Institutional Requirements for Effective Imposition of Fines

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1. Introduction

More than at any other time over the past 30 years, state and local governments are interested in reducing the burden of the criminal justice system. While some reform proposals are aimed at reducing the intrusion of the system, current interest in reform is largely motivated by fiscal concerns (Scott-Hayward 2009). To the extent that fines can replace more socially costly sanctions such as incarceration without adverse consequences on crime rates (or other goals of the criminal justice system), increasing their use is a move toward “economical crime control.”

Limited data suggest that in the early years of the US, fines were more frequently used than today. Goebel and Naughton (1970) found that fines were common in the colonial era, based on data from New York courts. In the more recent period, there was a surge of interest in fines as an alternative sanction in the 1980’s, when prison populations were rapidly expanding. A series of articles from the Vera Institute of Justice and the Rand Corporation made the case for fines as a sanction, described and assessed court practices and evaluated demonstration projects.

Before that point, theoretical analyses of fines were concerned with how to impose fines that did not unfairly discriminate against the poor but could still be collected and not manipulated by defendants. The innovation in the field work by Vera and the follow up by Rand was to set fines as a function of income, rather than as a flat amount. This idea was adopted from the common practice in western Europe, and came with several advantages: it avoided the constitutional restrictions on wealth discrimination and, because fines could be adjusted for offender ability to pay, allowed them to be set at nontrivial levels. Once fines are nontrivial, they then become more attractive sanctions to judges, making them a viable alternative to incarceration (Hillsman & Greene 1988).

In the background research on existing practice and field demonstrations evaluated by Vera and Rand, very few of the problems brought up in more theoretical analyses seemed to apply. Fines

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1 Some of the earliest uses of fines, such as the “wergeld” in Anglo-Saxon law, seem to be essentially negotiated blood money truces between warring clans. Before the technology of incarceration was fully developed, it seems that the average state or ruler could choose from a criminal punishment menu limited to fines, corporal punishment, or capital punishment. It was fairly common for a punishment for a major crime to be “fine if you can pay it, death if you can’t,” or for a single polity to switch freely between the use of the punishment of a fine and the punishment of a death sentence for the same crime (Zamist & Sichel 1982). Rusche et al. (2003) suggest that a growing population of poor in Europe in the middle ages and early modern era led to the use of prison as a deterrent. In their view, industrialization and the increased prevalence of money and market relations up to 1850 then made the fine a more practical option in Europe, and it was brought back.


3 See the Equal Protection Clause arguments in Williams v. Illinois (1970) and Tate v. Short (1971), heavily cited Supreme Court cases that established rights of indigent defendants not to face long terms of incarceration for inability to pay criminal fines.
were used for a significant minority of offenses (perhaps a quarter of offenses), courts were usually able to get a good sense of the income of the perpetrator quickly and collection rates are decent, if imperfect.

Despite these fairly positive findings about the implementation of day fines, they have not gained much traction as an alternative sanction in the United States. Under Tony Blair, the United Kingdom greatly expanded the use of fines for minor offenses. But in the American criminal justice system, outside of automobile offenses and white-collar crime, fines are something of an afterthought. While they seem to be imposed quite frequently as part of a package of sanctions, both across the United States and within specific jurisdictions, fines do not seem to be prioritized, and little thought or planning seems to go into setting up systems to design fines, track them, and enforce collection.

In this essay, we undertake an analysis of the role of fines as a criminal sanction in the U.S. today and the potential for fines to play a larger role in crime control. The literature is generally divided into two conceptual strands: one that considers issues such as the setting of fines within a menu of criminal sanctions, how fines do or do not fulfill the purposes of punishment, and the deterrent and other impacts of fines on choices of potential offenders; and second a more descriptive strand that considers mechanisms for increasing collection rates and the perspectives of judges and others on the appropriate utilization of fines and other sanctions. We consider both the policies regarding fines as criminal sanctions and the organizational and ecological issues surrounding their collection in order to assess the practical relevance of an increasing reliance on fines.

A quick summary of our conclusions is that first, fines are economical only in relation to other forms of punishment, second, that for many crimes fines will work well for the majority of offenders but fail miserably for a significant minority, third, that they present a number of very significant administrative challenges, fourth, that the political economy of fine imposition and collection is complex. With the caveats that jurisdictions vary tremendously and that there are large gaps in our knowledge about them, we conclude that it is possible to expand the use of fines as a criminal sanction if institutional structures are developed with these concerns in mind.

2. Fines as Punishment

Courts have a set of sanctions that can be applied as punishment for criminal offenses, and the very language “alternative sanctions” reflects the central role of secure confinement as a sanction. This chapter generally considers probation, jail, prison, and post-incarceration supervision as the “main” sanctions in order to discuss other options as “alternatives.” But, frequently these sanctions are not distinct. Probation is backed with the threat of incarceration, as

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4 The motivation for the expanded use of fines was to reduce pressure on the courts so that major cases would receive more attention and could be resolved more quickly. Some have criticized the lack of due process. Others have argued that fines were more of a “tax” on behavior than a punishment, suggesting that fines did not communicate sufficiently a sense that the behavior was socially unacceptable.
are parole and mandatory post-incarceration supervision. Therefore, a given offender may transition through several of these sanction types under a single sentence. (As we begin, it is important to bear in mind that the variation across criminal justice jurisdictions is tremendous – size, rules, allocation of responsibilities, funding, etc. As a result, generalizations are necessary. In our discussion, we treat various sanctioning schemes in their narrowest form in order to highlight distinctions across the canonical forms of the sanctioning options. But we recognize that jurisdictions combine and adjust sanctions so that the distinctions we draw in prose are not nearly so clean in practice.)

“Alternative” sanctions can be thought of as other forms of punishment, including monetary ones (such as fines, victim compensation, and court and other fees). In practice, monetary penalties are frequently assigned along with probation or incarceration, so in some cases they may not serve as alternatives but as complements. Another way that alternative sanctions are discussed is as “intermediate sanctions,” designed to fall somewhere between probation and incarceration. Recently, sanctions that fall between parole supervision and incarceration (e.g., “halfway back” programs) have been gaining attention. And specialized courts (such as drug courts, mental health courts, and the like) have introduced an alternative way of supervising and punishing, one that is not necessarily intermediate to probation and prison. We return to these more comprehensive sanctioning “programs” later in the chapter. To begin with, we concentrate on fines as a distinct sanction.

A. Estimates of the Imposition and Collection of Fines

Many minor infractions are routinely punished with monetary sanctions. A small fine resolves many driving violations, including ones that put people and property at risk. Monetary sanctions are generally considered effective and appropriate for minor infractions.

But for more serious offenses, fines are not an important category of sanction. In 2004, there were 2.2 million arrests for serious violent or property crimes. Of these, 68% were convicted and 9% diverted to another disposition. Of those convicted of a felony, 32% were sentenced to prison, 40% to jail, 25% to probation, and 3% to other sanctions (Useem & Piehl 2008, p.10). From this accounting, clearly sanctions explicitly labeled as diversion or alternatives, including fines, represent a minority of outcomes. But, as noted above, probation can be seen as an “alternative” to prison, and the sanction frequently includes fines for court costs and/or victim compensation.

Table 1 reports data from federal courts in 2006, showing that 76% of convictions have no fine or restitution imposed. Despite this, the total obligation is substantial: nearly $5 billion. Few offenders had both restitution and fine orders, and, in the federal courts at least, financial obligations vary greatly by offense type. The table reports some of the most common offenses. Immigration offenses are unlikely to have financial penalties, while fraud frequently requires restitution. In contrast, drug possession cases frequently result in a fine. Seventy percent of the total payment ordered comes from fraud cases, which represent fewer than 10% of the offenses.

For state and local jurisdictions, lack of data on fines and other alternative sanctions seems to be a nearly universal problem -- a consequence of the lack of priority placed on these sanctions.
Vera researchers made heroic efforts to assemble information, and the reports by Vera represent the absolute high water mark of concrete data about fines and their implementation in the United States, a level that has never been approximated before or since. So, in spite of the age of the information, we report a few of their findings.

Table 2 reports results of a telephone survey of court administrators during the 1980s, showing that the use of fines declines as the seriousness of the offense increases. Our own informal survey of court administrators found a great deal of variation in the role of fines and also in the ability of courts to report on the extent of their use. In fact, most of the information they could provide had to do with the collection more than with the imposition of fines. For example, one county jurisdiction we contacted could easily provide information on active fines outstanding, but could not provide any numbers to put this in context.

The focus of court administrators is generally on the collection of fines. And the general impression in the field is that collection rates are low. Langan (1994) reports that half of probationers had not complied with their conditions of probation, including financial penalties, by the time they were discharged from probation and that noncompliance was infrequently punished. Table 3 reports on collection of fines in misdemeanor courts across New York City in 1979. While the sample sizes are small (researchers took a one-week sample from each court), the results show variation in success, both across offense and across court, and generally indicate that fines collections are not uniformly low (Hillsman et al. 1984). McLean and Thompson (2007) report more recent data showing great variation across states in imposition of monetary sanctions and low levels of collection. But this does not mean that collection rates must necessarily be low.

Data from Twin Falls (Idaho) in Table 4 show that collection rates for fines in misdemeanor cases and infractions are high, whereas collection rates are low for felonies and victim restitution. Note that in 2004, the jurisdiction began using a collection agency. Since that time, collections in the lagging categories have increased substantially.

One perspective on the potential for fine collection comes from the costs of collection itself. A review of the British experience is that it costs £91 to collect an £80 fine (United Kingdom 2006). An Orange County (California) official reported that its collection costs were an order of magnitude greater than revenues. From the perspective of an agency charged with collecting fines, such as a county court, this is a large negative return. But from the perspective of a jurisdiction imposing fines as an alternative to incarceration, including the avoided costs of

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5 A sense of the general lack of real numbers comes through in the story of a statistic on the extent of fine use, as reported by Hillsman et al. (1984). Apparently born in 1932, the modal figure in the literature for over forty years was that 75% of cases involved fines. “A figure of seventy-five percent was published in 1953 by the University of Pennsylvania Law Review and was passed along by Rubin in 1963 and again in 1973, Davidson in 1966, and the Rutgers Law Review in 1975. Miller used a very similar figure in 1956 without noting a source. It is fascinating that the University of Pennsylvania cites a 1932 article for this figure, and researchers desperate for some measurement have kept this seventy-five percent alive for over forty years, apparently without confirmation that it reflects current fines use.” (Zamist & Sichel 1982).
incarceration would yield a very high financial return. To paraphrase Winston Churchill, fines are the least economical form of punishment, except for all others that have been tried.

This point is best illustrated by results from a felony-collections program implemented by Snohomish County in Washington State. In 2003, the state Department of Corrections (DOC) entered into agreement with local county clerks’ offices to assume collection of financial penalties owed to the state by felony offenders. The county reports that the results of its program shown that “collection efforts in felony cases can be highly successful” (Snohomish County 2009). And from the county’s perspective, it was. From an expenditure of $85,000, the program produced $146,000 for the county. This latter figure was comprised of a $61,000 grant from the state and $85,000 in collection recovery fees ($100 per account). Note that the program would have simply broken even for the county without the state grant. In a sample of 100 cases in the clerk’s program, 16% paid in full (three times the rate in a similar group of cases managed by the DOC) and 38% of the balance was collected (compared to 6% in the DOC sample). The average payment collected was on the order of $100. The intervention was relatively simple. Monthly statements were issued, and administrative hearings held to monitor these accounts. Only after months of delinquency and repeated administrative intervention is the case referred for formal court hearings.

The collection of fines, even when the fine is an alternative to incarceration, is frequently backed up by the threat of incarceration if payment is not made. Nagin (2008) discusses that fine collection requires the “commitment of real resources” including systems to track payment and implement followup punishments, such as incarceration, in the case of failure to pay. He cites Moxon and Whitacker (1996) that roughly 25% of persons fined in England and Wales were imprisoned for some period as punishment for nonpayment.

In a finding known as “the miracle of the cells,” those with credible threats of sanctioning for nonpayment of monetary penalties had significantly greater compliance. In an experimental design, Weisburd et al. (2008) found that 35-40% of those facing the threat of incarceration paid 100% of their obligation compared to just 13% of controls. (The addition of other conditions did not increase compliance over and above the threat of incarceration.) Together with the results of the Snohomish County pilot project, these results show that agencies that make collection a priority can achieve much improved, if still imperfect, compliance rates.

B. Fines and the Purposes of Punishment

The discussion above suggests that fines and other monetary penalties play multiple roles in the criminal justice system. The traditional theoretical purposes of punishment are incapacitation, deterrence, rehabilitation, and retribution. Relative to incarceration, fines (and other alternative sanctions) offer less in terms of incapacitation, but can potentially fulfill the other purposes. But in practice, a particular sanction for a particular offense must fulfill multiple purposes. At the same time, different agents of the system may conceive of the same sanction differently. As an example, the view by court administrators of fines as a potential revenue stream to be balanced against the costs of accessing is very different from the view of a fine as a punishment, perhaps to be compared in terms of efficiency to other sanction alternatives.
Economists tend to emphasize the deterrent effect of criminal sanctions. But other justice system participants have other views. The victims’ rights movement of the 1980s and 1990s led to the increasing imposition of financial penalties in order to provide some compensation to victims and to fund offices to support crime victims. In addition, many states routinely impose a wide range of fees on criminal defendants. Reynolds et al. (2009) report a hypothetical (presented as representative) case of a person convicted of possession of a controlled substance in Texas, facing a prison sentence of five years (expected time served behind bars is two years of these five), a fine of $1500, and court costs of $362, including clerk’s fee, records management fee, and court security fee, among others. Some government agencies rely heavily on revenue streams resulting from criminal sentences. McLean and Thompson (2007) report that “administrative assessments on citations fund nearly all of the Administrative Office of the Court’s budget in Nevada … and [i]n Texas, probation fees made up 46 percent of the Travis County Probation Department’s $18.3 million budget.”

Another view of the appropriateness of particular sanction options comes from a consideration of the expressive quality of punishment. Many authors express concern that fines do not carry sufficient expressive condemnation of conduct, and thus becomes more like a “price” of conduct, or a licensing fee, or a “cost of doing business.” To the extent that it is the moral expressiveness of punishment that leads to deterrence, increasing reliance on fines instead of sanctions that restrict liberty, may become a false economy. Yet, concerns that fines lack sufficient expression of public scorn often omit consideration of the ways that fines are imposed. As Feeley (1979) and others have described, navigating one’s way through the courts, even if one’s case ends in charges being dropped or the imposition of a fine, will be experienced by many as punishing.

One metric of appropriateness of fines as punishment for particular conduct is judges’ willingness to impose them. A 1987 survey of judges found that 53% to 64% expressed a willingness to punish the sale of 1 ounce of cocaine with a fine and 27% to 46% expressed a willingness to punish daytime residential burglaries with a fine. Nagin (2008) interprets these findings as indicating willingness to use fines for fairly serious offenses. He observes “My hunch is that the major barrier to a large increase in the use of fines for nonviolent crimes would not involve adverse public reaction about being soft on crime. Rather, it would involve justifiable concerns about the effectiveness of fine enforcement and the possibility that offenders would pay the fine by committing more crimes (Nagin 2008: 39).”

In contrast, those particularly concerned with rehabilitation, including agencies and organizations focused on the challenges facing prisoners after release, often view monetary sanctions as a barrier to rehabilitation and a driver of recidivism (Mclean & Thompson 2007). Offenders are likely to face a variety of financial obligations, including court costs, victim restitution awards, and other debts (notably child support payments). The high marginal tax rates for paying these debts can become a strong disincentive to working in the legal labor market. As noted by

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6 Zamist and Sichel’s (1982) review summarizes the literature on expressive role of sanctions. Gneezy and Rustichini (2000) argue that fines can increase problem behavior under certain circumstances. Their analysis of fines for late arrival at a day care center found that parents were more likely to be late after the fines were imposed. It is unclear whether these findings are relevant to the context of criminal fines, as the day care fines were very small.
McLean and Thompson (2007), “Federal law provides that a child support enforcement officer can garnish up to 65 percent of an individual’s wages for child support. At the same time, a probation officer in most states can require that an individual dedicate 35 percent of his or her income toward the combined payment of fines, fees, surcharges, and restitution.”

Reynolds et al. (2009) report data from an Office of Court Administration study in Texas that shows for the population that have both criminal justice debt and owe child support (which may be 20-25% of the offenders, or more), offense debt is dwarfed by child support obligations. Perhaps in recognition of the financial demands, the repayment time horizon for the offense debt is long – roughly five years assuming no gaps in payment. Reynolds et al. (2009) recommend, based on these data, providing judges better training on the financial circumstances of the offenders so that they will impose fines that are collectable. The view that sentences do not reflect the practical issues of the collection of monetary penalties was echoed by court administrators with whom we communicated.

McLean and Thompson (2007) make a somewhat different policy recommendation, based on essentially the same findings and with a similar set of concerns. Monetary fines, including court costs and victim restitution, can be effectively collected if caseworkers coordinate debt collection across sources, facilitate the logistics of collection across agencies, and keep the repayment rate practical. Under this approach, the enforcement of the fee requirements will be individualized (as a function of wealth, earnings capacity, and other debt obligations) even if the imposition of the fees is not.

Both sets of recommendations are consistent with the findings of the literature on alternative sanctions more generally, including high surveillance options such as day reporting or drug treatment, which finds that these sanctions can be imposed efficiently if net widening is avoided (so that the sanction is appropriately targeted) and if program elements are judiciously chosen and faithfully implemented (Piehl & LoBuglio 2005).

C. Jurisdictional Issues

One institutional detail of particular practical concern is that of jurisdiction. While criminal justice is frequently referred to as a “system,” it is anything but. There are multiple layers of legal jurisdiction (from local to state to federal), and sometimes overlapping jurisdictions of agencies (such as lower and upper courts, probation, city police, county jails, and state prisons, among many others).

As has been implicit in the discussion above, different sanctions are implemented by different authorities, meaning that individuals may transfer from one agency to another within the criminal justice system to fulfill the conditions of a single conviction. These transfers may be transfers of authority or legal responsibility, physical custody, or both.

For violations of state criminal law, a sentence to prison means that the state correctional agency has responsibility for the details of the incarceration experience, subject to the time established by the court and the many restrictions of federal and state laws and regulations. Other sanctions may be carried out by corrections agencies, probation, or the courts. In about two-thirds of states
probation is in the judicial branch and in the other one-third it is an executive agency (Piehl & LoBuglio 2005). Therefore, a system of fines collected by the courts with jail time as punishment for noncompliance may require repeated handovers across jurisdiction, as an individual passes from the courts to the county sheriff and back again.

Handovers across these agency boundaries can be clunky, and the time and administrative work involved can undermine efficiency and rehabilitation. In addition, we saw above that different agencies may have different goals for the same activities. If a county clerk (or a collection agency operating under contract) sees revenue as the highest priority, fine collection might be treated quite differently than by a probation officer working to attain compliance across a wide range of conditions. As a result, jurisdictional boundaries not only lead to administrative costs, but may by their very existence fundamentally alter the form the imposed punishment takes.

A number of alternative sanctions programs have faced this same issue. For example, programs that employ a strategy of quickly administered, minor sanctions for rule infractions have shown a lot of promise for modifying criminal behavior (for examples, see Kleiman 2009 and Piehl 2009). But, just as in the fines example, such strategies run counter to the traditional jurisdictional boundaries. In order to be successfully implemented, they require either the development of new agency relationships or new capacities within agencies. One approach has been for agencies to developed new capacities and manage the punishment for rule violations “in house.” For example, parole in New Jersey has developed a “halfway back” program to reduce its reliance on county and state prison cells for punishment of violations of parole conditions. To do this, the parole agency now has several facilities with secure cells, located in cities with large numbers of parolees. Parolees in violation are taken to the halfway back facility where they may serve a few days, be held for as long as 30 days to be assessed for appropriate disposition, or transferred to a county or state cell. The new program was promoted as a way to both save resources and improve outcomes.7

Another solution to jurisdictional conflicts in imposing and carrying out alternative punishments is a relatively new institutional form known as the specialized court. Drug courts, mental health courts, reentry courts, and the like have been promoted to provide more appropriate and flexible supervision and sanctioning. In these courts, a judge (along with a group of law enforcement and social service practitioners) aims to construct a punishment that both sanctions the criminal behavior and facilitates rehabilitation. Because of the individualized program, fines and other monetary obligations of the offender are prioritized and managed against issues such as work disincentives. In these courts, the details of the sanction are organized around the particular circumstances of the offender, and these details can be, and are, modified over time. By including participants from multiple criminal justice and social service agencies, any conflicts can be managed within the team, with the leadership of the judge.

The added capacity for parole allows more flexibility which can speed resolution, allow punishment with minimum disruption to an offender’s productive activities (for example, by allowing him to continue any paid employment), and to tailor requirements. It will save money by reducing transfers to physically remove locations and reducing disruption to those facilities. If outcomes improve too, then downstream savings will accrue to the system.
In all of these alternative sanctions models, the punishment is oriented around the offender rather than the offense. Choices about priorities for expectations of the offender and sanctions for noncompliance are made with the offender as the audience, with the behavior modification goal of improving his or her functioning in society in the future. Advocates of such an approach to punishment tend not to be terribly concerned about the impact of these choices on other audiences, such as deterrent impact.

We attempt to accommodate concerns with both the offender and with wider audiences in the model below. The model explores the possibility of sorting offenders in a way that efficiently deters and at the same time is realistic in its imposition of penalties. Certain offenders are likely to be deterrable by fines or other sanctions, while others may be incapable of being deterred (either because unstable income and minimum allowable consumption levels make it impossible to collect sanctions from them or because of low levels of social skills).

3. Modeling Offender Choice under Fines

A long theoretical literature in economics addresses the heavy reliance of the criminal justice system on very expensive forms of punishment – prison – when cheaper alternatives – such as fines and other sanctions – are available. Becker’s (1968) well known result that the most efficient way to achieve deterrence is with a maximal fine has been analyzed or extended in a large number of papers, many of which analyze the conditions under which a maximal penalty may not be optimal. (See Durlauf & Nagin, this volume, for more on modeling deterrence.)

But the tradeoff among types of punishment has received somewhat less attention. The essential dimension for present purposes is the tradeoff between fines and incarceration, maximal or not. Incarceration is socially costly, and growing literatures in sociology, criminology, economics and policy document the various types of social costs involved in the use of incarceration (fiscal costs of provision of secure confinement, labor market impacts, costs imposed on community due to disruption of removal and return of residents, impact on family members, etc.) If the same level of crime could be achieved at lower social cost using alternative punishments, the social cost savings could be substantial. As Polinsky and Shavell (2000, p. 51) state it, “different types of sanctions should be employed in the order of their costs (per unit of deterrence).” And these sanctions should be imposed so that marginal deterrence is maintained.

The current literature reports heterogeneity in how people respond to various sanctions and threat of sanctions (Hillsman et al. 1984, Kleiman 2009, Moxon & Whittaker 1996). For example, when given the option, many inmates often prefer incarceration to terms of supervision “on the street” (Piehl 2002). But there is very little empirical data on deterrent impacts of the sanctions much less heterogeneity in the effects. Therefore, the literature does not currently allow for calculations of the cost-effectiveness of a unit of deterrence.

One potential limitation on fines is the low level of income and assets of the majority of criminal offenders (James 2004, Tyler & Kling 2007). The deterrent value of fines may be high enough

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8 See references in recent reviews by Polinsky and Shavell (2000) and Garoupa (1997).
to justify an important role in punishment for richer defendants, but for poor offenders there may be a low deterrent effect. Garoupa (2001) presents a model in which it is optimal for law enforcement to increase both the probability of apprehension and the penalty against richer defendants, as the return to prosecution of poor defendants is so low (yet still somewhat costly).

A. Fine Structure and Deterrence

We begin with a benchmark model of the deterrent power of fines, where the potential offender has a full-time stable job. He (without loss of generality, we stick to the male pronoun) receives a fixed wage $w$ every period. If he commits a crime he receives a benefit $b$. The probability of being caught, convicted and sentenced is $p$.

If honest, his payoff is: $w$

If dishonest, his payoff is: $-pf + w + b$

In this benchmark model, fines can successfully deter crime when our taxpayer fines that honesty is a better policy than dishonesty, which under our assumptions reduces to:

$$f > \frac{b}{p}$$

The interpretation of this is fairly simple: in order to make it advantageous for the average law-abiding citizen to stay law-abiding, all that is required in the benchmark model is a simple fine structure, based on an estimate of the upper-bound of the benefit the citizen might gain from breaking a specific law, $b$ and the odds of successfully catching him and convicting him if he does, $p$. We simply set a fine equal to the first value divided by the second. If it is believed that the citizen would at most gain $10 from jay-walking, and the state would have a 50/50 chance of catching him, the appropriate fine would be set at or slightly above $20$.  

A few comments are in order.

Note that the model doesn’t perfectly capture the day fine. Here, fines, wages, and benefits are measured in comparable units. If fines are considered to be relative to wage levels, as a day fine would be, this would require that benefits also be parameterized relative to wages. (If utility scales perfectly with earnings, then the results are unchanged by this reparameterization.) The day fine literature does not formally address the individual choice of potential offenders, so therefore does not pay close attention to the deterrent issues focused upon here.

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9 Note that in Becker (1968) a single variable, $f$, stands in for a generic form of punishment. It might reasonably summarized as “total pain,” “total disutility” or “total loss of utility” from punishment. While the paper discusses the cost, to society, of inflicting this disutility on individuals, there is no discussion of the issues of uncertainty, income, wealth etc. There are numerous papers that incorporate one or more of these additional considerations. See Polinsky and Shavell (2000) for a review of this literature.
Note also that we are assuming the deterrent power of the fine comes purely from the loss of money it represents. In practice it is highly probable that other aspects of the fine will have significant disutility – for many, the processes of arrest and conviction are humiliating and unpleasant, regardless of the final punishment.

Finally, note that the system described above is very simple so long as we maintain our benchmark assumptions that (a) the individual has a stable income level that can be docked up to the full level of the fine, (b) once he is caught and sentenced the punishment is certain and (c) he is a rational decision-maker.

Once we move away from any of these assumptions, the deterrent power begins to fall apart very quickly. It would seem reasonable that this helps to explain the mixed experience of fines use: most people roughly conform to our benchmark model, and hence are either perfectly deterred, or make occasional offenses and take their punishment, but there is a significant minority who have few resources to seize, are able to escape, are too disorganized to comply, or simply ignore their sentences.

There are a number of ways to model an agent who is impervious to the deterrent effect of fines. One simple and realistic story is as follows: we assume that in any period where the potential criminal fails to earn a high enough wage, he can fall back on a number of stopgap measures that will give him some base consumption. The stopgaps could run the gamut – running up credit card debt, pawning goods, borrowing money from a friend or loan shark, taking increasing advantage of public assistance or a food kitchen, sleeping on a friend’s couch, moving to a shelter, smalltime criminal activity, etc. However, all these stopgaps share two features: the state has no reasonable interest in the sources of this consumption and no hope of collection. We could not impound the sofa the offender sleeps on at his buddy’s or the ramen he mooches from his girlfriend.

When we combine the assumption of an uncertain wage with the assumption of some minimal level of consumption that cannot be docked, it suddenly becomes much more difficult to design a fine with true deterrent power. This potential offender already faces a high level of uncertainty – he could earn nothing over the relevant period or he could strike it big. If he strikes it big AND he is caught and sentenced, then the fine will sting. But the fine will only be binding if both things happen, and the odds of that may be substantially lower than the odds of being caught. If he thinks it is unlikely that he'll earn more than the poverty line, then the fine will have no menace for him.

In mathematical terms, the agent would expect income $\tilde{w} \sim U(0, \bar{w})$. Consumption would be a function of the realized wage, $c(\tilde{w})$ and cannot drop below a threshold, $\zeta$. Define $c(\tilde{w})$ as:

\[
c(\tilde{w}) = \tilde{w} \quad \text{if} \quad \tilde{w} \geq \zeta,
\]
\[
c(\tilde{w}) = \zeta \quad \text{otherwise}
\]

The fine will likewise be a function of the realized wage, $f(\tilde{w})$. We leave the function undefined while we explore the parameters.
If honest, the individual’s payoff is:

\[
E(c_h(\bar{w})) = \Pr(\bar{w} < \xi)E(c(\bar{w}) | \bar{w} < \xi) + \Pr(\bar{w} \geq \xi)E(c(\bar{w}) | \bar{w} \geq \xi) = \frac{\xi}{\bar{w}} \times \xi \times E(c(\bar{w}) | \bar{w} \geq \xi)
\]

If dishonest, his payoff is:

\[
E(c_d(\bar{w})) = \Pr(\bar{w} < \xi)E(c(\bar{w}) | \bar{w} < \xi) + \Pr(\bar{w} \geq \xi)E(c(\bar{w}) | \bar{w} \geq \xi) = E(c_h(\bar{w}))
\]

If honesty is a better (or no worse) policy than dishonesty then:

\[
E(c_h(\bar{w})) \geq E(c_d(\bar{w}))
\]

This inequality reduces to:

\[
f(\bar{w} | \bar{w} \geq \xi) > \frac{b}{p\left(\frac{\bar{w}}{\bar{w} - \xi}\right)}
\]

The interpretation is straightforward, and matches the text above: a deterrent fine for a person with uncertain income begins with the same ratio of expected benefit of crime \(b\) divided by the probability of punishment \(p\) but now it is scaled by a factor \(\frac{\bar{w}}{\bar{w} - \xi}\), so that the expected wage \(\bar{w}\) drops closer to the lowest allowed consumption \(\xi\), this factor will increase without bound, meaning the fine will have to increase without bound, which is clearly impractical.

B. Fines as the First Line of Defense

This simple story seems to match well the situation of a number of offenders. There are alternative stories that can yield the same outcome – offenders with stable income, but able to hide assets, or offenders whose main source of income is criminal activity, who simply commit more crime when sentenced. One can tell an even simpler story to explain how fines might fail to deter a prospective offender – some people are simply irrational (or perhaps they are differently rational), and no equation on earth will keep them from shoplifting or vandalism. Both theory and practice provide plenty of reasons to believe that for some people, at some times, fines will have no deterrent effect.

In our analysis, this is a feature, not a bug.

Thomas Schelling (quoting Walter Lippman) spoke of the plate glass window as a model deterrent mechanism – once you go too far, it breaks and an uproar ensues (Schelling 1956). Our vision of a fine is close to that, but not quite as binary – something like a thicket. Once you cross...
the line it marks out, you get immediately stuck by the branches, which will deter most people. However, a minority are so willful or heedless that they will keep on going. To deal with them you need a second, much more powerful, system that they cannot ignore. That doesn't mean the thicket doesn't play an important role, or that it's not a good investment. By cheaply deterring the hoi polloi, it allows you to focus on the real troublemakers.

Similarly, fines seem to do an efficient job of deterring the majority of potential offenders, but a significant minority (25% of offenders seems to be the rough proportion) will crash right through any fine system, accumulating a huge number of fines, completely failing to pay, etc. This is in keeping with a common pattern in criminal justice, and in management and administration generally. DiIulio and Piehl (1991) provide evidence of the high variation in offender patterns, showing that focusing punishment on the minority with the highest rates of offense yields the biggest benefits. Models of offending trajectories likewise show variation in offending that falls into identifiable clusters (Nagin et al. 1995). More generally, a commonplace of management lore is the “80/20 Rule” or “Pareto Principle”, the general idea that 80 percent of activity can be traced to 20 percent of individuals (i.e., 80% of sales are due to 20% of customers, 80% of complaints due to a presumably different 20% of customers, etc.¹⁰). This general idea seems to be very clearly borne out in all the available data on fine use and administration. For a wide range of nuisance crimes, misdemeanors, and even some basic felonies, efficient crime control will require two systems that effectively sort offenders.

For the appropriate crimes, fines will represent the first line of defense. An offender who is caught and convicted can be fined using a day fine method, so his payment will be scaled according to his wage or expected wage. The research by Vera suggests that this method can be trusted to assess a fine that is both payable but onerous. An effective administrative system needs to be in place to follow up (see Turner and Petersilia 1996 for a summary of some of the issues involved). After a certain amount of followup, triage becomes possible – one group of offenders pay quickly and fully, a second pays slowly and only after harassment, and a third group will completely fail to pay. If the administrative system is well-run, the first two groups will have been punished at only minor net cost to the system.

The third group, those who have failed to pay, will have crashed through the fine system into the next level. Most likely a court will need to tailor a solution for them, depending on the pattern of crimes. The development of the solution could draw on the experiences of the “miracle of the cells” (Weisburd et al. 2008) or programs with a more graduated set of sanctions that can be more narrowly tailored, such as those frequently used in specialized courts (Kleiman 2009) or those used to encourage labor force attachment in corrections programs to prepare inmates for release (Piehl 2009).

C. Enforcing a Separating Equilibrium

For this proposed system to work efficiently for a particular class of crimes, it must do a good job of allocating fines to those for whom they will be effective and retaining the “thicket” only

¹⁰ It appears that Joseph Juran was responsible for the popularization of this idea (Wood & Wood 2005).
for the others. Equilibrium is attained when those who never offend are happy to stay that way; those who offend once, in a weak moment, are glad it wasn't more than that, and wish it had never happened; and those who are undeterred wish they had better control of themselves.

What precepts can we employ to maintain this balance?

First, the system should not overreact to temporary failings. It is very easy for a poor but hardworking offender to miss one payment of an overall payment regimen. Carelessly treating them as if they were undeterrable may create needless misery for them, and unnecessary waste for the system.

Second, whatever tailored program is developed for those who are not deterred by the sanctioning scheme must not be compelling to somebody behaving according to the benchmark model, a “taxpayer”. This seems easy to achieve. The tailored program should ensure that noncompliance with the sanction produces further obligations to government (such as garnished wages or additional appointments to keep) that the “taxpayer” will find much more noxious than a simple fine. (For example, someone with regular wages or a hope of regular wages will not want to lose them.) This condition provides a constraint on how generous the tailored program can be in terms of writing down the financial obligations for those who cannot pay (Levitt 1997).

Finally, the fine system will need to be sensitive both to offenders who fail to pay, and offenders who pay and then commit the same crime again. The second offense should cost more than the first, and the third should cost more than the second. It is important, but perhaps expensive, for the system to prevent the sanction from becoming a “cost of doing business” or an indulgence for wealthy offenders. (Note: Polinsky and Shavell (2000) assume that the fine (net of collection costs) represents the true social cost, and hence is indifferent to repeat offenses.)

Fines can be an efficient sanction, in equilibrium, where it is possible for the system to sort offenders into different eventual punishments. Note that the imposed sanction is the same for all offenders convicted of the same offense, but the behavioral response to the sanction will vary by offender. After a certain record of failure, courts will tailor a solution. (This is the way the system currently works when the sanction is not simply ignored.) In order to maintain this as an equilibrium, the system must be keep people from “gaming” it – strategically appearing undeterrable to the court in order to have the obligation reduced.

4. Policy Discussion

To what extent, and how, can the use of fines be economically expanded? The conceptual model above and the institutional structure of American criminal justice suggest several conclusions.

The single most important requirement to achieve expanded use is that voters, judges, and court administrators believe in fines. Specifically, they have to believe that fines are efficient, that fines have a punitive and deterrent impact, that fines are regularly collected, and that people who don't pay fines face very serious consequences. Only if voters, judges and court administrators
believe all these things will fines be used on a regular basis, and resources allocated to developing them further.

Of these beliefs, the most complicated is the belief in efficiency. "Efficiency" is one of the most problematic words in the fines literature. We believe it is important to reject the idea that fines are particularly efficient. Fans of fines have badly overpromised, suggesting that they are almost perfectly efficient (Becker 1968), while the data suggest that at best, the net loss in fine enforcement (ignoring the economic cost of the crime) is in the absolute best case on the order of at least 20%.

Combined with the overpromising is the fact that many people think that fines are only efficient if fine collection covers its own cost, narrowly defined. Those who think about efficiency without considering opportunity cost will only want to impose fines on wealthy white collar defendants and traffic violators. Court administrators will enthusiastically fight off any attempt to broaden the use of fines when expanding the usage is likely to radically reduce efficiency rates (defined from their perspective) and the overall statistics for their court.

For fines to succeed, we must in inject a massive dose of realism. Fines must explicitly be considered in comparison to other punishments, and used when they are more efficient as an alternative sanction. The history of diversion programs provides an important caution about the promise of this approach. Many alternative sanctions or diversion programs have been promoted as increasing efficiency. But these innovations have frequently been victims of their own success due to “net widening.” If more people are brought into the system through a reform, then the costs necessarily increase rather than decrease. If fines are seen as a credible punishment, the sanction may be imposed on those who would otherwise receive a warning as well as those who might otherwise receive a short jail term.

Fines will not work as standalone mechanisms. The substantial majority of those punished with fines will pay them, but a significant minority will “crash” through the system and enter the thicket. Fines cannot be successfully implemented without some acknowledgment of this, and a well-developed backup system. For the lowest level offenses, the backup can be largely administrative (at least until several repeat offenses ensue or compliance is unacceptably low). This involves adopting a traffic offense-like system for nuisance offenses. For more serious offending, the backup could involve incarceration (the “miracle of the cells”) or some set of tailored and/or graduated consequences sufficient to maintain the separating equilibrium.

The good news is that while there are no silver bullets, there are a number of things that can be done to improve performance. Our impression, based on our conversations with the National Council for State Courts and their membership, is that there are practitioners with a good understanding of these issues, and that systems in this area continue to improve. It would be good if scholars could support this work on a regular basis. One easy area for potential improvement is that many offenders are simply disorganized - regular follow-up can do a lot to support collection in this area, as the Snohomish County experience demonstrates. Without more systematic or comprehensive data collection efforts, no further generalizations are possible at this time.
The single most important gap in our knowledge about fines is an understanding of their real deterrent power. As mentioned above, we believe that fines are able to deter more efficiently than other punishments, but the empirical basis for this is thin. Any improvement in this area would be very helpful - from simple surveys investigating how offenders view fines versus prison to perhaps even experiments. Because of the expected heterogeneity, identifying the views at the policy-relevant margins for different offenses and different offender types is the particular research challenge.
References


Table 1. Monetary Penalties in Federal Cases, 2006: Overall and Selected Common Offense Types

<table>
<thead>
<tr>
<th>PRIMARY OFFENSE</th>
<th>TOTAL</th>
<th>NO FINE OR RESTITUTION</th>
<th>RESTITUTION ORDERED/NO FINE</th>
<th>FINE ORDERED/NO RESTITUTION</th>
<th>BOTH FINE &amp; RESTITUTION ORDERED</th>
<th>AMOUNT OF PAYMENT ORDERED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Total</td>
<td>72,112</td>
<td>54,974</td>
<td>76.2</td>
<td>8,717</td>
<td>12.1</td>
<td>7,569</td>
</tr>
<tr>
<td>Drugs - Trafficking</td>
<td>25,035</td>
<td>22,252</td>
<td>88.9</td>
<td>444</td>
<td>1.8</td>
<td>2,267</td>
</tr>
<tr>
<td>Drugs – Simple Possession</td>
<td>754</td>
<td>283</td>
<td>37.5</td>
<td>4</td>
<td>0.5</td>
<td>461</td>
</tr>
<tr>
<td>Firearms</td>
<td>8,354</td>
<td>6,903</td>
<td>82.6</td>
<td>497</td>
<td>5.9</td>
<td>914</td>
</tr>
<tr>
<td>Fraud</td>
<td>6,820</td>
<td>1,935</td>
<td>28.4</td>
<td>3,881</td>
<td>56.9</td>
<td>708</td>
</tr>
<tr>
<td>Immigration</td>
<td>17,527</td>
<td>17,058</td>
<td>97.3</td>
<td>46</td>
<td>0.3</td>
<td>418</td>
</tr>
</tbody>
</table>

Source: Table 15, U.S. Sentencing Commission, 2006 Datafile, USSCFY06
Table 2. Use of fines for cases other than parking or routine traffic (phone survey of select courts around the United States)

<table>
<thead>
<tr>
<th>Type of Court</th>
<th>All or virtually all cases</th>
<th>Most cases</th>
<th>About half</th>
<th>Seldom</th>
<th>Never</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Jurisdiction</td>
<td>Misdemeanor and Ordinance Violation</td>
<td>19</td>
<td>38</td>
<td>10</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>General Jurisdiction</td>
<td>Felony, Misdemeanor and Ordinance Violation</td>
<td>1</td>
<td>15</td>
<td>7</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Felony Only</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>58</strong></td>
<td><strong>21</strong></td>
<td><strong>25</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

Table 3. Fined Offenders who Paid in Full (New York counties, 1979)

<table>
<thead>
<tr>
<th>Conviction Charge Type</th>
<th>New York</th>
<th>Bronx</th>
<th>Kings</th>
<th>Queens</th>
<th>Citywide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Theft-related</td>
<td>17</td>
<td>41.5</td>
<td>4</td>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>Assault</td>
<td>6</td>
<td>85.7</td>
<td>2</td>
<td>66.7</td>
<td>1</td>
</tr>
<tr>
<td>Prostitution-related</td>
<td>13</td>
<td>35.1</td>
<td>4</td>
<td>30.8</td>
<td>4</td>
</tr>
<tr>
<td>Gambling</td>
<td>24</td>
<td>72.7</td>
<td>10</td>
<td>100</td>
<td>9</td>
</tr>
<tr>
<td>Disorderly Conduct, Loitering</td>
<td>24</td>
<td>82.8</td>
<td>26</td>
<td>57.8</td>
<td>33</td>
</tr>
<tr>
<td>Trespass</td>
<td>2</td>
<td>100</td>
<td>2</td>
<td>33.3</td>
<td>6</td>
</tr>
<tr>
<td>Drugs</td>
<td>12</td>
<td>52.2</td>
<td>6</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>9</td>
<td>75</td>
<td>13</td>
<td>92.2</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>77.8</td>
<td>6</td>
<td>46.2</td>
<td>5</td>
</tr>
<tr>
<td>Total Paid In Full</td>
<td>114</td>
<td>59.1</td>
<td>73</td>
<td>60.3</td>
<td>85</td>
</tr>
<tr>
<td>Total Fined Offenders</td>
<td>193</td>
<td>121</td>
<td>123</td>
<td>136</td>
<td>601</td>
</tr>
</tbody>
</table>

Source: Hillsman et al. (1984), Table D-4, p. 313.
Table 4. Collection Statistics from Twin Falls, Idaho

<table>
<thead>
<tr>
<th>Felony</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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</thead>
<tbody>
<tr>
<td>Amount Ordered</td>
<td>$258,679.49</td>
<td>$383,158.38</td>
<td>$321,571.29</td>
<td>$274,030.40</td>
<td>$334,900.00</td>
<td>$299,460.00</td>
<td>$286,933.40</td>
<td>$226,373.74</td>
</tr>
<tr>
<td>Amount Collected</td>
<td>$49,657.18</td>
<td>$70,609.09</td>
<td>$78,054.87</td>
<td>$93,560.71</td>
<td>$123,154.13</td>
<td>$141,486.90</td>
<td>$189,697.10</td>
<td>$177,765.93</td>
</tr>
<tr>
<td>Percent Collected</td>
<td>19.20%</td>
<td>18.43%</td>
<td>24.27%</td>
<td>34.14%</td>
<td>36.77%</td>
<td>47.25%</td>
<td>66.11%</td>
<td>78.53%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Infractions</th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
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<tbody>
<tr>
<td>Amount Ordered</td>
<td>$388,502.50</td>
<td>$427,734.86</td>
<td>$418,904.18</td>
<td>$408,609.50</td>
<td>$422,582.50</td>
<td>$459,327.00</td>
<td>$529,624.45</td>
<td>$643,346.60</td>
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<tr>
<td>Amount Collected</td>
<td>$375,361.75</td>
<td>$394,288.25</td>
<td>$400,134.38</td>
<td>$385,304.69</td>
<td>$388,362.25</td>
<td>$422,596.51</td>
<td>$507,571.47</td>
<td>$605,400.53</td>
</tr>
<tr>
<td>Percent Collected</td>
<td>96.62%</td>
<td>92.18%</td>
<td>95.52%</td>
<td>94.30%</td>
<td>91.90%</td>
<td>92.00%</td>
<td>95.30%</td>
<td>92.90%</td>
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<table>
<thead>
<tr>
<th>Misdemeanor</th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Amount Ordered</td>
<td>$473,059.60</td>
<td>$588,735.67</td>
<td>$495,424.03</td>
<td>$631,903.16</td>
<td>$576,182.17</td>
<td>$680,168.00</td>
<td>$872,281.03</td>
<td>$983,537.87</td>
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<tr>
<td>Amount Collected</td>
<td>$436,316.31</td>
<td>$497,125.43</td>
<td>$436,368.00</td>
<td>$495,195.09</td>
<td>$474,163.54</td>
<td>$499,160.39</td>
<td>$672,676.28</td>
<td>$766,633.88</td>
</tr>
<tr>
<td>Percent Collected</td>
<td>92.23%</td>
<td>84.44%</td>
<td>88.08%</td>
<td>78.37%</td>
<td>82.29%</td>
<td>73.39%</td>
<td>77.12%</td>
<td>77.95%</td>
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<table>
<thead>
<tr>
<th>Victim Restitution</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Amount Ordered</td>
<td>$1,464,658.40</td>
<td>$1,023,892.55</td>
<td>$1,436,567.27</td>
<td>$1,038,677.17</td>
<td>$1,139,807.79</td>
<td>$1,159,537.74</td>
<td>$882,003.72</td>
<td>$844,434.18</td>
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<tr>
<td>Amount Collected</td>
<td>$149,352.99</td>
<td>$183,635.43</td>
<td>$248,091.92</td>
<td>$195,457.43</td>
<td>$259,737.39</td>
<td>$330,374.37</td>
<td>$402,625.93</td>
<td>$386,878.76</td>
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<tr>
<td>Percent Collected</td>
<td>10.20%</td>
<td>17.94%</td>
<td>17.27%</td>
<td>18.82%</td>
<td>22.79%</td>
<td>28.49%</td>
<td>45.65%</td>
<td>45.82%</td>
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<table>
<thead>
<tr>
<th>Grand total</th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Amount Ordered</td>
<td>$2,584,899.99</td>
<td>$2,423,521.46</td>
<td>$2,672,466.77</td>
<td>$2,353,220.23</td>
<td>$2,473,472.46</td>
<td>$2,598,492.74</td>
<td>$2,570,842.60</td>
<td>$2,697,692.39</td>
</tr>
<tr>
<td>Amount Collected</td>
<td>$1,010,688.23</td>
<td>$1,145,658.20</td>
<td>$1,162,649.17</td>
<td>$1,169,517.92</td>
<td>$1,245,417.31</td>
<td>$1,393,618.17</td>
<td>$1,772,570.78</td>
<td>$1,936,679.10</td>
</tr>
<tr>
<td>Percent Collected</td>
<td>39.10%</td>
<td>47.27%</td>
<td>43.50%</td>
<td>49.70%</td>
<td>50.35%</td>
<td>53.63%</td>
<td>68.95%</td>
<td>71.79%</td>
</tr>
</tbody>
</table>

Source: Twin Falls County, Idaho. Personal correspondence with the authors.