that metric, the physician would receive below market salary for that twelve percent. If performance on a metric was particularly poor (below twenty percent of the state median), a physician could receive no compensation at all for that portion of their salary.

Fairview's data was studied to determine whether the incentive model correlated with greater improvement on quality metrics than for comparable groups of physicians not using incentive-based compensation. The study "found that Fairview's improvement . . . was not greater than the improvement in other comparable Minnesota medical groups. But providers who were the poorest performers at the start of the study improved the most relative to other groups. And performance pay seemed to narrow the variation in quality among the participating clinics. Overall, though, the study concluded that "[t]he large quality incentive fell short of its overall quality-improvement aim." Many other studies similarly have found no difference in quality-improvement rates between the participating group and the control group.

On the other hand, some studies have found success in using financial incentives to improve quality metrics, particularly in the Medicare context.²⁶⁴ The Medicare Physician Group Practice Demonstration is one example. Researchers there found an improvement in quality associated with paying financial

^{258.} Compensation under a pay-for-performance system "can range from small bonuses for performance on a few quality indicators to as much as one-quarter of a provider's income for performance on over 100 metrics." *Id.* Fairview is an interesting example because forty-percent incentive pay is quite high relative to most other pay-for-performance schemes. *Id* at 674.

^{259.} The study methodology compared improvement on performance metrics (determined by comparing data from pre-incentive compensation to data post-incentive compensation) by Fairview clinics to the same data for comparable medical groups not on an incentive-based pay plan. *Id.* at 673.

^{260.} Id.

^{261.} Id.

^{262.} Id.

^{263.} Andrew Ryan & Jan Blustein, *The Effect of the MassHealth Hospital Pay-for-Performance Program on Quality*, 46 HEALTH SERVS. RES. 712 (2011) (finding the Massachusetts Medicaid hospital pay-for-performance program did not improve quality of care); Rachel Werner et al., *The Effect of Pay-for-Performance in Hospitals: Lessons for Quality Improvement*, 30 HEALTH AFF. 690, 694–95 (2011) (finding no difference in mortality rates between hospitals using the Medicare Premier Hospital Quality Incentive program and nonparticipating hospitals).

^{264.} See Karan Ho et al., Can Incentives to Improve Quality Reduce Disparities?, 45 HEALTH SERVS. RES. 1 (2010); James, supra note 56; Werner et al., supra note 263.

bonuses.²⁶⁵ Although the data is not focused solely on physician-level incentives, some of the more recent data from the early years of the Pioneer ACOs is optimistic, at least in the aggregate. Pioneer ACO data from CMS suggests modest improvements in quality over the three years in the program. Between year two and year three, ACOs improved by 3.6 percent on average across the thirty-three quality measures on which ACOs must report.²⁶⁶ Also, in five out of seven measures, patient experience scores improved.²⁶⁷

In short, though, more data, and more study is needed in this area to report any conclusive results. Particularly as to physician pay, many programs are still in their infancy. As these programs scale up, more data will be available to analyze.

2. Link to Cost Reduction

A number of studies also assess the extent to which pay for performance can be linked to cost savings. The most salient inquiry is whether cost savings can be achieved while quality metrics are simultaneously maintained or improved. The purpose of incentive-pay models is not to achieve cost savings at the sacrifice of quality. Arguably that was the problem with HMOs.

Again, results are mixed. Some are positive. For instance, one study found evidence of cost-effectiveness for twelve measures included in the quality and outcomes framework. Another study of the Yale New Haven Health System found the implementation of quality indicators reduced hospital costs per patient. Others actually found that where quality improves as intended, cost increases rather than decreases.

^{265.} Carrie Colla et al., Spending Differences Associated With the Medicare Physician Group Practice Demonstration, 308 JAMA 1015 (2012). Although note that for Medicare's Premier Hospital Quality Incentive Demonstration, it seemed for the first two years that process of care quality indicators improved more rapidly for the incentive hospitals than control hospitals, but differences between the two groups were not detectable by five years out, and patient outcomes did not improve. Werner et al., supra note 263.

^{266.} See Pioneer ACO Model: Performance Year 3, CTRS. MEDICARE & MEDICAID SERVS., https://innovation.cms.gov/Files/x/pioneeraco-fncl-py3.pdf [https://perma.cc/HPW3-FR8W]; Pioneer ACO Model: Performance Year 3, CTRS. MEDICARE & MEDICAID SERVS., https://innovation.cms.gov/Files/x/pioneeraco-fncl-py2.pdf [https://perma.cc/BW2T-ZXNF].

^{267.} Sources cited supra note 266.

^{268.} Anne Mason et al., The GMS Quality and Outcomes Framework: Are the QOF Indicators a Cost-Effective Use of NHS Resources?, in QUALITY AND OUTCOMES FRAMEWORK: JOINT EXECUTIVE SUMMARY REPORTS TO THE DEPARTMENT OF HEALTH (2008).

^{269.} Agency for Healthcare Research and Quality, AHRQ Quality Indicators Case Study: Yale New Haven Health System, U.S. DEP'T OF HEALTH & HUMAN SERVS. AGENCY FOR HEALTHCARE RESEARCH AND QUALITY 3 (Nov. 2015), http://www.qualityindicators.ahrq.gov/Downloads/Resources/Case_Studies/AHRQ_QI_YNHHS_Case_Study.pdf [https://perma.cc/4W6T-279T].

^{270.} Martin Emmert et al., Economic Evaluation of Pay-for-Performance in Health Care: A Systematic Review, 13 Eur. J. Health Econ. 755, 762 (2012) ("A majority of studies showed that improved quality of care can be achieved with higher costs.").

The meta and systemic analyses summarize that incentive-based compensation "can potentially be (cost-)effective, but the evidence is not convincing; many studies failed to find an effect and there are still few studies that convincingly disentangled the [incentive] effect from the effect of other improvement initiatives."²⁷¹

Again, the Medicare data is perhaps the most promising. In the Medicare Physician Group Practice Demonstration, with the improvement in quality described in the prior subpart, researchers also found a modest reduction in the growth of spending for most Medicare beneficiaries.²⁷²

3. Unintended Consequences

Several studies have also investigated whether incentive pay yields unintended consequences. In other words, some providers might succeed in improving quality and decreasing cost, but might do so in ways that have undesirable effects in other areas.

First, policymakers have been concerned that physician financial incentives will result in adverse selection, where physicians cherry pick the easier cases while harder cases receive less attention. Some researchers have noted this possibility, but empirical evidence remains sparse.²⁷³ One study of performance incentives for providers of substance abuse treatment found that the numbers of severely ill patients in the control group increased while those in the treatment group (for which financial incentives were awarded) decreased.²⁷⁴

Second, some studies have assessed whether incentive pay tied to certain procedures or categories of care has negative spillover effects on unincentivized procedures. But results are conflicting or inconclusive. One study compared trends between incentivized and unincentivized metrics and found no difference between the two.²⁷⁵ Other studies found that quality deteriorated somewhat for non-incentivized measures.²⁷⁶ Interestingly, one study found that "unincentivized measures improved when they were part of a condition for which there were

^{271.} Eijkenaar et al., supra note 241, at 115.

^{272.} Colla et al., supra note 265.

^{273.} Eijkenaar et al., supra note 241, at 124.

^{274.} Id

^{275.} See, e.g., Andrew Ryan, Effects of the Premier Hospital Quality Incentive Demonstration on Medicare Patient Mortality and Cost, 44 HEALTH SERVS. RES. 821, 837–38 (2009) ("[M]ortality rates for PHQID participants follow similar trends to noneligible hospitals immediately before and after the PHQID began for the nonincentivized conditions (stroke and gastrointestinal hemorrhage.").

^{276.} Tim Doran et al., Effect of Financial Incentives on Incentivized and Non-Incentivized Clinical Activities: Longitudinal Analysis of Data from the UK Quality and Outcomes Framework, 342 BMJ d3590 (2011), http://www.bmj.com/content/bmj/342/bmj.d3590.full.pdf [https://perma.cc/4UL2-KRS6] (finding small detrimental effects for that performance on non-incentivized aspects of care).

incentives for other measures."²⁷⁷ Spillover effects may exist. If they do, it is unclear if they tend to be positive or negative in nature.

Third, there has been concern over gaming the system or cheating on the metrics. There is some evidence to suggest that manipulating data to increase compensation is occurring, but nothing conclusive has been shown.²⁷⁸

The fourth unintended consequence concerns whether the use of financial incentives affects the intrinsic motivation of providers or provider professionalism. Here, there is some evidence that the use of incentive-pay results in a loss of professional autonomy, which has negative effects on motivation and professionalism. On the flip side, there is evidence that incentives work less well to motivate changes in behavior when they run up against entrenched professional norms. 280

Relatedly, some studies have noted that the use of incentive pay has adversely affected the physician-patient relationship.²⁸¹ For instance, physicians have reported resentment toward non-compliant patients who negatively impact their compensation.²⁸² In one study, physicians also reported pressure to convince patients to agree to certain treatments or to bypass the informed-consent process.²⁸³

In general, it is hard to draw concrete lessons from this very preliminary and mixed data. But it at least suggests that the predictions of the incomplete contracts literature may bear out in the health industry, as they seem to do in the executive compensation, education, and professional sports examples, and that there may be additional challenges unique to the health-care context. As such, the incomplete-contracts literature is a valuable tool for helping the industry to capitalize on the positive effects of this contracting strategy, while minimizing the negative effects. Doing so requires a much closer focus on the contexts in

^{277.} Eijkenaar et al., supra note 241, at 124.

^{278.} See Edward Norton, Incentive Regulation of Nursing Homes, 11 J. HEALTH ECON. 105, 123–127 (1992) (explaining how nursing homes under an incentive programs could "game to receive bonus payments"); see also Peterson et al., supra note 247, at 267 (finding that U.S. nursing homes were admitting "extremely disabled" patients who later recovered over a short period of time); Pieter van Herck et al., Systematic review: Effects, Design Choices, and Context of Pay-for-Performance in Health Care, 10 BMC HEALTH SERVS. RES. 247 (2010) (noting limited evidence of gaming).

^{279.} McDonald & Roland, supra note 243, at 124 (2009).

^{280.} Jillian Chown, Situated Professionalism: When Do Financial Incentives Influence Professional Behavior? (Oct. 23, 2015) (unpublished manuscript), http://faculty.chicagobooth.edu/workshops/orgs-markets/past/pdf/Chown.pdf [https://perma.cc/E5EL-DPFK].

^{281.} See, e.g., Christina et al., supra note 253; Ruth George et al., Value-Based Purchasing and the Doctor-Patient Relationship, 28 J. MED. PRAC. MGMT. 341 (2013).

^{282.} McDonald & Roland, supra note 243.

^{283.} *Id.* Note that it is this concern—about the effect of incentive pay on the doctor-patient relationship—that has caused Tom Price, U.S. Secretary of Health and Human Services, who is also a physician, to come out publicly against the use of incentive pay in health care. Japsen, *supra* note 7.

which incentive pay is likely to succeed compared to those in which it is unlikely to do so. The next Part takes up that question and starts the conversation on how the health industry might implement incentive pay in a much narrower set of circumstances—ones where it is more likely to have the desired effects.

IV. A NEW FOCUS: TARGETING INCENTIVE PAY TO COMPLIANCE-ORIENTED TASKS IN HEALTH CARE

While the industry is firmly behind incentive-based pay for doctors, it is not novel to suggest that incentive pay is potentially problematic. Those who raise concerns about it, however, tend to fall into one of two camps: they either think (1) we have not yet gotten incentive pay right;²⁸⁴ or (2) incentive pay is fundamentally flawed and cannot be fixed.²⁸⁵ This Article stakes out a new middle position. Because the contracts literature suggests that context is so important, the primary focus for the health-care industry should be on determining where to implement incentive pay and where not to.

At present, little is being done to focus implementation. Whereas incentive pay began in the context of HMOs using process measures for primary-care physicians, it is now being used across delivery models for all types of physicians, and across a broad spectrum of quality measures. Indeed, the movement has been to expand implementation of incentive pay from process measures to outcome measures, which may be the exact wrong approach.

Incentive pay seems to be a better fit for compliance-oriented tasks that are not cognitively complex. When tasks are complex or require innovation or creativity, concerns about hyperfocus, cheating, and the counter-motivational effects of financial incentives become salient. As Michael Dorff explained, "[P]erformance pay works great for mechanical tasks like soldering a circuit but works poorly for tasks that are deeply analytic or creative." Giving someone financial incentives is not going to make them magically better at a difficult task or more innovative or creative. In fact, it can negatively impact their intrinsic motivation to succeed in such contexts. 287

^{284.} These scholars generally argue that pay for performance can be improved by identifying better quality metrics or changing the magnitude or delivery model of the incentives. See, e.g., Michael F. Cannon, Pay-for-Performance: Is Medicare a Good Candidate?, 7 YALE J. HEALTH POL'Y, L. & ETHICS 1, 5 (2007); Werner et al., supra note 263, at 691.

^{285.} See, e.g., Stout, supra note 19, at 536 (2014) (suggesting moving to nonfinancial or ex post rewards instead).

^{286.} James Surowiecki, *Why C.E.O. Pay Reform Failed*, New YORKER (Apr. 20, 2015), http://www.newyorker.com/magazine/2015/04/20/why-c-e-o-pay-reform-failed [https://perma.cc/568W-BGEY] (quoting Michael Dorff).

^{287.} Marianne Promberger & Theresa M. Marteau, When Do Financial Incentives Reduce Intrinsic Motivation? Comparing Behaviors Studied in Psychological and Economic Literatures, 32 HEALTH PSYCHOL. 950, 950-53 (2013); Tomas Chamorro-Premuzic, Does Money Really Affect Motivation? A Review of the Research, HARV. BUS. REV. (Apr. 10, 2013), https://hbr.org/2013/04/does-money-really-affect-motiv [https://perma.cc/PP7Q-GDFY].

This Part starts the conversation, suggesting some ways the health-care industry might draw the line between contexts to implement incentive pay and contexts not to.

A. Big Data and Evidence-Based Medicine

The Big Data movement has created a lot of buzz across industries in recent years. Big Data refers to the ability to analyze large datasets to find correlations and make predictions about behavior. Big Data is now commonly used to better understand customer behaviors and preferences to better target consumer marketing. For instance, Wal-Mart uses Big Data to more accurately predict which products will sell. Insurance companies also use Big Data, for instance to better detect fraudulent claims. And the government uses Big Data to get ahead of security threats. ²⁹¹

The health-care industry was somewhat late to join the Big Data movement, but the revolution is now fully underway.²⁹² There are four major pools of data

^{288.} Nicolas P. Terry, *Big Data Proxies and Health Privacy Exceptionalism*, 24 HEALTH MATRIX 65, 77 (2014) (explaining that Big Data refers to collection and storage of large data sets, but also data mining and predictive analytics to process data, make predictions or discover correlations, and drive decisions).

^{289.} See Bernard Marr, Big Data, Walmart and The Future of Retail, LINKEDIN: PULSE (Feb. 19, 2015), https://www.linkedin.com/pulse/big-data-walmart-future-retail-bernard-marr [https://perma.cc/7H4R-BN4Z]; see generally Bernard Marr, Big Data: A Game Changer in The Retail Sector, FORBES (Nov. 10, 2015), http://www.forbes.com/sites/bernardmarr/2015/11/10/big-data-a-game-changer-in-the-retail-sector [https://perma.cc/JCU8-LLH9] (discussing the use of Big Data in retail).

^{290.} See Mark Isbitts, Preventing Health Care Fraud with Big Data and Analytics, LexisNexis: Insights, http://www.lexisnexis.com/risk/insights/health-care-fraud-layered-approach.aspx [https://perma.cc/C6SU-KY29] (last accessed Jan. 7, 2017); see also Andrea Eichhorn, Leverage Big Data to Fight Claims Fraud, IBM SOFTWARE (June 2013), http://www-935.ibm.com/services/multimedia/Exploiter_le_Big_Data_pour_lutter_contre_la_fraude_aux_sinist res_Juin_2013.pdf [https://perma.cc/DWK8-6ZBT].

^{291.} See John Podesta et al., Big Data: Seizing Opportunities, Preserving Values, EXECUTIVE OFFICE PRESIDENT 27 (May 1, 2014), https://www.obamawhitehouse.gov/sites/default/files/docs/big_data_privacy_report_may_1_2014.pdf [https://perma.cc/D5UU-WT34]; Bernhard Warner, What the Intelligence Community is Doing With Big Data, BLOOMBERG (Feb. 5, 2013), http://www.bloomberg.com/news/articles/2013-02-05/what-the-intelligence-community-is-doing-with-big-data [https://perma.cc/P6HX-PXQB]; Press Release, MeriTalk, MeriTalk Study Shows 81 Percent of Federal Government Agencies Using Big Data Analytics to Cut Cybersecurity Breaches (Aug. 29, 2016), https://meritalk-q1msnaybldf.netdna-ssl.com/wp-content/uploads/2016/08/49503-MeriTalk Cloudera Disruptive Press Release FINAL_082916.pdf [https://perma.cc/6PPE-Y4TB].

^{292.} For instance, Kaiser Permanente has implemented HealthConnect, a system designed to ensure data exchange across facilities to reduce cost and improve quality. *Connectivity*, KAISER PERMANENTE, https://share.kaiserpermanente.org/total-health/connectivity [https://perma.cc/6XLS-VHWL]; Neil Versel, *Big Data Helps Kaiser Close Healthcare Gaps*, INFORMATIONWEEK: HEALTHCARE (Mar. 7, 2013, 11:51 AM), http://www.informationweek.com/healthcare/electronic-health-records/big-data-helps-kaiser-close-healthcare-gaps/d/d-id/1108977 [https://perma.cc/F68Y-2AKU]. Blue Shield of California, in partnership with NantHealth, is similarly developing an integrated technology system. Press Release, Blue Cross Calif., NantHealth and Blue Shield of

available in health care: activity (claims) and cost data, clinical data, pharmaceutical R&D data, and patient behavior and sentiment data.²⁹³ These data are already being used to fast track and improve medical research by finding important correlations without the need to enroll patients in new clinical studies and by vastly improving sample sizes.²⁹⁴ They are also being used to personalize medicine to make better diagnostic predictions and treatment suggestions.²⁹⁵ And they are being used to predict epidemics and improve public health.²⁹⁶

Some have said that Big Data will be important to the success of incentive pay because stakeholders will need to use it to improve outcomes and obtain the financial reward.²⁹⁷ But Big Data has the potential to do something else—to help determine *where* financial incentives should even be employed in the first place.

Big Data can help the industry understand where incentives work and where they do not in a number of different ways. First, it can improve the available information that now mostly comes from discrete studies. With claims data, outcome data, and information about where financial incentives were used, Big Data can yield very useful insight on where financial incentives seem to work and where they do not.

Big Data can also improve current attempts at evidence-based medicine.²⁹⁸ The goal of evidence-based medicine is to identify situations where a treatment is highly correlated with a positive outcome. If such scenarios can be identified, and all that is required is compliance, or implementation of a clear directive, those are situations where incentive pay is likely to be particularly effective. Many

California Form Proactive Healthcare Collaborative to Coordinate and Personalize Care (Oct. 2, 2012), https://www.blueshieldca.com/bsca/about-blue-shield/media-center/nant-100212.sp [https://perma.cc/Z64W-6MW7].

^{293.} See Kate Crawford & Jason Schultz, Big Data and Due Process: Toward A Framework to Redress Predictive Privacy Harms, 55 B.C. L. Rev. 93, 128 (2014); Basel Kayyali et al., The Big-Data Revolution in US Health Care: Accelerating Value and Innovation, MCKINSEY & COMPANY (Apr. 2013), http://www.mckinsey.com/insights/health_systems_and_services/the_big-data revolution in us health care [https://perma.cc/2UME-PN6V].

^{294.} See, e.g., CAPRICORN, http://capricorncdrn.org/?page_id=88 [https://perma.cc/JU5K-99QD]; Ho Ting Wong et al., Big Data as a New Approach in Emergency Medicine Research, 4 J. ACUTE DISEASE 178 (2015); Jennifer Frankovich et al., Evidence-Based Medicine in the EMR Era, 365 New Eng. J. Med. 1758 (2011); Jake Luo et al., Big Data Application in Biomedical Research and Health Care: A Literature Review, 8 BIOMED INFORM INSIGHTS 1 (2016).

^{295.} See Maryam Panahiazar, Empowering Personalized Medicine with Big Data and Semantic Web Technology: Promises, Challenges, and Use Cases, 2014 PROC. IEEE INT'L CONF. BIG DATA 790 (Oct. 2014).

^{296.} Bernard Marr, *How Big Data is Changing Healthcare*, FORBES (Apr. 21, 2015), http://www.forbes.com/sites/bernardmarr/2015/04/21/how-big-data-is-changing-healthcare [https://perma.cc/VBD7-F4Q7].

^{297.} In this new environment, health-care stakeholders have greater incentives to compile and exchange information. See, e.g., Sean Gleeson et al., Evaluating a Pay-for-Performance Program for Medicaid Children in an Accountable Care Organization, 170 JAMA PEDIATRICS 259 (2016) (studying data to test whether financial incentives improved physician performance in ACO serving Medicaid children).

^{298.} See Kayyali et al., supra note 294.

physicians have opposed the idea of evidence-based medicine—and the idea that physicians should rely on efficacy data in making decisions about care—on the basis that professional judgment is important and that medicine is part science, and also part art.²⁹⁹ It is undoubtedly true that not all of medicine can be reduced to a study of the data. But the data can help to differentiate between aspects of medicine where individual judgment is important, and aspects where compliance with established practices is desired.³⁰⁰

The proliferation of electronic health record (EHR) systems is one form of Big Data that can have a profound effect on evidence-based medicine. EHRs can "report timely data that could facilitate surveillance of infectious diseases, disease outbreaks, and chronic illnesses." EHRs can then be analyzed to identify medical procedures that are most effective at treating illnesses. Standardizing EHR systems is particularly important to these goals.

But there are some challenges to this approach. For one, much of the necessary information is siloed, with some in the hands of payers and some held by providers and hospitals. Stakeholders would need to find effective ways to share data. But some of that is already occurring, and the ACA's push toward collaborative care should help.

There are also privacy and confidentiality concerns. And it is possible that the analysis will ultimately tell us that there are not many areas of practice where tasks can be routinized. But nonetheless, there is reason to believe that Big Data may hold some answers here.

B. Physicians vs. Other Health Providers

Another possibility to consider is the distinction that industry has already drawn between the work that physicians do and the work that advanced practice clinicians do. 302 Advanced practice providers are medical providers who are not

^{299.} See Joshua J. Goldman & Tiffany L. Shih, The Limitations of Evidence-Based Medicine—Applying Population-Based Recommendations to Individual Patients, 13 AMA J. ETHICS 26, 26 (2011); Hasnain-Wynia Romana, Is Evidence-Based Medicine Patient-Centered and is Patient-Centered Care Evidence-Based?, 41 HEALTH SERVS. RES. 1, 4 (2006).

^{300.} Evidence from early attempts at pay-for-performance suggests that changes to process often did not beget better outcomes. See Werner et al., supra note 263, at 691. The hope is that Big Data can more effectively determine the right processes that will beget better outcomes. Much of health care cannot be reduced to tried and true processes (think about difficult patients with multiple comorbidities) but also much of it can.

^{301.} Sharona Hoffman & Andy Podgurski, Big Bad Data: Law, Public Health, and Biomedical Databases, 41 J.L. MED. & ETHICS 56, 56 (2013).

^{302.} Advanced practice providers are sometimes referred to as mid-level practitioners. See, e.g., 21 C.F.R. § 1300.01 ("Mid-level practitioner means an individual practitioner, other than a physician, dentist, veterinarian, or podiatrist, who is licensed, registered, or otherwise permitted by the United States or the jurisdiction in which he/she practices, to dispense a controlled substance in the course of professional practice. Examples of mid-level practitioners include, but are not limited to, health care providers such as nurse practitioners, nurse midwives, nurse anesthetists, clinical nurse specialists and physician assistants who are authorized to dispense controlled substances by

physicians but who are licensed to diagnose and treat patients, sometimes under the supervision of a physician. Advanced practice providers include physician assistants (PAs) and nurse practitioners (NPs), among other categories.

A PA, according to the American Academy of Physician Assistants, is a "nationally certified and state-licensed medical professional" who practices "on healthcare teams with physicians and other providers."³⁰⁴ PAs perform a range of activities, usually (but not always) in the realm of primary care. Most commonly, they take medical histories and perform physical examinations, order and interpret lab tests, diagnose and treat common illnesses, and prescribe medication to treat those illnesses.³⁰⁵ The number of PAs in practice in the United States is proliferating.³⁰⁶ Studies suggest they provide quality care in the areas in which they practice that is comparable to the care provided by physicians.³⁰⁷

An NP is a registered nurse who has additional training in physical diagnosis, psycho-social assessment, and health management in primary care.³⁰⁸ Most NPs can order tests, diagnose common acute and chronic conditions, and prescribe medication.³⁰⁹ Increasingly, NPs are practicing independently, rather than under the supervision of physicians.³¹⁰

the State in which they practice."). However, many in the profession have objected to the descriptor "mid-level" to apply to a group of professionals with advanced degrees. See, e.g., Catherine S. Bishop, Advanced Practitioners Are Not Mid-Level Providers, 3 J. Advanced Pract. Oncology 287 (2012); Michael D. Pappas, Stop Calling Nurse Practitioners Mid-Level Providers, KevinMD (Jul. 14, 2014), http://www.kevinmd.com/blog/2014/07/stop-calling-nurse-practitioners-mid-level-providers.html [https://perma.cc/Y893-7AKX]. As such, this Article will employ the term advanced practice providers or practitioners.

303. See, e.g., Ruth McCorkle, Transition to a New Cancer Care Delivery System: Opportunity for Empowerment of the Role of the Advanced Practice Provider, 3 J. ADVANCED PRAC. ONCOLOGY 34 (2012) (defining advanced practice provides to include nurse practitioners and physician assistants).

304. See What is a PA?, Am. ACAD. PAs, https://www.aapa.org/What-is-a-PA [https://perma.cc/F8UV-MMU6].

305. Id.

306. See Occupational Outlook Handbook: Physician Assistants, Bureau Lab. Stat. (Dec. 17, 2015), http://www.bls.gov/ooh/healthcare/physician-assistants.htm [https://perma.cc/EHS6-QLTP]; 2015 Statistical Profile of Certified Physicians Assistants, Nat'l Commission on Certification Physicians Assistants (Mar. 2016), https://www.nccpa.net/Uploads/docs/2015StatisticalProfileofCertifiedPhysicianAssistants.pd [https://perma.cc/R6S4-ZYM2] (stating that the PA profession grew 35.9% between 2010 and 2015).

307. See Amitesth Agarwal et al., Process and Outcome Measures among COPD Patients with a Hospitalization Cared for by an Advance Practice Provider or Primary Care Physician, PLOS ONE (Feb. 24, 2016), http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148522 [https://perma.cc/HWH6-SPEW]; Mary O. Mundinger et al., High Quality of Care: Primary Care Outcomes in Patients Treated by Nurse Practitioners or Physicians: A Randomized Trial, 283 JAMA 59 (2000).

308. See What is an NP?, AM. ASS'N NURSE PRACTITIONERS, https://www.aanp.org/all-about-nps/what-is-an-np [https://perma.cc/3WNX-QWD3].

309. Id.

310. See John K. Inglehart, Meeting the Demand for Primary Care: Nurse Practitioners Answer the Call, NIHCM FOUND. (Oct. 2014), http://www.aacn.nche.edu/downloads/aacn-future-task-

There is some controversy about how to define the scope of medical practice—tasks that can only be done by physicians and not other health providers—given the proliferation of these advanced practice practitioners. While there are some differences at the state level,³¹¹ the general idea is that these practitioners are permitted to do much of the more-routine and less-complex work that used to be solely within the purview of physicians.³¹² According to the American Health Lawyers Association, "[t]he general consensus is that these practitioners provide patient care services requiring less acuity and which are more routine, thereby freeing up physicians to focus their attention upon cases with greater complexity."³¹³

Therefore, one possibility is to apply incentive pay to the work of PAs and NPs, but not to physicians. If incentive pay is a better match for compliance-oriented tasks that do not require innovation, this might be one way to draw the line.

A counter argument, though, is that not all work that PAs and NPs do is routine or compliance based, particularly to the extent that they have to employ their judgment to make diagnoses. Advanced practice providers, too, will encounter complex cases in their practice that will require creativity and high levels of effort. It is not clear, for instance, that an office visit requiring an advanced practice provider to diagnose an illness is more rote and less creative than a surgery a physician has performed 10,000 times. Additionally, these advanced practice practitioners may have high levels of intrinsic motivation that incentive pay could crowd out. In short, it is not clear that applying incentive pay to advanced practice practitioners instead of physicians would have the desired effect, but there is reason to at least test this method, particularly because a high

force/Inglehart-PC-Article.pdf [https://perma.cc/3UGV-CWHC]; Amanda Van Vleet & Julia Paradise, *Tapping Nurse Practitioners to Meet Rising Demand for Primary Care*, KAISER FAM. FOUND. (Jan. 20, 2015), http://kff.org/medicaid/issue-brief/tapping-nurse-practitioners-to-meetrising-demand-for-primary-care [https://perma.cc/P2DC-X43T].

^{311.} See, e.g., Physician Assistant Practice Act of 1987, 225 ILL. COMP. STAT. § 95/4 (2013) (defining the scope of practice for PAs practicing in Illinois); South Carolina Physician Assistants Practice Act, S.C. Code Ann. § 40-47-935 (2016) (defining the scope of practice for PAs practicing in South Carolina); Physician Assistant Scope of Practice, IND. Code § 25-27.5-5-1 to -6 (2016) (defining scope of practice for PAs practicing in Indiana).

^{312.} See, e.g., 225 ILL. COMP. STAT. § 95/4 (2013) (defining the scope of practice for PAs Illinois); Scope ofPractice, Ам. ACAD. practicing in PA [https://perma.cc/FN4L-2017), https://www.aapa.org/WorkArea/DownloadAsset.aspx?id=583 Ass'n Nurse **PRACTITIONERS** AM. Practice Environment, https://www.aanp.org/legislation-regulation/state-legislation/state-practice-environment [https://perma.cc/R2R6-ZG58].

^{313.} Almeta E. Cooper & Paul W. Kim, Mid-level Practitioners in the Hospital Setting: Physician Assistants and Advanced Practice Nurses, AM. HEALTH LAW. ASS'N (AHLA-Papers P02070218, Feb. 7, 2002); see also Jessica Wolf, Eliminating Scope of Practice Barriers for Illinois Physician Assistants, 23 ANNALS HEALTH L.: ADVANCE DIRECTIVE 16, 17–18 (2013) ("PAs play an integral role in the delivery of health care by managing common diagnoses, providing routine treatments, and allowing physicians to focus on more complex patient care that requires their full expertise.").

percentage of the work they do is more likely to be compliance-based than in other areas of medicine.

C. Preventive Care vs. Responsive Treatment

One final idea is to utilize incentive pay for preventive care, but not responsive care. Preventive care is care that can help people avoid illness and improve general health. ³¹⁴ It includes care such as diagnostic testing, well visits, or vaccinations. ³¹⁵ Preventive care is, for the most part, routine, and does not require innovation or creativity. Therefore, it might be a good fit for incentive-based compensation.

Many in the industry believe that improving preventive care will not only improve actual health, but will also reduce health costs and improve quality of care. The idea is similar to why parties should specify contracts *ex ante*—to prevent additional costs *ex post*. It is cheaper to vaccinate people than to treat them if they become very ill from a preventable illness. And it is cheaper to screen for cancer and catch it early than not to engage in screening. Yet, too little preventive care is being done.

^{314.} On the other hand, responsive care refers to treating a problem or disease once it manifests.

^{315.} See Preventive Care, U.S. DEP'T HEALTH & HUM. SERVS. (Jul. 27, 2015), http://www.hhs.gov/healthcare/about-the-law/preventive-care/index.html [https://perma.cc/MJV3-C2WJ].

^{316.} See Building Healthier Communities by Investing in Prevention, U.S. DEP'T HEALTH & HUM. SERVS. (Feb. 9, 2011), http://www.hhs.gov/healthcare/facts-and-features/fact-sheets/building-healthier-communities-by-investing-in-prevention/index.html [https://perma.cc/CYE7-G9T5]. But see Katherine Baicker et al., The Oregon Experiment—Effects of Medicaid on Clinical Outcomes, 368 New Eng. J. Med. 1713 (2013) (describing a study where access to preventive services through Medicaid coverage was found to improve mental health, although not physical outcomes). But see Joshua T. Cohen et al., Does Preventive Care Save Money? Health Economics and the Presidential Candidates, 358 New Eng. J. Med. 661 (2008) (critiquing the assumption that preventive care will reduce costs).

^{317.} This proposition is not without controversy. Compare Fangjun Zhou et al., Economic Evaluation of the Routine Childhood Immunization Program in the United States, 2009, 133 PEDIATRICS 577 (2014) (finding that routine childhood immunizations result in net savings of \$13.5 billion in direct costs and \$68.8 billion in total societal costs), with David Brown, In the Balance: Some Candidates Disagree, but Studies Show It's Often Cheaper to Let People Get Sick, WASH. POST (Apr. 8, 2008), http://www.washingtonpost.com/wp-dyn/content/article/2008/04/04/AR200804043803.html [https://perma.cc/85MG-3MT3] (discussing evidence that preventive care, including vaccines, may not actually save money long-term).

^{318.} See The Economics of Cancer Prevention and Control, UNION INT'L CANCER PREVENTION & CONTROL (2014), http://www.iccp-portal.org/sites/default/files/resources/WCLS2014_economics_of_cancer_FINAL-2.pdf [https://perma.cc/2CFH-PGCW] (describing the economic benefits of prevention). But see William Black et al., Cost-Effectiveness of CT Screening in the National Lung Screening Trial, 371 New Eng. J. Med. 1793 (2014) (finding that screening actually costs an additional \$81,000 per quality adjusted life year gained.).

^{319.} See Kimberly S.H. Yarnall et al., *Primary Care: Is There Enough Time for Prevention?*, 93 Am. J. Pub. Health 635 (2003) (finding that time constraints limit primary care physicians' ability to provide preventive care).

Part of the problem is that under fee for service, even with recent bumps in rates, preventive care tends to yield low rates of reimbursement for providers.³²⁰ Providers need an incentive to encourage patients to obtain preventive care. Incentive-based compensation could provide that incentive. Indeed, part of the motivation of the new incentive-based schemes under the ACA was to address this problem—to give providers a reason to have their eyes on the long-term health of their patients.

Some attempts at tying payment incentives to increasing rates of preventive care services have generated positive results.³²¹ But also, many of the early experiments in pay for performance tended to focus on preventive care, and there is no evidence to date that those experiments were more effective than the broader implementation currently being undertaken.³²² As such, more study and experimentation with this targeted implementation needs to be done.

CONCLUSION

The health-care industry has rallied behind a far-reaching implementation of incentive pay, one that applies across delivery models, to generalist and specialty physicians, and to a wide range of procedures and diagnoses. The contracts literature suggests that this is too blunt of an approach. Task specification and control-based contracting that utilizes monitoring and financial incentives tends to work best for ensuring compliance. But it works less well for motivating consummate performance because it can signal distrust and crowd out social and professional norms that would otherwise have operated to improve performance. Task specification coupled with control mechanisms can also lead to gamesmanship and cheating on the metrics to secure increased compensation. The health-care industry should be focusing on where to implement incentive pay to capture its benefits for compliance and standardization, but minimize its negative impact on innovation and the operation of positive norms. The new Trump Administration has an opportunity to study this issue further and to claw back some of the misguided attempts to implement incentive pay where it is likely to have mal-effects. These are lessons to be extrapolated to other industries, as well.

^{320.} Physician Payment Report, supra note 53, at 15; Adam Atherly & Karoline Mortensen, Medicaid Primary Care Physician Fees and the Use of Preventive Services Among Medicaid Employees, 49 HEATLH SERVS. RES. 1306 (2014).

^{321.} See Janusz Kaczorowski, Views of Family Physicians Before and After Participation in a Reminder and Recall Project (P-PROMPT), 57 CAN. FAM. PHYSICIAN 690 (2011).

^{322.} See, e.g., Alan L. Hillman, Physician Financial Incentives and Feedback: Failure to Increase Cancer Screening in Medicaid Managed Care, 88 Am. J. Pub. Health 1699 (1998); Meredith B. Rosenthal, How Will Paying for Performance Affect Patient Care?, 8 AMA J. Ethics 162 (2006).