Why the Legal System Is Less Efficient than the Income Tax in Redistributing Income

(Article begins on next page)

Why the Legal System Is Less Efficient than the Income Tax in Redistributing Income
Author(s): Louis Kaplow and Steven Shavell
Source: *The Journal of Legal Studies,* Vol. 23, No. 2 (Jun., 1994), pp. 667-681
Published by: The University of Chicago Press
Stable URL: http://www.jstor.org/stable/724462
Accessed: 16/02/2010 19:37

WHY THE LEGAL SYSTEM IS LESS EFFICIENT THAN THE INCOME TAX IN REDISTRIBUTING INCOME

LOUIS KAPLOW and STEVEN SHAVELL*

I N economic analysis of law, normative judgments about legal rules are usually based on the rules' efficiency, regardless of their effects on the distribution of income. As a consequence, the economic approach is often criticized. Such criticism would be moot if the income tax system—understood here to include possible transfer payments to the poor—could be used freely to achieve any desired distribution of income. But income taxes and transfer payments distort incentives to work, limiting the degree to which it is socially desirable to employ the income tax system to redistribute income. The question therefore arises whether legal rules[1] should be used to take up some of the slack and promote distributional objectives,[2] even if at a sacrifice to efficiency.

In this article, we develop the argument that redistribution through legal rules offers no advantage over redistribution through the income tax system and typically is less efficient.[3] The reason is that using legal

[1] For purposes of this article, the term "legal rules" refers to rules other than those that define the income tax and welfare system.

[2] Our discussion concerns the overall distribution of income or wealth, not entitlement to payment based on desert.

[3] The first model establishing this point is in Steven Shavell, A Note on Efficiency vs. Distributional Equity in Legal Rulemaking: Should Distributional Equity Matter Given Optimal Income Taxation? 71 Am. Econ. Rev. 414 (1981). A related argument is made in Aanund Hylland & Richard Zeckhauser, Distributional Objectives Should Affect Taxes but Not Program Choice or Design, 81 Scand. J. Econ. 264 (1979). (For extensions and further applications, see Louis Kaplow, Should the Government's Allocation Branch Be Concerned about the Distortionary Cost of Taxation and Distributive Effects? (Discussion Paper No. 137, Harvard Law School Program in Law and Economics 1993).)

It does not appear, however, that the point is understood in legal academia. See, for

rules to redistribute income distorts work incentives fully as much as the income tax system—because the distortion is caused by the redistribution itself—and also creates inefficiencies in the activities regulated by the legal rules.

To illustrate, suppose that high-income individuals are subject to an income tax of 30 percent and that, in principle, further redistribution to the poor would be desirable. Would we want to adopt an inefficient legal rule because it redistributes an additional 1 percent of high earners' income to the poor? Under such a regime, high-earning individuals would surrender 31 percent of each additional dollar of income: 30 percent would go to the tax authority, and 1 percent would be taken by the legal system. Now assume, instead, that an efficient legal rule is retained and the income tax rate for high earners is raised to 31 percent. Then they would be in the same position and would be induced to work the same amount as under the inefficient regime. (The increase in the tax rate from 30 to 31 percent does not reduce their incentive to work because it is offset by the 1 percent decrease in the implicit tax that was associated with the inefficient legal rule.) The added tax revenue could be given to the poor, just as under the regime with the inefficient legal rule. Hence, redistribution using the 31 percent income tax and the efficient legal rule differs in only one respect from redistribution using the inefficient legal rule with the 30 percent income tax: because redistribution is accomplished in the presence of an efficient legal rule, resources would, by definition, be saved. With this savings, all individuals could be made better off (for example, by reducing taxes and increasing payments to the poor).

---

example, Guido Calabresi, The Pointlessness of Pareto: Carrying Coase Further, 100 Yale L. J. 1211, 1224 n.36 (1991) ("far from obvious that, as a general matter, tax and welfare programs *are* more efficient than a mixture of these and of other rules of law"); Duncan Kennedy, Distributive and Paternalist Motives in Contract and Tort Law, with Special Reference to Compulsory Terms and Unequal Bargaining Power, 41 Md. L. Rev. 563, 613 (1982) (inefficiencies from compulsory terms and from redistribution through taxation "involve exactly the same kinds of waste," leaving a difficult empirical question as to which is preferable); Anthony T. Kronman, Contract Law and Distributive Justice, 89 Yale L. J. 472, 508 (1980) (because taxation and contractual regulation both have efficiency costs, determining the preferable means of redistribution raises an empirical question that "must be resolved on a case-by-case basis, in the light of detailed information about the circumstances likely to influence the effectiveness of each method of redistribution"). In addition, Jennifer Arlen does not take into account the existence of the income tax system in arguing that legal rules should reflect parties' wealth. See Jennifer H. Arlen, Should Defendants' Wealth Matter? 21 J. Legal Stud. 413 (1992) (discussed in note 14 *infra*); see also *id*. at 428 (noting that basing liability on defendants' wealth would affect incentives to accumulate wealth, but claiming that "no matter what the outcome of [further analysis of the issue], it is clear that the conventional analysis . . . is not theoretically sound").

More generally, we show that, *even though the income tax distorts work incentives, any regime with an inefficient legal rule can be replaced by a regime with an efficient legal rule and a modified income tax system designed so that every person is made better off.* In Section I, we present the analysis leading to this conclusion. In Section II, we discuss briefly the general role of legal rules in redistribution and when, if ever, it is efficient for legal rules to take into account parties' wealth.

I. Analysis

We provide here an informal demonstration of our result: given any regime with an inefficient legal rule (notably, one intended to help achieve a redistributive goal), there exists an alternative regime with an efficient legal rule and a modified income tax system in which all individuals are better off. For concreteness, we will use a specific example in our analysis, but it will be clear that our argument does not depend on the particulars of the example. (For a formal proof, and discussion of certain qualifications, see the Appendix.)

Suppose that individuals engage in an activity that may cause accidents, the likelihood of which may be reduced by potential injurers' exercise of care. It is a familiar result that the strict liability rule—under which individuals pay for the harm they cause—leads to efficient behavior. Suppose that each individual's expected net accident costs under this rule, denoted $\hat{a}$, are $1,000. These equal the cost of care, harm suffered, and damages paid, less damages received.

Compare this efficient legal rule to an inefficient one that redistributes income from higher- to lower-income individuals. (Redistribution might be accomplished, for example, by setting damages higher when the injurer is wealthy and lower when the injurer is poor. Such a redistributive legal rule would be inefficient: it would induce the wealthy to take more care and the poor to take less care than is efficient.) Let us denote the net expected accident costs—the cost of care, harm suffered, and damages paid, less damages received—individuals bear under this rule by $a(y)$; that is, an individual's accident costs are a function of his income, y. (Expected accident costs must be a function of income if the rule is to redistribute income relative to a rule under which everyone's accident costs are the same.)

In particular, suppose that relative to the efficient rule the poorest (those with income of $0) benefit by $500 and the richest (those with income of $100,000) lose $1,000, with a linear relationship in between. Figure 1 depicts accident costs under this inefficient rule and also under the efficient strict liability rule. Relative to the efficient rule, the ineffi-

a: accident costs under inefficient rule

â: accident costs under efficient rule
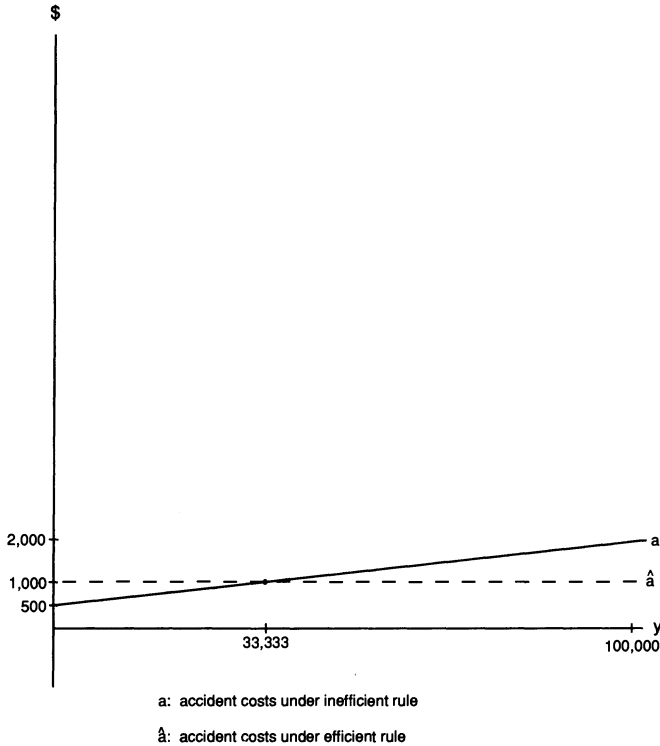
FIGURE 1

cient legal rule redistributes from those with incomes over $33,333 to those with lower incomes.

To complete the description of the regime with the inefficient rule, assume that there is an income tax with a rate of 20 percent. In particular, individuals pay tax on 20 percent of their income to the extent it exceeds $10,000; individuals with income under $10,000 receive transfer payments equaling 20 percent of the difference (so those earning no income receive $2,000).[4] This tax system, denoted t, is illustrated by the solid line in Figure 2.

In Figure 2, we also show a dashed line for $t + a$, which represents individuals' total payments under the tax system and on account of accidents in the regime with the inefficient legal rule. It is this combination that determines an individual's welfare level and work incentives. With

---

[4] This may be familiar to some readers as a negative income tax. It also is analogous to a conventional income tax combined with a welfare system.
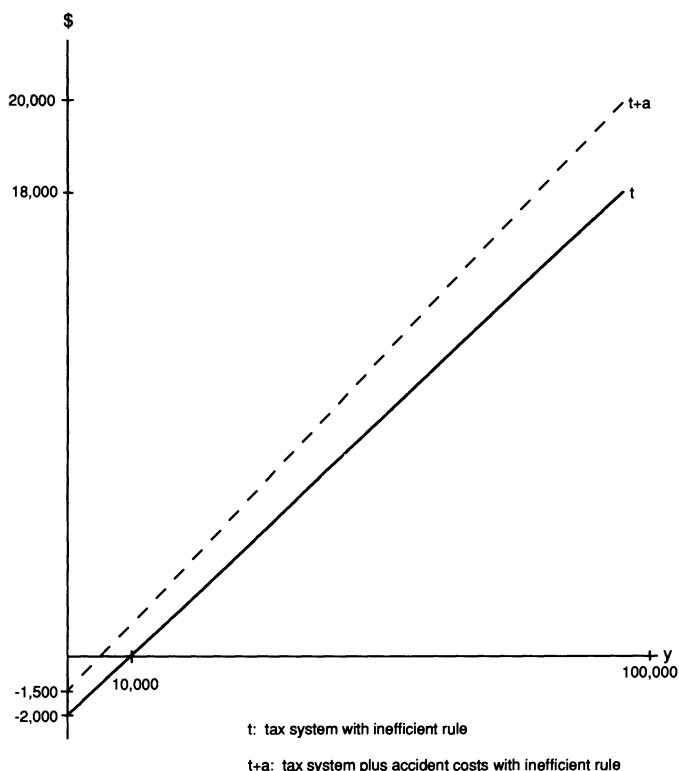
FIGURE 2

regard to the latter, we emphasize that when an individual with income y contemplates earning additional income by working harder, his total marginal expected payments equal the sum of his marginal tax payment and the expected marginal cost on account of accidents.[5]

Having described the regime under the inefficient legal rule, we will demonstrate that all individuals can be made better off in a regime with the efficient legal rule and an altered income tax system. Consider the

---

[5] Of course, the extent to which individuals accurately perceive both their marginal tax rate and the amount implicitly taxed by the legal system is an empirical question. We think it plausible that if the legal system redistributed a significant amount of income, individuals would take this into account. (After all, individuals often would not need to understand the effects of legal rules; rather, they might simply observe, for example, the resulting high prices of products bought disproportionately by the rich.) If they misestimated the extent of redistribution, there is no compelling reason to assume that their guesses would be too low rather than too high.
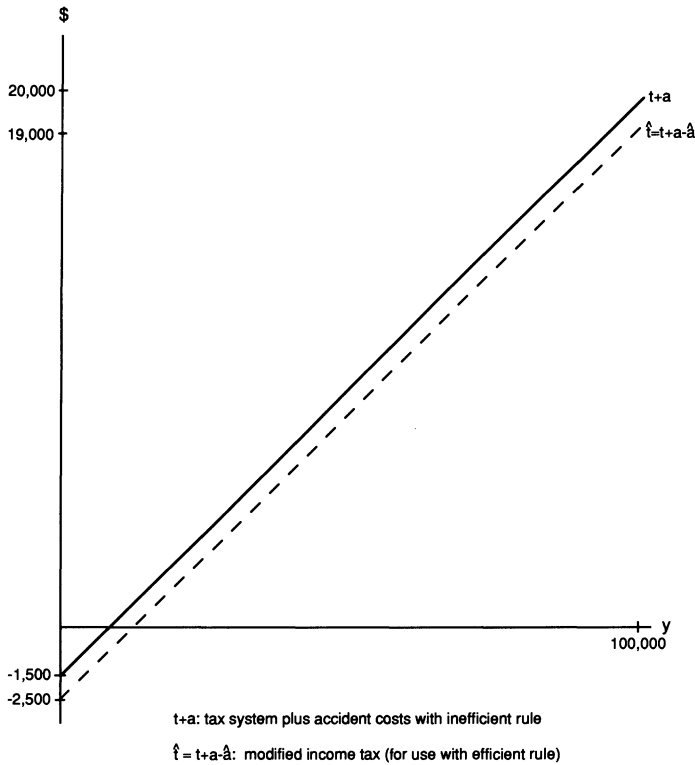
FIGURE 3

modified income tax depicted in Figure 3. The solid line, $t + a$, which represents individuals' total payments under the regime with the inefficient legal rule, is copied from Figure 2. The dashed line, which represents the new income tax, $\hat{t}$, is obtained by subtracting $\hat{a}$ (which, recall, equals \$1,000 for all income levels) from the line $t + a$. The two tax regimes are compared in Figure 4.[6]

We can now describe individuals' behavior and welfare under the efficient legal rule combined with the new income tax. The total effect of the tax and accident costs is given by the sum $\hat{t} + \hat{a}$. But, by construction, this expression is identical to $t + a$ for any income level. (After all, $\hat{t}$ is constructed by subtracting $\hat{a}$ from $t + a$. When $\hat{a}$ is added back, the result must equal $t + a$.) Thus, individuals who earn income y have

---

[6] The schedule $\hat{t}(y)$ is steeper than $t(y)$—that is, more redistributive—by precisely the amount by which $a(y)$ is steeper than $\hat{a}$, as depicted in Figure 1.

$$\text{FIGURE 4}$$

t: tax system with inefficient rule

$\hat{t}$: tax system with efficient rule
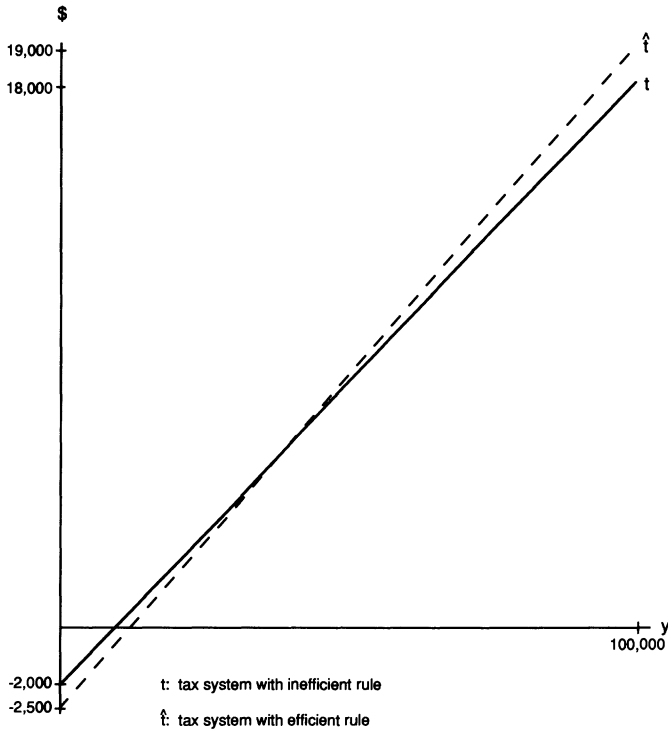
the same level of welfare under each regime. Moreover, each individual (whatever his ability) will choose to earn the same income under each regime because his incentives will be unchanged: a marginal dollar earned will result in the same incremental costs (taxes plus accident costs) under both regimes.

Although work effort and an individual's after-tax welfare are identical under the two regimes, the state collects more tax revenue in the new regime because it involves a more efficient legal rule. To see why this must be true, we first compare total available resources in each regime. Because individuals' work effort is unaffected by the new regime, total earnings will be the same. But the inefficient rule by definition wastes resources relative to the efficient rule, so total resources must be greater under the new regime. Yet the new income tax leaves individuals with the same income as in the initial regime. Thus, it must be that the new tax collects all the resources saved by the efficient legal rule. Indeed, the new tax was constructed precisely to produce this result.

To illustrate, consider the case in which individuals' income is uniformly distributed over the range from $0 to $100,000. It is straightforward to calculate that the per capita cost of the inefficient legal rule is $250. The per capita revenue under the original income tax, t, is $8,000, and per capita revenue under the modified income tax, $\hat{t}$, is $8,250. Indeed, the modified tax collects greater revenue by an amount that just equals the resources wasted by the inefficient legal rule.

The conclusion is that adopting the efficient legal rule, with an appropriate change in the income tax, leaves all individuals equally well off but leaves the government with a surplus. With this additional revenue, the government can make each individual better off—for example, by lowering taxes (for the poor, increasing transfers) by a fixed amount for each individual or spending the funds on a public good that benefits everyone.[7]

II. Discussion

(a) *Factors bearing on redistribution through legal rules.* In this article, we have emphasized that redistribution through legal rules is less efficient than redistribution through the income tax. Other more familiar considerations of feasibility and accuracy also favor redistribution through the income tax system.[8] Specifically, the income tax system (including transfer programs) can redistribute from all the rich to all the poor,[9] whereas legal rules have substantially less redistributive potential. First, when parties are in a contractual relationship, it is well understood that redistribution usually is not accomplished because prices generally adjust to reflect the expected cost of legal rules.[10] Second, when redistri-

---

[7] In practice, redistribution through the income tax rather than through legal rules would not literally make everyone better off. Inevitably, some would gain more than others and a few might lose. Systematic distributive effects across income levels can be avoided by adjusting the income tax, which leaves the possibility of sporadic unequal treatment within income classes. There is, however, no reason that such inequality would be greater when using the income tax rather than legal rules to redistribute income. For reasons noted in Section II(a) one might expect legal rules to fare worse on this account.

[8] See, for example, A. Mitchell Polinsky, An Introduction to Law and Economics 124–27 (2d ed. 1989).

[9] Many exceptions, such as adjustments for numbers of dependents, presumably reflect aspects of distributional policy. Others, such as those that result from tax evasion and welfare fraud, may be addressed in many ways (increasing enforcement, augmenting income taxes with luxury taxes). It would be surprising, however, if courts could more accurately determine true income in, say, private tort disputes than in tax evasion or welfare fraud enforcement proceedings.

[10] Contract rules may affect distribution if prices are also regulated, but then the price regulation itself may be used to accomplish redistribution among such parties. Also, there may be some incidental distributive effects of contract rules, such as when some individuals must expend resources to opt out of default rules that are suitable for others.

bution is possible, it tends to be limited to those few who become parties to lawsuits. And even then, redistribution may be haphazard. (A pro-plaintiff rule may be redistributive if plaintiffs, on average, are poorer than defendants, but unless this is uniformly true, the redistribution will flow in the wrong direction in some cases.)[11] The latter problem can be avoided only if the legal rule depends directly on parties' incomes, a policy that few have proposed. Furthermore, if one is prepared to go that far, it becomes difficult to understand why one would administer redistribution in such an ad hoc and inefficient manner rather than through the income tax system.[12]

An argument sometimes offered in favor of redistribution through legal rules is that the tax system falls short of optimal redistributive taxation— perhaps because of the balance of political power in the legislature. This argument raises questions that we do not seek to address about the function of courts in a democracy. In any case, it seems unlikely that courts can accomplish significant redistribution through the legal system without attracting the attention of legislators. Also, much legal reform presently under consideration, such as tort reform, is in the jurisdiction of legislatures.

These points, combined with this article's efficiency argument, suggest that normative economic analysis of legal rules should be primarily concerned with efficiency rather than the distribution of income. Nonetheless, analyzing distribution may be important, because those formulating income tax policy need to be aware of any significant distributive effects of legal rules that would not otherwise be apparent, such as from studying information on the actual distribution of income. Distributive effects, of course, are identified by economic analysis that examines the costs and benefits of legal rules—the same sort of analysis used to determine which rules are efficient.

(b) *Is it ever efficient for legal rules to take account of parties' wealth?* We have argued that it is inefficient for legal rules to take into account parties' wealth in order to redistribute income. We now consider whether there may be other reasons for legal rules to depend on parties' wealth.

Because the poor are more risk-averse than the rich, the efficient allo-

---

[11] Even when a party appears to be rich, the redistributive effect may be more limited. For example, when corporations pay more for injuries to third parties, consumer prices and wages will be affected.

[12] Thus, although we did not consider the possible additional administrative costs of increasing the amount of redistribution through the income tax, it seems plausible that these costs would be less than those of achieving significant, well-targeted redistribution through legal rules.

cation of risk might appear to justify taking wealth into account in the design of legal rules. For example, poor injurers might be assessed lower damages, the law's generosity providing them implicit partial liability insurance. Yet, if liability insurance is available in the marketplace, it is inefficient to adjust damages to reflect risk aversion.[13] Insurance purchases will provide the optimal degree of risk mitigation; furthermore, imposition of damages fully equal to harm is necessary to induce potential injurers and their insurers to take complete account of harm that might be caused. Thus, any adjustment in legal rules due to parties' risk aversion, as evidenced by their wealth, must be premised on a failure in insurance markets.[14]

Nevertheless, it often is efficient for damages to reflect the victim's income. When an injury involves lost future earnings, the level of earnings indicates the extent of economic loss.[15] In addition, under a negligence rule, sometimes it is efficient for the standard of care to depend on parties' income. To illustrate, suppose that a precaution that reduces expected accident costs by $15 takes an hour of effort. This precaution would be efficient for individuals who can otherwise earn only $10 an hour but not for those whose opportunity cost is $20 an hour.[16]

[13] This is demonstrated in Steven Shavell, On Liability and Insurance, 13 Bell J. Econ. 120 (1982).

[14] Jennifer Arlen, *supra* note 3, argues that, when parties are risk-averse, their wealth should affect the level of liability—even in the presence of perfect insurance markets and complete insurance. Her result derives from the assumption that the rich value wealth less at the margin than the poor (which is formally equivalent to the assumption that individuals are risk-averse). Therefore, social welfare is advanced by using the legal system to transfer wealth from the rich to the poor; in her model, this is accomplished by imposing higher liability on the rich. Yet she describes the social desirability of higher liability on the rich as an aspect of optimal deterrence, not as the masked transfer of wealth that it is. In fact, a complete analysis of her model would lead to the conclusion that the socially ideal outcome involves damages that fully equalize the wealth of the victim and the injurer. Indeed, if the victim were rich, he would pay "damages" to the injurer! Obviously, it would not be socially desirable to take parties' wealth into account in the manner Arlen suggests unless the income tax were unavailable for redistributive purposes. For further discussion of Arlen's article, see Thomas J. Miceli & Kathleen Segerson, Defining Efficient Care: The Role of Income Redistribution, 24 J. Legal Stud. (1995, in press).

[15] The argument assumes that injurers have some advance knowledge of the economic loss they might cause. If they knew only average losses for all victims, a rule providing that damages equal average harm would be equally efficient. See Louis Kaplow & Steven Shavell, Accuracy in the Assessment of Damages (Working Paper No. 4287, National Bureau of Economic Research 1993).

[16] An implicit assumption in this argument is that it is not possible simply to hire someone else to undertake the precaution. Also, note that under a rule of strict liability, damages should equal $15 rather than assessing higher damages on the rich in order to induce them to take the same care that others take.

III. Conclusion

Redistribution is accomplished more efficiently through the income tax system than through the use of legal rules, even when redistributive taxes distort behavior. Redistribution through legal rules causes the same inefficiency as taxes with regard to the labor-leisure choice: the distortion is caused by the redistribution itself and is not particular to the mechanism by which it is accomplished. And when redistribution involves choosing less efficient legal rules, additional costs are incurred. This argument, along with others that are more familiar, suggests that it is appropriate for economic analysis of legal rules to focus on efficiency and to ignore the distribution of income in offering normative judgments.[17]

APPENDIX

Formal Proof and Remarks

The model parallels the illustration in Section I. Individuals exercise care x and cause accidents with probability $p(x)$, with $p' < 0$, $p'' > 0$. An accident causes harm of h, which is borne equally by all individuals.[18] Individuals differ in their ability α to earn income y through labor effort ℓ, where $y(\alpha) = \alpha \ell$ and (for notational simplicity) α is distributed uniformly on the interval $[0,1]$. Individuals who cause accidents pay damages of d. The income tax schedule is $t(y)$.

We begin with an inefficient legal rule in which damages are $d(y_I, y_V)$, where y_I is the injurer's income and y_V is the victim's income. (Allowing damages to depend on parties' incomes makes redistribution possible.) Each individual chooses labor effort, ℓ, and care, x, to maximize expected utility, which is

$$EU = y - \ell - t(y) - x - \bar{p}h - p(x) \int_0^1 d(y, y_V(\alpha))\,d\alpha \qquad \text{(A1)}$$
$$+ \int_0^1 p(x(y_I(\alpha)))\,d(y_I(\alpha), y)\,d\alpha,$$

where $\bar{p}$ is the average probability that others will cause a person harm and where, recall, $y = \alpha \ell$. The first four terms on the right side are income, work effort, income tax payments, and care. Next, utility is reduced by the expected harm a person suffers, $\bar{p}h$. The final two terms represent payments made and received under the legal rule. Payments are made when a person causes an accident, which has probability $p(x)$; damages, in turn, depend on a person's own income, y (when one is the injurer), and each possible victim's income ($y_V(\alpha)$ is the income earned by the type of individual who has ability α)—the integral measures the total over

---

[17] Conventional efficiency analysis of legal rules that abstracts from the distribution of income typically will yield the same result as an analysis that fully incorporates both the distributive effects of legal rules and adjustments to the income tax system. The conventional approach, however, is preferable on grounds of simplicity.

[18] Alternatively, it could be assumed that each individual bears harm with equal probability, so that the expected harm is the same for each individual.

all possible victims. Payments are received when one is injured; each type of individual causes an accident with probability $p(x(y_I(\alpha)))$ and pays damages reflecting his income—the integral measures the sum over all types who might injure a person.[19]

We now compare this regime to one with an efficient legal rule and a modified income tax system. The efficient rule is $d = h;$ as is well known, under strict liability when injurers pay damages equal to harm caused, all costs are internalized, so actors are induced to take the level of care that minimizes the sum of the cost of care and expected harm. We denote this efficient level of care as $\hat{x}$ and observe that it is independent of one's income level. It will be useful to denote the inefficiency caused by the damages rule $d(y_I, y_V)$ by

$$\pi = \int_0^1 \left[[x(y(\alpha)) + p(x(y(\alpha)))h] - [\hat{x} + p(\hat{x})h] \right] d\alpha. \tag{A2}$$

Because the damage rule d is inefficient, π is positive. (The integrand is positive whenever $x(y(\alpha))$ is unequal to efficient care $\hat{x}$.)[20]

In the regime with the efficient damages rule $d = h$, let the modified income tax be

$$\hat{t}(y) = t(y) + \left[x(y) + \bar{p}h + p(x(y)) \int_0^1 d(y, y_V(\alpha)) d\alpha \right.$$
$$\left. - \int_0^1 p(x(y_I(\alpha))) d(y_I(\alpha), y) d\alpha \right] - \left[\hat{x} + p(\hat{x})h \right]. \tag{A3}$$

Note that, as in Section I, the new income tax, $\hat{t}(y)$, is constructed by beginning with the initial income tax, $t(y)$, adding total accident costs under the initial, inefficient regime and subtracting total accident costs under the efficient regime. The former total (under the inefficient rule) is the first term in large brackets: the cost of care, harm suffered, and expected damage payments, minus expected damage awards received. The latter (under the efficient rule) is the second term in large brackets: the cost of care and expected damage payments (harm suffered is precisely offset by expected damage awards received). As a result of the first adjustment, the new income tax changes with income in exactly the way that accident-related costs did under the inefficient liability rule. Thus, if higher-income individuals paid more in damages, now they pay more in taxes instead.

We next demonstrate that the expected utility of individuals will be the same under the new tax $\hat{t}(y)$ and the efficient legal rule as it is under the initial income tax and the inefficient rule. Recall that, under the efficient legal rule, all individuals (regardless of income) choose the same level of care, $\hat{x}$. Also, as just noted, expected harm suffered is just offset by expected damage awards received because damages equal harm. Hence, in the new regime, individuals choose labor effort ℓ to maximize expected utility, which is

---

[19] The last four terms together correspond to the expression $a(y)$ in the notation of Section I.

[20] In particular, whenever the damage rule d results in an expected payment exceeding h (as it would when injurers are relatively wealthy, if the rule is redistributive in a manner that favors the poor), injurers will take excessive care. Similarly, when the damage rule d results in an expected payment less than h (as when injurers are relatively poor), injurers will take too little care.

$$E\hat{U} = y - \ell - \hat{t}(y) - \hat{x} - p(\hat{x})h. \tag{A4}$$

If one uses (A3) to substitute for $\hat{t}(y)$ in (A4) and compares the result to (A1), the expression for expected utility in the initial regime, it is apparent that, for any income level y,

$$E\hat{U} = EU. \tag{A5}$$

Because expected utility is the same for any level of labor effort, ℓ, individuals of any given ability will choose the same labor effort under both regimes. This, in turn, implies that their welfare will be identical under both regimes.

Finally, we show that tax revenues are greater under the modified income tax. In particular,

$$\int_0^1 \hat{t}(y(\alpha))\,d\alpha = \int_0^1 t(y(\alpha))\,d\alpha + \pi. \tag{A6}$$

This follows directly from the definitions of $\hat{t}(y)$ in (A3) and π in (A2). After all, $\hat{t}(y)$ is constructed to equal $t(y)$, plus the total accident costs under the inefficient rule minus the total accident costs under the efficient rule. And π is defined to equal just this difference in accident costs. (The only difference between the bracketed expressions in [A3] and the right side of [A2] is that the former includes terms for damages individuals pay and receive. But when one integrates over all individuals, the total of damages paid and received are equal, so these components are precisely offsetting.)

One can define a new tax by $\hat{t}(y)-\pi$. (That is, the savings in accident costs are uniformly rebated, in a lump-sum manner, to the entire population.) Under this tax, labor effort will be unchanged (since the tax differs from $\hat{t}(y)$ by a constant),[21] so revenues will now be the same as under the initial tax, $t(y)$. Each individual is better off by π.

Remarks. (a) Generality of the result. It should be apparent that our result does not depend on the nature of the activity (for example, one could incorporate victim care), the form of the legal rule, the income tax system,[22] or the distribution of ability. The result might appear to depend on some features of the utility function—notably, risk neutrality, the lack of income effects, and care being independent of ability. Relaxing these assumptions would make determination of the efficient legal rule more complicated. It would remain true, however, that if the redistribution accomplished through an inefficient legal rule were instead achieved through a modification of the tax system, resources would be saved and all individuals could be made better off.

(b) Excise taxes versus legal rules as redistributive devices. Reasoning similar to that in our article suggests the superiority of excise taxes over legal rules as

[21] The utility function (A1) involves no income effects; if there were income effects, the argument would hold except that the amount of rebate that would restore budget balance would be less than π.

[22] For convenience, we examine the distribution of income with an income tax as the redistributive tool. In a dynamic analysis, one might wish to distinguish the distribution of consumption or wealth from the distribution of income (and consider consumption or wealth taxes in addition to an income tax), which would raise the issue of distorting savings. One can think of the labor-leisure distortion as exemplifying any distortion that results from a general redistributive tax.

redistributive tools. Suppose, for example, that there is an inefficient legal rule that requires excessive care by owners of yachts. Moreover, assume that this rule has desirable distributive features because yacht owners are usually wealthier than those injured by yachts. The inefficiency caused by this rule will have three components: excessive care is by definition more costly than the harm prevented; yachting is made more expensive, which distorts choices between yachting and other activities (for example, playing golf); and income buys less for the rich, which distorts their labor-leisure choices.

Consider the alternative of using an efficient legal rule combined with an appropriate excise tax on yachting, the proceeds to be distributed to low-income individuals (perhaps the victims of yachting accidents). Distortions of the amount of yachting and labor-leisure decisions would remain the same: the rich would pay more on account of the excise tax rather than on account of bearing higher accident costs (the sum of prevention costs and expected liability payments).[23] But the first inefficiency, excessive care, would be avoided. Thus, the excise tax would allow more efficient redistribution than the legal rule.

Observe, however, that an excise tax is a less efficient means of redistribution than the income tax, because the excise tax distorts the amount of yachting whereas the income tax does not.[24] Thus, if one wishes to redistribute income, the most efficient choice typically will be the income tax, the second choice would be an excise tax (as with luxury taxes), and the worst alternative would be an inefficient legal rule with desirable distributive consequences.

(c) Qualifications and the relationship between our result and those in the literature on optimal taxation.   Our result is analogous to results on optimal taxation. In simple cases, specific commodity excises are inefficient in the presence of an optimal income tax.[25] This conclusion does not hold generally, however, because taxes or subsidies on particular commodities might have

---

[23] Analogous to the effects of excise taxes are subsidies for particular purchases. The familiar argument is that in-kind welfare assistance (for example, free housing rather than cash of equal market value) is inefficient because it distorts choices such as that between housing and food purchases, in addition to creating potential work disincentives for the poor that would result from cash assistance as well. Although one might justify in-kind welfare programs on other grounds—for example, because we paternalistically wish to force the poor to spend on food and housing—it is difficult to apply such arguments in the context of redistribution through legal rules. (We would not channel redistribution through a tort rule because we wished the poor to be in more accidents caused by the rich.)

[24] Under the Ramsey tax rule, the efficiency of such an excise tax would depend on the elasticity of demand for yachting. But, as explained in the following remark and note 25, this analysis is inapplicable in the presence of an income tax. An excise tax, however, may be superior if the amount of yachting were excessive, as it might be under a negligence rule. See Steven Shavell, Strict Liability versus Negligence, 9 J. Legal Stud. 1 (1980).

[25] For a useful survey of the literature and discussion of the ideas presented in this remark, see Joseph E. Stiglitz, Pareto Efficient and Optimal Taxation and the New New Welfare Economics, in 2 Handbook of Public Economics 991, 1023-27 (Alan J. Auerbach & Martin Feldstein eds. 1987). The survey explains why the familiar Ramsey tax rule—that tax rates on commodities should vary inversely with demand elasticities—is inapplicable in the presence of an income tax. (When an income tax is present, one can raise revenue without causing any distortion in choices among commodities. Hence, differential taxation of commodities is only useful when it reduces the labor-leisure distortion, as explained in the text.)

indirect effects that reduce the distortion of an income tax. In particular, by taxing complements of leisure and by subsidizing substitutes, one can reduce the labor-leisure distortion and thereby improve welfare by more than the inefficiency that results from distorted purchases of the taxed or subsidized commodities.

Analogously, if there were legal disputes involving activities that were strong complements of or substitutes for leisure, one might select rules that provided additional penalties or subsidies relative to what an efficient rule would involve. (As the excise tax discussion suggests, however, this would be the most efficient choice only if taxes or subsidies on the activities themselves were infeasible.) Such penalties and subsidies, however, are not conventionally redistributive: whether an activity should be penalized or subsidized depends on how the activity affects the labor-leisure choice, not on whether it is undertaken disproportionately by the rich. Thus, although a complete and sophisticated analysis does not demonstrate that it could never be efficient to change legal rules from what narrowly seem to be the most efficient ones, there is no general argument for adjustments of a conventionally redistributive type.[26]

---

[26] For discussion of other qualifications, see Kaplow, *supra* note 3.