

**Beyond Master-Servant: A Critique of
Vicarious Liability**

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Jennifer Arlen* and W. Bentley MacLeod**

Abstract

To be efficient, tort liability rules governing organizations' liability for torts by their agents must ensure that organizations want their agents to take optimal precautions and benefit from using cost-effective mechanisms to regulate agents. Vicarious liability, the current the rule governing organizations' liability for their agents' torts, does not satisfy these objectives. By holding organizations liable for torts committed by employees, but not by independent contractors, vicarious liability discourages organizations from asserting direct control over agents, even when control is an efficient way to regulate care. Organizations governed by vicarious liability also may not attempt to induce efficient care-taking by independent contractors because organizations often do not maximize profits by inducing efficient care. Indeed, vicarious liability encourages organizations to undermine the effect of individual tort liability by hiring judgment-proof independent contractors.

I. Introduction

Tort liability is essential to the effective functioning of a free market economy because it encourages people who impose risks on others to take cost-justified precautions to reduce the expected costs of their activities.¹ In order for tort liability to fulfill its promise, however, it must provide efficient incentives to organizations, as well as individuals. Most important torts are caused by individuals working for, and under the influence of, organizations

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¹ See, e.g., Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972); John P. Brown, *Toward an Economic Theory of Liability*, 2 J. LEGAL STUD. 323 (1973); Steven Shavell, *Strict Liability Versus Negligence*, 9 J. LEGAL STUD. 1 (1980).

generally corporations).² These organizations are not passive by-standers, but instead ultimately determine whether agents strive to take cost-effective precautions against harm.

Organizations regulate agents' precautions through a variety of mechanisms that often are more effective than those available to the tort system. These tools include the assertion of direct control over precautions, monitoring agents, selection of agents, and the use of financial sanctions to either enhance or mute agents' potential tort liability.³ Accordingly, in order to deter inefficient risk-taking, tort liability must ensure that organizations want their agents to take optimal care and benefit from using all cost-effective means available to them to get their agents to do so.

This chapter examines the prevailing rule governing organizations' liability for torts committed by their agents, vicarious liability, to determine whether it is efficient. Vicarious liability (or *respondeat superior*) holds organizations (and other principals) liable for their agents' torts, committed within the scope of the agency relationship, but only if the organization and the agent are in a master-servant relationship, such as an employer-employee relationship. Organizations generally are not liable for torts by independent contractors, even if committed within the scope of the agent's authority. The central distinction between a master-servant agency relationship and a non-master-servant (*e.g.*, independent contractor) agency relationship turns on whether the principal had the capacity to control the physical conduct of the job.⁴

This chapter examines whether it is efficient to restrict organizations' liability for their agents' torts to situations where the principal has the capacity to control its agent's performance (as in an employer-employee relationship). We examine the effect on organizations of having a different entity-level liability rule for torts by employees and torts by independent contractors, and also insulating entities from liability for independent contractor, and show that both aspects of vicarious liability are inefficient.⁵

² Indeed, such torts dominate the standard torts course: the bargee in *U.S. v. Carroll Towing Co.*, 159 F.2d 169 (2d Cir. 1947), the tug boat captain in *The T. J. Hooper*, 60 F.2d 737 (2d Cir. 1932) (L. Hand, J.), *cert. denied*, 287 U.S. 662 (1932), the railway conductor in *Palsgraf v. Long Island R. Co.*, 248 N.Y. 339, 162 N.E. 99 (1928), the doctors and nurses in *Ybarra v. Spangard*, 25 Cal.2d 486, 154 P.2d 687 (1944), and the cab driver in *Li v. Yellowcab Co. of Calif.*, 532 P.2d 1226 (Cal. 1975), all were operating within organizations or other principal-agent relationships.

³ See *infra* section II.

⁴ RESTATEMENT (SECOND) OF AGENCY § 2 (1958); see *infra* section IV & note 31 (discussing vicarious liability in more detail).

⁵ Compare William M. Landes & Richard A. Posner, *THE ECONOMIC STRUCTURE OF TORT LAW* (1987) (supporting limiting liability to principals who exert direct control on the

In order to be efficient, tort liability must ensure that organizations want their agents to take efficient precautions and profit from using all cost-effective measures available to them to induce agents to take optimal care. Tort liability can do this by ensuring that organizations bear the costs of their agents' torts. Organizations thus should be held directly liable for their agents' torts whenever individual tort liability alone cannot ensure that agents and principals bear the full cost of agents' torts, such as when agents do not have enough wealth to pay optimal damage awards.⁶ In addition, tort liability must ensure that organizations obtain the full benefit of any measures they use to deter excessive risk-taking. Vicarious liability fails to achieve either objective. Moreover, vicarious liability is least likely to be effective when it is most needed, when agents are likely to be judgment-proof.

When organizations hire wealth-constrained agents, individual tort liability cannot provide adequate incentives for agents to invest in care because agents know they will not pay for all the harms they cause. Indeed, agents with sufficiently low wealth expect that they will not even be sued. Often such agents will not take efficient precautions unless tort liability induces organizations to assert more direct control over their agents' care-

grounds that principals are not in a good position to supervise inputs used by independent contractors and thus should not be liable for the latter's torts).

The present analysis focuses on the "capacity to control" requirement of vicarious liability, including the rule exempting principals from liability for torts by independent contractors. It does not examine the impact of vicarious liability on those principals who use master-servant relationships. For a discussion of the problems arising from the application of strict or absolute entity-level liability to govern master-servant relationships see Jennifer Arlen, *The Potentially Perverse Effects of Corporate Criminal Liability*, 23 J. LEGAL STUD. 833 (1994) (showing that absolute entity-level liability for agents' torts may deter organizations from monitoring for, or reporting, agents' wrongdoing); Jennifer Arlen & Reinier Kraakman, *Controlling Corporate Misconduct: An Analysis of Corporate Liability Regimes*, 72 NYU L. REV. 687 (1997) (showing that duty-based mitigation regimes are superior to absolute entity-level liability for employee wrongdoing); see also Jennifer Arlen & William Carney, *Vicarious Liability for Fraud on Securities Markets: Theory and Evidence*, 1992 ILL. L. REV. 691 (discussing special problems arising from entity-level liability for securities fraud).

⁶ E.g., Lewis Kornhauser, *An Economic Analysis of the Choice Between Enterprise and Personal Liability for Accidents*, 70 CALIF. L. REV. 1345 (1982) (the rule governing entity-level liability matters when agents cannot pay expected damages equal to the harms they cause); Alan O. Sykes, *An Efficiency Analysis of Vicarious Liability Under the Law of Agency*, 91 YALE L. J. 168 (1981) (same); see Jennifer Arlen & W. Bentley MacLeod, *Torts, Expertise and Authority: Liability of Physicians and Managed Care Organizations*, RAND J. ECON. (forthcoming 2005) (extending this result to the situation where principals regulate agents with both incentive contracts and by limiting the scope of the agent's authority).

taking, for example by providing equipment or directly monitoring and controlling agents' behavior, as occurs in employee-employer relationships.

Yet far from encouraging organizations to assert control, vicarious liability often discourages organizations from controlling their agents, even when it would be efficient for them to do so. Vicarious liability discourages the efficient exercise of control because organizations which exert control over agents are likely to be deemed "masters," and thus face liability for their agents' torts. Those that eschew control can avoid such liability. Organizations with insolvent agents thus increase their own liability for any accidents that occur if they hire agents as employees, because if they do so they must pay the full cost of their agents' torts. Otherwise their costs are limited to compensating agents for their expected liability (which is low when agents are judgment-proof). Consequently, vicarious liability discourages entities from asserting control in the very circumstance where control is most needed: where agents cannot be adequately regulated by individual liability alone because they are judgment-proof. Indeed, the present chapter shows that from the standpoint of encouraging firms to exert control over agents, vicarious liability can be worse than pure individual liability in some circumstances, because it discourages the use of control even by firms which benefit from using control to protect themselves from agents' risks.

Vicarious liability also is inefficient because it distorts independent contractor relationships by providing organizations who hire independent contractors with excessive incentives to employ thinly capitalized independent contractors. Under vicarious liability, competitive market forces favor thinly capitalized agents because they can charge less for tasks that create risk because they face lower expected tort liability. Thus, organizations seeking to minimize costs will face strong economic pressures to hire thinly capitalized independent contractors, notwithstanding that thinly capitalized independent contractors are more likely to take excessive risks because they face little risk of tort liability for any harms caused. This results in people bearing excessive risks as a result of organizations' activities.

Finally, vicarious liability fails to provide organizations with efficient incentives to use the other tools available to them, such as financial incentives, to induce wealth-constrained independent contractors to take efficient care to prevent harm to others. Organizations bear the full cost of care, but they do not obtain the full benefit of preventing accidents when their independent contractors cannot pay for the harms they cause. Exempting organizations from liability for their agents' torts, thus, leaves them free to provide inefficient incentives to agents to favor speed over quality or cost reduction over precaution because they can externalize the

cost of accidents caused by their judgment-proof independent contractors onto tort victims.⁷

The chapter thus shows that organizations operating in unregulated free markets will use independent contractors to impose excessive risks on society so long as organizational liability for agents' torts is governed by a regime of vicarious liability instead of a broader entity-level liability regime.⁸ The chapter thus potentially lends support to those jurisdictions that are expanding the reach of entity-level liability to organizations who hire independent contractors in some areas.⁹ It also reveals the importance of further scholarship seeking to define the optimal limits of entity liability for agents' torts.¹⁰

This chapter proceeds as follows. Section II discusses optimal tort law. Section III examines optimal liability in a principal-agent context. Section IV discusses when the rule of principal-level liability matters. Section V demonstrates the perverse effect of vicarious liability on organizations' use of control to regulate agents' behavior. Section VI shows that vicarious liability also leads organizations to encourage excessive risk-taking by independent contractors.

II. Role of Tort Liability

Although popular debate often paints tort liability as the enemy of the free market, in fact many markets are not efficient absent tort liability

⁷ For example, most courts employing traditional vicarious liability analysis conclude that Managed Care Organizations cannot be held liable for their affiliated physicians' negligence provided they do not directly control physicians' performance, even when they use financial incentives and utilization review to influence physicians' treatment decisions. See Jennifer Arlen & W. Bentley MacLeod, *Malpractice Liability for Physicians and Managed Care Organizations*, 78 NYU L. REV. 1929, 1975-79 (2003) (discussing evidence on the impact of MCOs on quality of care).

⁸ Vicarious liability is not the only rule that encourages excessive risk-taking by organizations. Limited liability also encourages excessive risk-taking by corporations, especially when it insulates parent corporations from torts by their wholly-controlled subsidiaries. *E.g.*, Henry Hansmann & Reinier Kraakman, *Towards Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L. J. 1879 (1991) (arguing for pro-rata shareholder liability for corporate torts); David W. Leebron, *Limited Liability, Tort Victims, and Creditors*, 91 COLUM. L. REV. 1565 (1991) (arguing against limited liability for corporate torts); see also Lynn M. LoPucki, *The Death of Liability*, 106 YALE L. J. 1 (1996).

⁹ For example, some jurisdictions now hold hospitals liable for torts by physicians who practice primarily within the hospital (such as radiologists and anesthesiologists), even when they are hired as independent contractors.

¹⁰ This chapter explores reasons why the existing regime is not efficient in many situations, but does not seek to define the scope of an optimal entity-level liability regime. We leave that issue for future work.

for harms caused. Free markets serve their promise when people in the pursuit of profit take actions that increase society's total welfare. Yet free markets can be destructive when individuals seek personal gain by wasting valuable resources that could be better used elsewhere.

People pursuing their own aims within free markets will pursue socially profitable projects, and avoid wasteful ones, if they not only obtain the benefit, but also bear costs, of their actions. In this situation, individuals seeking to maximize their own net gain also will maximize society's net gain, avoiding any activity which produces greater social costs than benefits. By contrast, if people are permitted to retain the benefits of their activities without having to pay for all the costs, then people's efforts to maximize profits may reduce society's wealth because people may profit from activities which produce more costs than benefits. People also will not spend enough on preventing harm to others. Achieving the promise of a free market economy thus requires that people who bear the costs of the risks they create.

One of the resources that businesses use in pursuit of profits is people's lives. Most businesses profit by taking actions that put others in peril. Businesses cannot manufacture, deliver, or sell most goods without creating a risk that someone will be hurt. This risk of injury is a cost of doing business similar to other more direct costs, such as labor or capital. Accordingly, a central problem for a free market economy is how to get those who profit from risk to refrain from creating risks that generate more harm than benefit.¹¹ Businesses also must be induced to take cost-justified precautions to reduce risk – to invest in care whenever doing so reduces total expected accident costs (defined as the costs of care plus expected accident costs).

Businesses can be relied upon to regulate risk efficiently whenever the cost of the harm falls on the business itself. Businesses that obtain the benefit and bear the cost of risk profit from adopting cost-effective measures to regulate their agents' risk-taking. Yet, left to their own, businesses will not regulate risk efficiently if harms fall on others. Businesses which bear the cost of risk reduction, but do not bear the cost of harms caused by their agents' risk-taking, have little reason to invest in reducing risk. They will not take cost-effective precautions to reduce risk. Accordingly, a central problem for a market economy is to induce those who create risk to treat costs that fall on others as equivalent to those that fall on them directly.

A primary purpose of tort liability is to promote the free market by giving people who benefit from, and can influence, risk a reason to treat as

¹¹ This chapter assumes that business should not impose inefficient risks without taking a position on whether businesses should be entitled to impose all efficient risks.

their own the cost of risk that falls on others by making risk-imposers pay victims for injuries they cause. Tort liability can do this by requiring those who regulate risk-taking to pay for the injuries their activities cause.¹²

III. Liability and Principal-Agent Relationships

Tort liability provides efficient incentives to those who regulate risk-taking in different ways, depending on whether risk is created by a purely autonomous individual or instead by someone working on behalf of, and under the influence of, organizations. In the former situation, tort liability can induce efficient care-taking by using liability imposed on individual risk-taker to provide direct financial incentives to those in charge of precautions. In the latter case, tort liability can induce efficient care-taking only if it ensures that the organizations who regulate risk-taking by their agents want their agents to take efficient precautions.¹³

In the case of injuries arising from the actions of autonomous individuals, tort liability often is the primary outside force operating to influence care. Thus, to regulate care, tort liability must be targeted directly at the individuals in charge of care, i.e., individual injurers. Tort liability imposed directly on individual risk-imposers provides risk-takers with a direct financial incentive to take cost-justified precautions (assuming that liability rules are optimal and that expected damages equal the harm caused by the injurer's activities).¹⁴

Tort liability performs a different function in regulating risk-taking by people operating on behalf of, and within a contractual relationship with, an organization. In this situation, tort liability is no longer the primary force regulating individuals' care-taking. Organizations also influence care-taking. Moreover, it is organizations, not the tort system, that ultimately determines the extent to which – indeed whether – tort liability influences agents. Organizations can support the goals of tort liability through

¹² See, e.g., Guido Calabresi, *THE COSTS OF ACCIDENTS* (1970); Shavell, *supra* note 1. Tort liability may serve an important deterrent function even when injurers and victims are in a market relationship if victims either under-estimate the risks imposed on them, see Michael Spence, *Consumer Misperceptions, Product Failure, and Product Liability*, 64 *REV. ECON. STUD.* 561 (1977), or face collective action problems because care is a collective good. See Arlen & MacLeod, *supra* note 7, 2003-04.

¹³ See Arlen & MacLeod, *supra* note 7, at 1988-89.

¹⁴ See, e.g., Steven Shavell, *ECONOMIC ANALYSIS OF ACCIDENT LAW*, Chap. 2 (1987). The present chapter focuses only on how vicarious liability undermines the promise of tort liability as a tool for regulating risk. It thus assumes that tort liability rules otherwise are optimal (with the due care standard set at optimal care and damages set efficiently) and then examines distortions caused by vicarious liability. This chapter also focuses on care and does not examine the impact of liability on activity levels.

incentives designed to induce due care. Alternatively, they can work against tort liability by either indemnifying sanctioned agents or hiring agents who are beyond the reach of the tort system (e.g., who are judgment-proof). Accordingly, in order for tort liability to induce individual agents to take optimal care, it must ensure that the organizations which hire them want their agents to take efficient precautions.

Beyond this, tort liability must ensure that organizations want to induce efficient precautions by using the most cost-effective means at their disposal. One potential benefit of risk-taking that occurs within an organizational framework is that organizations have more tools available for regulating agents than does the tort system. While the tort system influences care-taking using crude financial incentives tied to outcomes (e.g., accidents) alone, organizations often can regulate care-taking through a variety of mechanisms, including more finely-tuned financial incentives (e.g., based on precaution taken, and not just outcomes), monitoring, direct control over care-taking, and control over the scope of the agency relationship. Efficient regulation of risk-taking requires that the tort system provide organizations with optimal incentives to induce their agents to take efficient precautions, using the most cost-effective tools available to them for doing so.

A. Financial Incentives and Selection of Agents

Like the tort system, organizations can regulate their agents' care-taking by providing financial incentives designed to induce whatever care they desire. Organizations can use these incentives to support or erase the incentive effects of the tort system. Organizations can erase the incentives provided by tort liability by agreeing to indemnify agents for any liability they incur. Alternatively, organizations can enhance the financial incentives provided by the tort system. Organizations can impose additional sanctions on agents (including dismissal). They also often can use more finely-honed sanctions than are available to the tort system, sanctioning agents who are negligent even if no suit is brought.

Of particular importance, organizations can alter the power of the financial incentives provided by tort liability through their choice of agents. The expected cost to an agent of tort liability depends not on the damages she expects the court to impose, but instead on the damages she expects to pay. An agent's expected liability will be less than the damage award whenever she does not have enough wealth to satisfy the judgment imposed. Judgment-proof agents are a problem for the tort system because agents who do not expect to pay for the harms they cause do not invest in efficient

precautions.¹⁵ The problem of agent insolvency is particularly great when agents' wealth available to a tort judgment is sufficient low that plaintiffs' cannot profitably pursue a tort suit, even if negligence is clear.

Organizations can directly determine the expected sanction its agents bear through their decisions of whether to hire more or less wealthy agents.¹⁶ Moreover, this control over agents' wealth levels extends not only to the individuals that organizations hire, but also to organizations' decisions to use corporate independent contractors. The owner-managers of closely-held corporate independent contractors often can determine the amount of wealth available to tort claimants through their choice of whether to keep the company amply or thinly capitalized.¹⁷

Organizations thus can support or undermine the incentives provided by the tort system both through their influence over whether agents are judgment-proof and through their ability to alter the financial incentives provided by the tort system. For the tort system to achieve efficient incentives, therefore, it must ensure that organizations want to use this power to induce efficient precautions. Tort liability can do this by ensuring that organizations bear the cost of their agents' risk-taking.

B. Other Intervention

Providing organizations with proper incentives also is important because organizations can improve the efficiency of the tort system by using other mechanisms, beyond financial incentives, to induce agents to take efficient precautions.

Organizations usually can regulate agents' care-taking at lower cost than can the tort system, if they can be provided efficient incentives to do so. The tort system only has one instrument available to it to regulate care - financial sanctions. Moreover, the tort system can use only a crude form of financial incentives - sanctions imposed for negligent conduct that produces a lawsuit. Financial sanctions can be an expensive way to regulate risk-taking when agents are risk averse because agents must obtain additional compensation, beyond the expected liability, to compensate them for the risk of financial loss. This imposes an additional cost on organizations.¹⁸

¹⁵ See generally Steven Shavell, *The Judgment Proof Problem*, 6 INT'L REV. LAW & ECON. 45 (1986) (injurers will not take optimal care if they do not have sufficient wealth to pay optimal damages).

¹⁶ See Kornhauser, *supra* note 6; Sykes, *supra* note 6.

¹⁷ Cf. *infra* section IV.B.3 (discussing agent insolvency when accidents also hurt the principal).

¹⁸ See Paul Milgrom & John Roberts, *ECONOMICS, ORGANIZATION & MANAGEMENT*, at Chap. 7 (discussing sanctions when agents are risk averse).

Organizations can regulate risk at lower cost than can individual tort liability if they can induce agents to take efficient precautions using lower sanctions or no sanctions at all.¹⁹ Organizations may be able to regulate agents with lower sanctions by monitoring agents' care-taking and imposing a sanction whenever agents take inadequate precautions, even when this does not result in an actionable tort.²⁰ In addition, organizations often can directly control the level of care. They may be able to control care directly by providing the means of production, as when care depends on the quality of some durable technology used by the agent (e.g. equipment). Alternatively, the principal can control care by refusing to let the agent perform the task unless she employs the requisite equipment. In other cases, the organization can control precaution by monitoring the agents' conduct and terminating agents who take less than appropriate care.²¹

Finally, principals can affect care through their choice of whether to allocate a task to an agent (and if so, which agent) or perform the task themselves. Tort liability can enhance economic efficiency if it induces principals to perform activities themselves whenever this affords higher net benefits (net of total accident costs) than does delegating to agents (whose care-taking may be inefficient).²²

C. Efficient Tort Liability

Thus, when risks are created by people operating within agency relationships, the central role of tort liability is not to regulate risk-takers directly; rather it is to ensure that those who do regulate agents – organizations – have the right incentives to use the tools available to them to regulate agents to maximize social welfare. This implies that tort liability

If agents are perfectly informed, agents would not bear any risk should principals use a “duty based” sanction that imposes a sanction only if the agent fails to take moderate care because agents could avoid the sanction by taking moderate care. Often, however, agents do not possess costless information about optimal care: they can determine optimal care only by expenditures on expertise, and even then, they may err. See Arlen & MacLeod, *supra* note 6 (discussing expertise in the context of medical care). In such circumstances, agents face potential liability even if they behave optimally by investing optimally in expertise and attempting to take optimal care, and thus will bear the risk of any sanction imposed on them. *Id.*

¹⁹ See Milgrom & Roberts, *supra* note 18, Chaps. 6, 7, 8 (1992) (discussing methods available to principals who want to alter agents' behavior).

²⁰ See Arlen & MacLeod, *supra* note 7, at 1993-1995.

²¹ *E.g.*, Kornhauser, *supra* note 6; Sykes, *supra* note 6 (same).

²² For a discussion of principals' decisions to retain control over tasks or delegate them to agents see Phillippe Aghion & Jean Tirole, *Formal and Real Authority in Organizations*, 105 J. POL. ECON. 1 (1997); see also Arlen & MacLeod, *supra* note 6 (discussing authority in the context of managed care organizations).

must ensure that organizations want their agents to invest in efficient precautions.²³ It also must ensure that organizations benefit from employing all cost-justified measures to induce agents to take optimal care.

Organizations will want to make cost-justified expenditures on preventing accidents if they ultimately bear the full cost of the harms their agents commit because in this case principals maximize their own profits by expenditures which produce an equal or greater reduction in expected accident costs. Accordingly, to regulate organizations efficiently, tort liability must ensure that organizations treat the harms that flow from risks their agents create as their own.²⁴

IV. When Does Entity-Level Liability Matter?

The previous section suggests that in order to induce organizations to regulate risk efficiently, tort liability must ensure that organizations capable of influencing risk bear the full cost of any accidents that result from agents' carelessness. The question is, must liability be imposed directly on organizations or does liability imposed only on agents suffice.

Both agent-only (or individual) liability and entity-level liability can induce efficient behavior by organizations if they each can cause organizations to bear the full cost of their agent's risk-taking. Thus, if agents' risk-taking imposes the same costs on organizations when only the agents are liable as when the organization also can be found liable, then the decision of whether to use agent or entity-level liability will not affect the organizations' incentives to regulate risk. Accordingly, both entity-level and individual liability are efficient if agents pay expected damages equal to the harms they cause. Entity-level liability is needed, however, if agents do not have enough wealth to pay optimal damages.²⁵

A. Solvent Agents

Individual and entity-level liability provide principals with equivalent incentives to reduce risk when agents have sufficient assets to pay expected damages equal to the harms they cause, because each rule results in the principal bearing the full expected cost of its agents' torts.

²³ See Arlen & MacLeod, *supra* note 7, at 1988-89.

²⁴ Kornhauser, *supra* note 6, at 1358-59; see Arlen & MacLeod, *supra* note 6 (discussing optimal liability for torts where either the agent or the principal can directly determine the level of care).

²⁵ This result was originally established by Lewis Kornhauser and Alan Sykes. See Kornhauser, *supra* note 6; Sykes, *supra* note 6.

Under entity-level liability, the principal pays the costs directly. Under individual agent liability, the principal bears liability through the wages it pays its agents. Thus, each rule provides the same incentives to the parties.

Principals bear the costs of their solvent agents' risk-taking even when only agents are liable because principals must pay their agents additional wages equal to the expected costs of agents' liability. Agents view tort liability as a cost of agreeing to work for the principal and thus will not work for an organization unless it compensates its agents for the expected costs associated with working for the principal, including agents' expected sanctions. Thus, principals do not escape the burden of tort liability that falls on agents; they bear the burden in the form of higher wages.

This implies that when agents are solvent, the impact of liability on organizations does not depend on whether the tort system imposes liability directly on the organization or directly on the agent, because either way the organizations bears the cost of any liability imposed. In this case, the tort system can induce principals to regulate their agents efficiently, provided that expected damages equal the harm caused. Thus, when there is no risk of agent insolvency, the precise nature of the entity-level liability rule does not matter.²⁶

B. Judgment-Proof Agents

The choice between entity and individual liability does not matter when agents are solvent because it does not affect the cost to the principal of its agents' negligence in this situation. The choice of rule does matter, however, when it affects the expected costs to the principal of its agents' negligence. This is the case when agents are likely not to have enough wealth to pay efficient damage awards.

When agents do not have enough wealth to pay optimal damages, pure individual liability does not ensure that either agents or principals bear the full expected cost of agents' actions. When agents' wealth is less than the optimal damage award, expected liability imposed on agents is less than victims' expected losses. Thus, tort liability imposed on individual agents does not provide agents with efficient incentives to take care.

Beyond this, individual agent liability also does not provide principals with efficient incentives to regulate risk taking by judgment-proof agents. Principals only need to compensate agents for liability agents actually

²⁶ This is the case whenever agents cannot avoid all risk of tort liability by simply taking due care. Thus, tort liability is a cost of working for the organization if the task is complicated and agents may fail to take care by accident. See Arlen & MacLeod, *supra* note 7 (discussing negligence liability for unintentional negligence).

expect to pay. Thus, under individual liability, the cost to principals of their agents' risk-taking also is limited by their agents' wealth. Accordingly, under pure individual liability, principals who hire judgment-proof agents do not have optimal incentives to deter agents' risk-taking.

By contrast, organizations held jointly and severally liable for their agents' torts do have efficient incentives to regulate care because they bear the full amount of damages even if agents are judgment-proof. Accordingly, under entity-level liability principals should make efficient use of the tools available to them to induce agents to take optimal care.

Thus, when agents are judgment-proof, tort liability is no longer neutral with respect to whether liability is imposed only on agents or also on organizations. Organizations held directly liable for their agents' torts will regulate risk efficiently if damage awards and liability rules are efficient. By contrast, when only agents are liable, organizations with judgment-proof agents are insulated from the full costs of their agents' torts and thus will not regulate risk efficiently.²⁷

C. Risk of Agent Insolvency

Before turning to the question of whether vicarious liability is efficient in situations where agents may be insolvent, it is important to briefly discuss the degree to which agent insolvency is a serious issue. In many important situations – such as torts involving personal injury, death or serious environmental damage – agent insolvency is the rule, not the exception. Agent insolvency must be measured not with respect to existing damage rules, but rather with respect to optimal damage rules. Optimal deterrence requires that expected damages equal the cost to the victim of the harm imposed. For accidents involving serious permanent injury or death, this implies that optimal damages usually are many millions of dollars.²⁸ This exceeds the wealth of all but a handful of individual agents.

Moreover, this may understate the magnitude of the optimal award. In order to provide efficient incentives, damages must exceed victims'

²⁷ Kornhauser, *supra* note 6; Sykes, *supra* note 6. These analyses entity-level liability assume that individual liability for the underlying activity is governed by a strict liability rule. For an analysis of entity-level liability under a negligence regime *see* Arlen & MacLeod, *supra* note 6 (providing a formal proof of the neutrality proposition under a negligence regime when principals regulate agents through both incentive contracts and limitations on agents' authority).

²⁸ *See* Jennifer Arlen, *Tort Damages: A Survey*, in *ENCYCLOPEDIA OF LAW & ECONOMICS* (Boudewijn Bouckaert and Gerrit De Geest, eds.)(2000) (discussing empirical evidence that optimal deterrence damages for death and serious permanent injury exceed average existing awards); Jennifer Arlen, *An Economic Analysis of Tort Damages for Wrongful Death*, 60 *NYU L. REV.* 1113 (1985).

expected losses whenever negligent agents often are not sued.²⁹ Damage awards in these cases must equal a multiple of victims' expected losses, where the multiplier is based on the probability that a wrongdoer avoids liability.³⁰ The use of extraordinary sanctions heightens the likelihood that individual agents will be unable to pay optimal damage awards.

Accordingly, in considering optimal tort rules for accidents involving serious permanent injury, death, or serious environmental harm it is appropriate to assume that individual agents cannot pay optimal damages. Pure agent liability, therefore, will not provide organizations with efficient incentives to regulate these important risks. In order to provide organizations with efficient incentives to regulate risk-taking, the tort system must employ an efficient rule governing entity-level liability.

V. Impact of Vicarious Liability on Organizational Structure

This Section examines vicarious liability, the rule that usually determines the scope of organizational liability. Vicarious liability is a hybrid between a regime of pure agent liability and an entity-level liability regime. It holds principals liable for torts committed by some agents within the scope of their agency relationship, but only those agents who are "servants," having granted their principals the right to control the physical conduct of their performance. Principals who hire independent contractors usually are not liable for their torts, even when they knew that the independent contractor could not pay its foreseeable tort liability.³¹

²⁹ Medical malpractice is probably the best documented area of under-litigation. *E.g.*, Lori Andrews, et al, *An Alternative Strategy for Studying Adverse Events in Medical Care*, 349 LANCET 309 (1997) (on-site observation of hospital error found that while 480 of the 1047 patients treated were injured by their medical treatment, with 17.7% of these patients suffering serious injury, only 13 of these patients filed claims); Paul Weiler, MEDICAL MALPRACTICE ON TRIAL, 12-13 (1991) (*Harvard Medical Practice Study* found that only one in eight potentially valid medical malpractice claims was actually filed; in the case of serious injuries, only approximately one claim was filed for every three serious injuries.).

³⁰ Gary Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968) (where wrongdoers may avoid liability, the optimal sanctions equals H/p , where H is the harm caused and p is the probability that a wrongdoer will be held liable). Thus, for example, if only one in eight victims of negligence recover, the damage award imposed when an injurer is held liable must equal eight times the victim's expected harm, in order to ensure that each potential injurer's bears expected costs equal to the victim's harm for each injury he causes.

³¹ RESTATEMENT (SECOND) OF AGENCY § 2 (1958). Principals may be liable for torts of independent contractors in special circumstances, such as where the principal was subject to a non-delegable duty to take care to protect the plaintiff. Nevertheless, these exceptions to the general rule do not undermine the central argument of this chapter, since many areas where principals use independent contractors fall outside these exceptions. In

Some law and economics scholars have defended the “control” requirement for vicarious liability as being either benign or potentially beneficial. The basic intuition behind this support for vicarious liability appears to be as follows. Organizational liability is important only when agents are insolvent, and then only when organizations can affect their agents’ risk-taking. When agents are insolvent, however, organizations cannot easily regulate them through financial sanctions. Organizations often can affect risk-taking only if they can directly control or monitor agents’ behavior. Consequently, a rule that holds organizations liable only when they can directly control or monitor agents’ behavior focuses liability on those circumstances where organizations can affect care and avoids imposing liability when organizations cannot affect care.³²

This analysis has numerous weaknesses. A well-known weakness is that it fails to recognize that organizations also should bear liability in order to optimally regulate their activity levels. Beyond this, however, this chapter shows that there are additional problems with this argument.

The preceding analysis focuses on the effect of vicarious liability only after an organization has hired the agent, but does not consider the effect of vicarious liability on organizations’ choice of both how to hire an agent (as an employee or not) and which agent to hire. Independent contractor relationships are not set in stone. They are a product of choice. Thus, to be efficient, vicarious liability must not only be efficient as applied to existing independent contractor relationships, it also must provide efficient incentives for principals to establish efficient principal-agent relationships. Principals must be induced to use independent contractor relationships only when these are efficient. They also must have efficient incentives when determining which agents to hire – in particular, when determining whether to hire more or less judgment-proof agents.

Vicarious liability fails on both of these scores. Vicarious liability distorts organizations’ decisions on how to structure their agency relationships, providing them with excessive incentives to hire agents as

addition, principals can be held liable for independent contractors if there is an apparent master-servant relationship. We do not consider this rule since well-advised principals usually can avoid liability based on ostensible or implied authority by taking actions to ensure that third parties know that the agent is an independent contractor.

³² Landes & Posner, *supra* note 5 (supporting limiting liability to principals who exert direct control on the grounds that principals are not in a good position to supervise inputs used by independent contractors and thus should not be liable for the latter’s torts); Richard Epstein & Alan O. Sykes, *The Assault on Managed Care: Vicarious Liability, ERISA Preemption, and Class Actions*, 30 J. LEGAL STUD. 625, 638-41 (2001) (defending the rule that exempting MCOs from liability for independent contractor physicians even though MCOs influence care directly through utilization review and indirectly through financial incentives because the ultimate care decisions rests with physicians).

independent contractors even when this is not efficient. Indeed, in its impact on organizational form, vicarious liability can be worse than an agent-only liability regime, because vicarious liability actively discourages principals from asserting control over agents even when it otherwise would be in their interests to do so.

Vicarious liability also is inefficient because it encourages firms to hire thinly-capitalized independent contractors, because they can reduce their expected liability through the use of judgment-proof non-employee agents.

Finally, defenders of vicarious liability do not adequately address the negative impact of agent-only liability for independent contractors on organizations' incentives to regulate their independent contractors. Insulating organizations from liability for their independent contractors' torts provides organizations with insufficient incentives to reduce their agents' risk-taking. Organizations may even encourage their agents to take excessive risks whenever they benefit from their agents' risk-taking but the costs fall on third parties.

A. Nature of Vicarious Liability

Vicarious liability holds principals liable for agents' torts – jointly and severally with agents – in those cases, but only in those cases, where the principal and the agent were in a “master-servant” relationship. The determination of whether a principal-agent relationship is a master-servant relationship generally turns on whether the principal “controls or has the right to control the physical conduct of the [agent] in the performance of the service.”³³

Courts have struggled with what it means for a principal to “control” an agent. Generally, courts have not determined control based on whether the principal can influence the agent's conduct – such as through financial incentives – but instead have focused on whether the principal can exert direct physical control over the agent. Accordingly, the master-servant test permits principals to exert some form of influence without being deemed “masters,” and only predicates entity-level liability on particular forms of influence, those associated with more direct control. Thus, for example, a court is very likely to hold that a principal is a master if it supplies the instrumentalities or place of the work or directly supervises the agent on-site. By contrast, a principal who hires an agent to work off-site, using

³³ RESTATEMENT (SECOND) OF AGENCY, §2 (Master; Servant; Independent Contractor) (1958). *See supra* note 31 (discussing situations where principals may be liable for torts of independent contractors).

instrumentalities supplied by the agent is unlikely to be deemed a master, even if the principal uses financial incentives to influence the agents' behavior.³⁴ Accordingly, vicarious liability in effect imposes entity-level liability only on principals who attempt to control agents directly (or monitor them), and agent-only liability when principals regulate agents only through financial incentives.

B. Impact of Vicarious Liability on Incentives to Assert Control

This part examines the effect of vicarious liability on principals' incentives to assert control over agents. To do so, it compares the incentives vicarious liability provides principals with the incentives principals would have if they bear the costs of their agents' torts directly (where the latter are efficient). Because the rule governing entity-level liability matters most when agents cannot pay for the harms they cause, this part assumes that agents are judgment-proof. We compare the decisions a principal would make regarding how to hire judgment-proof agents under vicarious liability with those of a principal who bears the cost of the harms its agents cause.

To compare the two situations, we use a simple example. Assume that a principal hires a risk neutral agent³⁵ (with wealth of 60) to do a project that could cause 160 in harm. Assume that the probability of harm depends on how much the agent invests in care, as shown in Table One. The principal determines how much care it wants its agents to take based on the cost to it of its agent's risk-taking.

Table One shows the relationship between the agent's expenditures on care and the total expected cost to society of the agent's activities, as given by the cost of care plus the resulting expected cost of accidents. Social welfare is maximized when agents take the level of care that minimizes total accident costs (as given by column six). In this case, this implies that

³⁴ RESTATEMENT (SECOND) OF AGENCY § 2, cmt. c. *See supra* note 31 (discussing situations where principals may be liable for torts of independent contractors).

³⁵ In the examples, we focus on risk neutral agents (who care only about the expected cost of their actions and not the variance in their wealth) both to simplify the discussion of the basic issues and because the concerns raised by vicarious liability are particularly great in the large number of situations where principals hire corporate agents as independent contractors to perform tasks that are an essential part of the principals' business. These corporate independent contractors are likely to be effectively risk neutral if their owners have diversified shareholdings. Allowing for agent risk aversion would not change our fundamental conclusions about the distorting effects of vicarious liability. Indeed, the penalty vicarious liability imposes on the use of control is more costly when agents are risk averse because agent risk aversion increases the costs of using financial incentives instead of control to regulate agents. *See* Milgrom & Roberts, *supra* note 18, Chap. 7 (discussing the costs of financial sanctions when agents are risk averse).

total costs are minimized when the agent takes moderate care of 3. While the agent could further reduce expected accident costs by increasing care to 6, it would be wasteful to get him to do so, because increasing care by 3 would only yield an expected gain of 2 (*i.e.*, 10-8) in reduced expected accident costs.

TABLE ONE
Social Costs of Risk-Taking

Level of Care	Cost of Care	Prob. of Accident	Cost of Accident	Expected Accident Costs	Total Expected Costs
None	0	1/10	160	16	16
Low	.8	1/12	160	13.33	14.13
Moderate	3	1/16	160	10	13
High	6	1/20	160	8	14

Observe that Table One shows that it would be efficient for the agent to take moderate care even if the only way to get the agent to spend anything on care is to invest \$1 in directly controlling his behavior. Moderate care is still efficient because the cost of moderate care (with control) is 14, which is less than the cost of having no control, 16 (or control with low or high care, which is 15.13 and 15 respectively).

1. Principal Bears Costs of the Agents' Risks

Consider a principal who expects to bear the costs of its agent's risk-taking directly. Assume, for example, that any accident would cause environmental damage to land the principal needs to use. Alternatively, assume that the harm falls on third parties but the principal is liable for all its agent's torts.

In this situation, the principal bears all the costs associated with its agent's activities. It bears accident costs directly; it bears the costs of care through its wage obligations to its agents. Thus, the principal's expected costs equal the social costs of its agent's activities, as given by column 6. The principal thus can minimize its costs by inducing the agent to take efficient (*i.e.*, moderate) care.

The principal will use its available tools to attempt to induce the agent to take moderate care. In some cases, the principal can induce its

agent to select moderate care by imposing financial penalties for agent negligence. Yet financial incentives alone are not always sufficient, particularly when agents have limited assets. Financial sanctions do not provide judgment-proof agents with sufficient incentives to invest in care, because they directly bear the costs of care, but bear little expected cost from sanctions (since their wealth is so low). In this case, principals can regulate agents more effectively by supplementing sanctions with other methods, including direct control over care (or monitoring supplemented by sanctions).³⁶ Accordingly, when principals bear the costs of their agents' harms, a principal hiring a judgment-proof agent often is better off asserting more direct control over care by hiring the agent as an employee and directly dictating the level of care.

TABLE TWO
Agent Has Wealth of 60

Level of Care	Cost Care	Prob. Of Accident	Max. Sanction	Expected Sanction	Total Expected Costs
None	0	1/10	60	6	6
Low	.8	1/12	60	5	5.8
Moderate	3	1/16	60	3.75	6.75
High	6	1/20	60	3	9

This can be illustrated by considering a principal who plans to hire an agent with wealth of 60.³⁷ If the principal hires the agents and relies only on financial incentives, the agent would face the following costs as given in Table Two. Because the agent's expected sanction is so low (see column

³⁶ Financial incentives also are not optimal when principals are risk neutral, agents are risk averse and cannot take actions to avoid the sanction. All else equal, in this case it would be optimal to impose ex post costs on principals, not agents, because risk is costly to agents but not principals. Thus their joint welfare is higher when the principal bears the risk. *See generally* Milgrom & Roberts, *supra* note 18, at 216-218.

³⁷ In fact, principals can reduce the problem of agent insolvency by paying large upfront wages designed to increase the sanction available to the principal should the agent fail to take optimal care. *See* Milgrom & Roberts, *supra* note 18, at 363 (discussing efficiency wages). This is an expensive way to regulate agents because this wage must be paid to all agents, and hence principals often find it more cost-effective to monitor agents.

five), he will only take low care, even though the principal wants him to take moderate care, because the agent's expected liability is not large enough to justify additional expenditures on care.

When the principal bears the full costs of the agent's torts, the agent's low care hurts the principal by subjecting it to expected costs of \$14.13 instead of \$13 (see Table One). The principal, thus, may seek additional ways to regulate the agent. The principal may decide to exert direct control over care-taking by hiring the agent as an employee, if it can assert control for less than \$1.13. A principal who bears the cost of its agent's harms will use employment relationships whenever the resulting net benefit of the reduced risk exceeds the costs of exerting control.

2. Principals' Behavior Under Vicarious Liability

While a principal with efficient incentives will assert control when it is efficient to do so, a principal governed by vicarious liability will not. Moreover, vicarious liability is particularly likely to deter organizations from asserting control when control is most likely to be efficient: when financial incentives are ineffective because agents do not have enough wealth to pay for the harms they cause.

Under vicarious liability, a principal that asserts control is liable for the full costs of any its agents' torts whereas a principal which eschews the right to control its agents pays only for its agents' expected liability as limited by their wealth. Accordingly, when agents are judgment-proof, vicarious liability penalizes principals which assert control by enhancing their expected liability for any torts that occur by the amount of their agents' unfunded liability (by the amount that their expected liability exceeds their expected capacity to pay). This liability enhancement effect deters the efficient use of control if it exceeds the benefit a principal derives from the deterrent impact of control on the expected number of torts.³⁸ As the liability enhancement effect is greater the lower agents' wealth, vicarious liability is particularly likely to deter principals from asserting control when control is most valuable – when agents have very little wealth (and thus financial incentives are least effective).³⁹

³⁸ Cf. Arlen & Kraakman, *supra* note 5, at 706-712 (showing that strict entity-level liability can deter corporations from using monitoring and reporting to regulate agent wrongdoing if the liability enhancement effect from the greater expected liability occasioned by monitoring and reporting exceeds the deterrent effect from the impact of monitoring and reporting on the expected amount of agent wrongdoing).

³⁹ Compare with Richard Brooks, *Liability and Organizational Choice*, 45 J. LAW, ECON. & ORGAN. 91 (2002). Professor Brooks found that oil companies reduced their use of independent contractor shippers after sanctions for spills increased. This could happen under vicarious liability if the deterrent effect exceeds the liability enhancement effect, even when principals can control agents' solvency. Nevertheless, it should be noted that the

TABLE THREE
Principal's Expected Costs When Agent Has Wealth of 60

Level of Care	Cost Care	Prob. Of Accident	Expected Costs for Employee (including control)	Expected Costs for Independent Contractor
None	0	1/10	16	6
Low	.8	1/12	15.13	5.8
Moderate	3	1/16	14	n/a
High	6	1/20	15	n/a

Consider our example, only now assume that risks fall on third parties and that the principal's liability is governed by vicarious liability. For simplicity assume that liability for the underlying activity is governed by strict liability.⁴⁰ The expected costs and benefits to the principal of hiring the agent under vicarious liability are presented in Table Three. As shown in column four, if the principal hires the agent as an employee it assumes full liability for the agent's torts. While the principal can use control to induce the agent to take moderate care (thereby reducing the probability of an accident), asserting control is costly. The principal now must pay for care, control, and the full costs of any torts that do occur. The principal, in

legal regime that Brooks studied, however, is not a vicarious liability regime as defined in this chapter. According to Brooks, in many states oil companies face liability for torts of their shippers even when they employ independent contractors. Specifically, 10 states (including California and Alaska) impose liability on the cargo owner regardless of whether the shipper is an independent contractor. Moreover, courts in other jurisdictions concluded that oil companies retain sufficient control to be liable for their shippers torts. *Id.* at 104. Finally, many states regulate the financial well-being of the shipper, thereby limiting the magnitude of the unfunded liability. *Id.* at 100. Thus, as oil companies are unable to use independent contractors to externalize risk to the degree permitted by vicarious liability, they can be expected to respond to increased sanctions by exerting control in order to reduce the risk of an accident.

⁴⁰ Our analysis would apply as well to negligence liability when agents who endeavor to take optimal care nevertheless may be negligent, for example because they do not always know whether they are taking optimal care. For a discussion of optimal negligence liability when the risk-imposer may be negligent accidentally because she is not perfectly informed about the costs and benefits of the actions she may take, but is able to reduce the probability of error through investing in expertise, see Arlen & MacLeod, *supra* note 6; Arlen & MacLeod, *supra* note 7.

other words, must assume the full costs of its activities (as in Table One), including the costs of control.

By contrast, if the principal hires an independent contractor it does not have to assume the full cost of its activities. Instead, it bears only that independent contractor's costs (as given in Table Two). This ability to avoid its independent contractor's unfunded expected liability may reduce the principal's per-accident costs to such a degree that the principal is better off using the independent contractor relationship, even though this means facing a higher risk of tort liability because it cannot induce more than low care using financial incentives alone (as is shown in Table Three).

Thus, vicarious liability creates perverse incentives for principals to prefer independent contractors over employees when the risks fall primarily on third parties in the very situation where control might be most socially beneficial, where agents are judgment-proof. Accordingly, as a result of vicarious liability, principals who could induce efficient care-taking by agents will fail to do so, allowing agents to take excessive risks to the detriment of society. Thus, the principal in Table Three hires its judgment-proof agents as independent contractors, even though this means that it must accept a greater probability of accident, because any effort to attempt to control care through the use of control subjects the principal to full liability for any torts its agents cause.⁴¹

Beyond this, vicarious liability distorts principals' incentives to regulate its independent contractors (as is discussed below). From Table Three we see that while the principal wants its agents to take optimal care when it is liable for its agents' torts, it does not want agents to take optimal care when only the agent is liable (as can be seen from column six of Table Two). The principal, thus, no longer wants the independent contractor to take optimal care because it now faces the same net expected costs of care as the judgment-proof agent. Thus, if the agent does not face sufficient

⁴¹ Consistent with this, evidence suggests firms often alter their internal structures to shift certain dangerous activities onto temporary contract workers, who they hire through independent contractors. Principals may leave these corporate independent contractors in charge of training and supervision even though evidence suggests independent contractors are less effective at training people to work for the firm than is the firm itself. Organizations employ this inefficient structure to enable them to treat these on-site contract workers as independent contractors in order to reduce their expected liability. *See, e.g.,* James B. Rebitzer, *Job Safety and Contract Workers in the Petrochemical Industry*, 34 INDUS. RELATIONS 40 (1995) (showing how the petrochemical industry sought to insulate itself from liability for workplace accidents by hiring contract workers and assigning all training and supervision of these workers to off-site independent contractors less capable of regulating safety). Principals' excessive incentives to employ independent contractors are exacerbated by employee benefit and tax laws that impose significant financial burdens on principals who hire employees that can be avoided by hiring independent contractors.

liability to warrant taking precautions, the principal does not bear sufficient costs to want the agent to take precautions.

3. Disincentive to Assert Control

Vicarious liability not only is inefficient when compared with a regime that ensures principals bear the costs of harms they cause, in some cases it may even be worse than a regime in which entities are never liable. Vicarious liability may be worse than pure agent liability in those situations where principals governed by pure agent liability might nevertheless have incentives to exert direct control over agents' care-taking, even when agents are judgment-proof.

Principals often will want to deter agents' risk-taking because they also may be injured by agents' negligence. For example, careless agents may destroy the principals' property as well as harming a third party; principals also may suffer reputational penalties when their agents are negligent and injure third parties. In such situations, principals can reduce their expected costs by reducing the risk of harm, even if they are not liable for their agents' torts.

Principals often can best reduce risk by hiring agents as employees, particularly when it must hire agents who cannot pay for the harms they may cause. In this case, a principal who wants to induce care may be best off bringing the agent within the firm, so that it can use direct control or monitoring to supplement any financial incentives.

Yet vicarious liability penalizes principals which hire agents as employees by causing them to be liable for harms to third parties in addition to harms to themselves. This may result in a principal paying more when it asserts control than when it does not, even though total social costs are minimized when it asserts control. As a result, a principal which might assert control to regulate care-taking under pure agent liability may eschew control under vicarious liability if the cost of their agents' unfunded liability dwarfs the benefits of control.

To see this, return to our example where accidents result in a cost of 160, but assume that the principal bears 110 and the third party bears 50 of any accident costs. For simplicity, assume that the agent has no wealth and thus would not take care if hired as an independent contractor. Assume, however, that the principal could induce care (low, moderate or high care) by hiring the agent as an employee and spending \$1 to assert direct control over care.

The situation facing the principal under pure agent liability is presented in Table Four. Although the principal does not bear the full cost of its agent's harms, it nevertheless will use control to reduce risk because this enables the principal to reduce its expected costs (including the costs to

it of its agent's negligence). Indeed, in the present example, the principal will use control to induce agents to take efficient care (moderate care), although it may not in other circumstances.

TABLE FOUR
Pure Agent Liability

Level of Care	Cost Care (control)	Exp'd Accident Costs	Expected Social Costs	Exp'd Costs: Hire Employee	Exp'd Costs: Independent Contractor
None	0	16	16	11	11
Low	.8 (+ 1)	13.33	15.13	10.96	n/a
Moderate	3 (+ 1)	10	14	10.87	n/a
High	6 (+ 1)	8	15	12.5	n/a

By contrast, as shown in Table Five, under vicarious liability the principal will not hire the agent as an employee because vicarious liability forces the principal to pay for the third parties' costs if he asserts control but not otherwise. Because in the present example the cost to the principal of paying for the agents' unfunded liability exceeds the benefit of reducing accidents, the principal will hire the agent as an independent contractor (paying expected costs of 11 for an agent who takes no care) rather than hiring the agent as an employee (paying expected costs of 14 for an agent who takes efficient care). In this situation, a switch from pure agent liability to vicarious liability thus reduces social welfare by deterring principals from taking cost-effective measures to reduce risk.

Indeed, the inefficient effect of vicarious liability may be even greater than this analysis suggests because a principal which hires an independent contractor may be able to use financial incentives to increase the care its agents take to avoid harm to itself, while leaving third parties vulnerable to its agent's carelessness. In these circumstances, principals may be able to use independent contractor relationships at little cost to themselves, but potentially great cost to society.⁴²

⁴² MCO contracts with physicians are examples of these types of contracts. Physicians can impose costs on both patients (through error) and MCOs (through providing excessively costly treatment). MCOs, which are not liable for the medical negligence of their independent contractor physicians, currently use financial incentives to induce physicians

TABLE FIVE
Vicarious Liability

Level of Care	Cost Care (control)	Exp'd Accident Costs	Expected Social Costs	Exp'd Costs: Hire Employee	Exp'd Costs: Independent Contractor
None	0	16	16	11	11
Low	.8 (+ 1)	13.33	15.13	15.13	n/a
Moderate	3 (+ 1)	10	14	14	n/a
High	6 (+ 1)	8	15	15	n/a

C. Incentives to Hire Judgment-Proof Agents

The perverse effects of vicarious liability on principals' incentives to regulate agents through the use of control are even greater than the preceding analysis suggests because vicarious liability encourages principals to avoid liability for their agents' torts both by hiring agents as independent contractors and selecting agents who are less vulnerable to tort suit.

Principals can affect their agents' care-taking both through how they structure their relationships (as independent contractors or employees) and through their choice of which agents to hire (more or less judgment-proof). An important test of a liability rule is whether it provides principals with efficient incentives in their choice of agents.

Vicarious liability discourages principals from hiring insolvent agents as employees because principals bear the full cost of their employees' torts (unaffected by agents' wealth) but only pay for independent contractor torts up to the independent contractors' ability to pay. Yet a principal which hires an independent contractor may reduce its expected costs by hiring one with very little wealth because this also reduces the expected burden to the principal of tort liability. Moreover, the principal's ability to reduce its expected cost by hiring thinly-capitalized independent contractors enhances the benefit to principals of independent contractor relationships, increasing principals' incentives to make inefficient use of independent contractors.

to avoid excessively costly treatment, but do not employ sanctions to punish physicians who provide suboptimal care.

Vicarious liability thus provides principals with perverse incentives to make inefficient use of independent contractors, and to hire those who are less financially solvent (and thus particularly difficult to regulate).

To see this, return to our example, and assume that the costs of the agent's torts are borne by third parties. A principal trying to decide whether to use an employee or independent contractor will compare the expected costs of an employee with those of an independent contractor, bearing in mind that it can use its choice of which independent contractor to hire to further reduce its tort liability. Indeed, the principal may be able to reduce its expected costs dramatically by hiring an independent contractor who is completely judgment-proof, thereby eliminating all costs resulting from its agent's torts. This will increase the principal's profits relative to hiring either an employee or hiring an independent contractor with wealth 60, at the expense to the third parties who bear the greater risks associated with the insolvent independent contractors' expected failure to take care.

TABLE SIX
Vicarious Liability When Agent Has Zero Wealth

Level of Care	Cost Care (control)	Exp'd Accident Costs	Expected Social Costs	Exp'd Costs: Hire Employee	Exp'd Costs: Independent Contractor
None	0	16	16	11	0
Low	.8 (+ 1)	13.33	15.13	15.13	n/a
Moderate	3 (+ 1)	10	14	14	n/a
High	6 (+ 1)	8	15	15	n/a

Accordingly, rather than inducing principals to adopt efficient mechanisms to regulate agents' risk-taking, vicarious liability distorts principals' behavior. First, principals now gain from hiring insolvent agents, provided they hire them as independent contractors instead of as employees. Second, principals who have hired independent contractors benefit from hiring agents who are particularly difficult for the tort system to regulate – those that are judgment-proof.

D. Vicarious Liability Predicated on Capacity to Control

The perverse effects of vicarious liability could be reduced if courts abandoned their focus on whether the organization in fact has the capacity to directly control the agent, and instead predicate entity-level liability on whether an organization could have structured its relationship with the agent to allow it to influence the agent's behavior, regardless of whether it actually did so. This approach would remove the disincentive to exert control, because entity-level liability would depend (in theory) on factors beyond a principal's control, and not on a principal's actual decision of whether to exert control. In other words, the nature of the potential relationship would determine liability, not the nature of the actual relationship. Principals held liable whenever they could have hired the agent as an employee, even if they do not, would no longer have an incentive to hire agents as independent contractors when it is not efficient for them to do so. This could induce principals to make an efficient choice of whether to hire an agent as an independent contractor or not.⁴³

While this approach is superior to the existing rule, it does not remedy all the problems caused by vicarious liability. First, courts are not well equipped to determine capacity to control independent of the actual exercise of control since this depends on whether it would have been efficient for the principal to structure its relationships with its agents in some way other than the way it did. It is often hard to determine whether the principal chose not to exert control because it was seeking to hide behind the protections afforded by pure agent liability, or whether it did not do so because it could not assert control in a cost-effective way.

In addition, even if courts could determine capacity to control accurately, this rule would not be efficient because it still enables principals who hire independent contractors to avoid the costs of third party torts, even when principals can influence care-taking through their choice of agent and through financial incentives. This rule would still provide incentives for principals which do hire independent contractors to hire thinly-capitalized independent contractors and would not induce them to invest in inducing agents to take efficient care.

VI. Regulating Agents' Care When Direct Control is Inefficient

The preceding analysis shows that the current regime of vicarious liability provides principals with inefficient incentives to externalize risk by

⁴³ Alan O. Sykes, *The Economics of Vicarious Liability*, 93 YALE L. J. 1231, 1262 n. 78 (1984).

hiring agents as independent contractors and selecting thinly capitalized independent contractors, even when this reduces the ability of both principals and the tort system to deter agents from taking excessive risks. Beyond this, vicarious liability also affects how principals structure their independent contractor relationships.

To be efficient, an entity-level liability regime must not only provide efficient incentives to principals to choose between hiring agents as employees and as independent contractors, it also must ensure that principals structure their independent contractor relationships efficiently. This implies that entity-level liability must ensure that principals capable of influencing agents' risk-taking bear the full costs of their agents' torts. Vicarious liability fails to satisfy this goal because it exempts principals from entity-level liability for their independent contractors' torts even when agents are judgment-proof.

It might appear that this rule of agent-only liability for independent contractors is benign as applied to situations where the principal would have hired an independent contractor even under a pure entity-level liability regime. After all, in this situation the principal can only regulate agents through financial incentives and would appear to be no better able to do this than the courts. This argument is incorrect. First, principals usually have more tools available to them than courts, because they can affect risk-taking through their selection of independent contractor and their choice of whether to use an independent contractor or do the job themselves. Second, principals which use financial sanctions often can use them more effectively than can courts. Thus, for both reasons, efficient regulation of independent contractors requires that tort liability provide efficient incentives to the organizations that hire them.

As previously discussed, principals can determine the effectiveness of financial sanctions through their choice of agent. Thus, even if principals could not increase care-taking, the rule exempting principals from liability for independent contractors would be inefficient because under this rule principals benefit from selecting judgment-proof independent contractors because agents who cannot pay for tort judgments will charge less than those who can. Thus, this rule operating in concert with market forces pushes principals to hire less wealthy independent contractors who are less susceptible to the incentive the tort system provides to take care.⁴⁴

Moreover, even when principals cannot alter their choice of agent, agent-only liability for independent contractors is inefficient because it does not provide principals with efficient incentives to use financial incentives to regulate agents in those circumstances when principals are better able than

⁴⁴ See *supra* section IV.C.

courts to carry out this task. Principals have a larger portfolio of sanctions, including dismissal and control over promotion that in some cases provide more powerful motivation than monetary sanctions alone.⁴⁵

In addition, principals can make more effective use of financial sanctions than can courts if they have better information on agents' care-taking. Principals often can sanction agents who take insufficient care even if no harm results. This greater probability of sanction allows the principal to provide efficient incentives using a lower sanction, which the agent is more likely to be able to pay. Thus, in our example, a principal able to sanction an agent whenever she takes low care could induce an agent with wealth of 60 to take moderate care with a sanction as low as 2.3, because the cost of moving from low care to moderate care is 2.2. Thus, principals who can observe agents' conduct better than can courts may be able to induce optimal care even when agents cannot pay optimal tort damages.⁴⁶

Yet principals will only use this power to provide efficient financial incentives if they bear the cost of their agents' risk-taking.⁴⁷ As principals governed by vicarious liability do not bear the costs of independent contractors' risks, this rule fails to provide them with efficient incentives to use of their greater ability to regulate their independent contractors.

Finally, when agents are insolvent with respect to optimal damages, vicarious liability leads principals to make inefficient decisions with respect to whether to perform the task directly or allocate it to the agent, in those circumstances where principals subject to vicarious liability hire agents as independent contractors. The principal should use agents when this maximizes social welfare and should do the task itself when this affords the highest net welfare. Thus, it often may be optimal for a principal to perform the task herself if she would be forced to hire judgment-proof independent

⁴⁵ Sykes, *supra* note 43, at 1253-54. Beyond this, principals may be able to use efficiency wages to reduce the problem of agent's insolvency, paying agents above market wages in order to increase agents' incentives to take the care necessary to save their jobs. *Id.* at 1248. For a general discussion of efficiency wages see Milgrom and Roberts, *supra* note 18, at 250-259.

⁴⁶ See Milgrom & Roberts, *supra* note 18, at 226-28 (discussing monitoring and the informativeness principle).

Principals also may be better able to regulate agents than can courts even if principals cannot observe agents' care, but can observe when accidents occur. Principals may be able to use sanctions to provide agents with optimal incentives if they can detect accidents resulting from negligence even when victims do not sue. See Arlen & MacLeod, *supra* note 7, at 1939 (discussing data showing that the majority of patients injured by medical negligence do not sue). In such cases, organizations can use financial incentives more effectively than can courts by increasing the threat of sanction, thereby imposing greater expected liability for negligence. See Arlen & MacLeod, *supra* note 7.

⁴⁷ *Cf.* Arlen, *supra* note 5 (a central purpose of entity-level liability is to induce principals to take measures to increase the probability wrongful agents are sanctioned).

contractors, who are difficult to regulate. Vicarious liability, however, encourages principals to delegate tasks to independent contractors in those circumstances where the risks of doing so are greatest – when the independent contractor is judgment-proof – because principals can externalize the costs of the risk by hiring an insolvent independent contractor. Accordingly, vicarious liability is least effective at inducing principals to avoid delegating tasks to agents when it is particularly important that they not do so: when the social benefits of agents' activities is likely to be lowest because agents' care-taking is not effectively regulated by either the threat of tort liability or by principals.

VII. Conclusion

Organizations profit from hiring people to perform tasks that impose risks on all of us. While organizations can reduce the amount of this risk, they will not do so unless they profit from inducing their agents to take cost-effective care. A properly designed tort system can provide organizations with the necessary incentive to employ the tools at their disposal to reduce their agents' risk-taking. Tort liability can induce organizations to care about harms to others by ensuring that they bear the costs of these harms. Because agents often are judgment-proof, tort liability can guarantee that organizations bear the full cost of their agents' harms only if it imposes liability directly on organizations for injuries resulting from their agents' negligence.

Vicarious liability does not hold organizations liable whenever they can influence care, either through their choice of agent, control, monitoring or financial incentives. Instead it predicates the imposition of liability on a showing that an organization could exert direct control over the agent. This control-based test is inefficient. By imposing entity-level liability on principals who assert control but not on those who do not, vicarious liability deters principals from using employee relationships in the very situation where they are most needed – when agents are hard to control efficiently through financial incentives alone. Vicarious liability, thus, causes principals to avoid any actions that might be viewed as control even if control is the most cost-effective means to deter excessive risk-taking. This results in organizations making excessive use of independent contractor relationships.

Beyond this, vicarious liability distorts independent contractor relationships by insulating principals from liability for their independent contractors' torts even when principals are better able to regulate independent contractors' care-taking than are courts. This rule encourages principals to favor thinly-capitalized independent contractors because

thinly-capitalized independent contractors can charge less to assume risk. The rule also does not provide principals with adequate incentives to use financial sanctions to induce their independent contractors to take efficient care because it insulates them from full liability for judgment-proof independent contractors' torts. Principals insulated from tort liability have the same incentives as the judgment-proof agents to induce care to avoid harms to third parties. Thus, when agents' wealth is sufficiently low tort liability is of little consequence, principals have little reason to encourage agents to take precautions to protect third parties, even when they are capable of doing so. Indeed, under this rule, principals instead can use incentives in ways that increase risk-taking (e.g., by encouraging extra speed or reduce costs), without fear of paying for the consequences to victims of their actions.

Accordingly, a society that wants to use market forces to regulate organizations' risk-taking cannot rely on a rule of vicarious liability to govern organizations' liability for their agents' torts. This rule fails to induce organizations to regulate risk efficiently, and can even be worse than no entity-level liability at all. A central focus on torts scholarship should be on determining the proper scope of organizational liability for agents' torts.