

Modeling the Costs and Benefits of Civil Court Case Resolution

Keaton Miller* Amil Petrin
University of Oregon University of Minnesota, NBER

February 28, 2018

Abstract

Civil courts provide a setting in which society's citizens can right a believed wrong. Resolving the case determines whether a wrong was committed and, if so, the damages caused. Determining which acts are bad can also benefit society by deterring future acts of the same nature. We estimate the costs of case resolution directly from court accounting data. We estimate the benefit to society by assuming that the court's view of the damages—the judgment—is correlated with society's view of the benefit of righting the wrong. Additional benefits come when the resolution of the case deters future bad acts—the size of the judgment reflects the size of the bad acts deterred. We apply our approach to all civil cases handled by the Fourth Judicial Court of Minnesota from 2008 to 2012. Average judgments are magnitudes larger than costs: the average Contract case judgment in our data is \$440,685 and the average cost to the court is \$1,183. Over the sample period, the total court costs for the cases we consider were \$23.1 million and the total judgments were \$1.5 billion.

JEL codes: K15, D61, K41, H11

Keywords: Civil Courts, Cost/Benefit Analysis, Judgments, Settlements, Deterrence

*Miller: keatonm@uoregon.edu. Petrin: petrin@umn.edu. We would like to thank Chief Judge Peter Cahill, Dr. Marcy Podkopacz, Kenneth Bergstrom, and Craig Hagensack of the Fourth Judicial District Court of Minnesota, without whose help access to the data would have been impossible. We are grateful for support from the National Center for State Courts (NCSC) and in particular to David Rottman and for support from the Heller-Hurwicz Economics Institute. Corissa Marson provided superb research assistance. Johnathan Borowsky, Ben Hansen, Joel Waldfogel, and Wes Wilson provided helpful comments, as well as numerous seminar participants at the University of Minnesota, the Research Advisory Council meeting held at the NCSC on April 23, 2015, and the Fourth District Court of Minnesota. All errors are our own.

1 Introduction

How should we determine the costs and benefits of civil court case resolutions? Given data on salaries and other expenses incurred by courts, it is straightforward to estimate the public costs involved in resolving various disputes. The challenge lies in assessing, in dollar terms, the benefit to society of resolving any particular dispute. We present a framework to estimate the benefits of the role civil courts play in society based on the idea that courts “right-the-wrong” caused by bad actions and also deter future bad actions from occurring. We take the court’s view as reflective of society’s view and, in our primary results, assign a benefit of righting-the-wrong equal to the judgment in the case. We scale up that benefit when the judgment deters future similar bad acts. We apply our approach to detailed data on 70,898 individual cases and outcomes from the administrative data of the largest civil court in Minnesota, the Fourth District Court, which is available electronically from 2008 to 2012.

As noted by Demogue (1918), civil courts have existed for centuries to right wrongs, and the sanctions for wrongful acts are usually set with the objective to restore the injured person to their former position. The actions of courts represent normative determinations about the behaviors of citizens under their jurisdiction. Suppose, for example, that Alice and Bob have agreed on a price for Bob to supply a good or service to Alice and have signed a contract to that effect. If Alice pays Bob in advance and Bob chooses not to follow the contract, then Alice can appeal to the civil court system to “right-the-wrong” caused by Bob. If the court renders a judgment and compels Bob to pay Alice, we conclude a wrong has been committed and equate the size of that wrong to the size of the judgment. Our data include 6,757 cases arising out of breach-of-contract claims where the amount of relief requested by the plaintiff is greater than \$15,000 and 51,219 “Minor Civil” cases which include all

requests for damages of less than \$15,000 (see Table 1 for case category definitions).

The role of courts in “righting wrongs” leads to a closely related role of the deterrence of future bad acts (Posner, 1973). If Bob is considering breaking his contract with Alice, but has seen himself or others punished for similar actions, Bob may choose not to commit the bad act. We propose assigning a social benefit to deterrence of any case resolved equal to the number of future bad acts it deterred. We monetize this benefit by using the judgment as the size and cost to society of each future bad act that is deterred.

Some may argue that judgments are transfers which don’t create any social benefit directly and therefore deterrence alone should be used as the benefit of resolving cases (Polinsky and Rubinfeld, 1996, Shavell, 1997). Others may agree that society benefits from righting-the-wrong but disagree on the extent of that benefit (i.e. the rate at which dollars of judgment generate dollars of social benefit). Still others may think deterrence plays no role and give weight only to righting-the-wrong. One can define social welfare in our framework in a variety of ways depending on whether one places weight on making the injured party whole, deterrence of future bad acts of a similar nature, or both. The key idea of our framework is that no matter what social welfare function is adopted, that function requires a measure of the size of bad acts. Each time the court performs its normative function and renders a judgment, the size of that judgment reflects the size of the bad act and is therefore related to the benefit society derives from the court.

Measured court expenditures serve as a natural starting point for assessing the cost of case resolution. The CourTools methodology divides court expenditures on each category, Major and Minor Civil, by the number of cases resolved in each year to obtain an average cost per case for both case categories (National Center for State Courts, 2005). We use this measure and additionally modify it by using the num-

ber of hearings to estimate case-specific costs that vary within each case category. The average cost of resolving Major Civil cases according to CourTools is \$1,037 and under our measure the average cost to the court of resolving cases in the Major Civil subcategories of Wrongful Death and Product Liability is \$1,912 and \$952 respectively.

In our framework the judgment serves as a starting point for the measurement of the benefits of case resolution. Table 1 describes 10 subcategories of Major Civil cases and 7 subcategories of Minor Civil cases. Tables 6 and 7 summarize respectively judgments across the Major and Minor Civil case categories. 33% (62%) of the Major Civil (Minor Civil) cases in our data result in judgments by the court, and plaintiffs receive a dollar award in 29% (56%) of all cases filed. For the Major Civil cases, judgments are sizable, which previews our main finding that the benefits created by courts overwhelm the costs: the average (median) Contract case judgment in our data is \$448,685 (\$27,687) and the average cost is \$1,183. The average (median) judgment for Personal Injury cases in our data is \$93,853 (\$11,101) and the average cost is \$1,087. While we do not see judgments for Minor Civil cases in our main administrative dataset, a random sample of Minor Civil cases for which we collected judgments from paper copies of court documents had an average judgment of \$2,227 and an average cost to the court of \$74.

Settlements occur when plaintiffs agree to withdraw their case due to an agreement with the defendant before the court renders a verdict.¹ 8,162 Major Civil cases and 408 Minor Civil cases were settled in our data. The fact that a settlement was reached implies some wrong occurred and the amount of the settlement is intended to make the injured party whole. As settlements are reached due to the implicit threat of

¹Technically, settled cases must also be “dismissed” by the court. For our purposes, we separate dismissals resulting from an agreement between the parties from dismissals stemming from a judge’s opinion about the case.

the court’s future judgment (Landes, 1971), we attribute the benefit to society of the settlement to the court system.

To circumvent the fact that the size of settlements is private we collect several additional variables from available court documents that are not in our main dataset on both cases that have settled and cases that have judgments. We estimate a relationship between the judgment and these variables in cases with judgments. We then use this relationship to predict for the settled cases what the value of the judgment would have been had the case been entirely resolved by the court system.

The data we collect varies by what is available for different case categories. We focus on Minor Civil cases as the largest category of cases overall and Contract cases as the largest Major Civil subcategory. Conditional on the case having a positive judgment, our explanatory variables can explain 40% of the variation observed in Contract judgments, and 68% of the variation in Minor Civil judgments. To our knowledge we are the first to estimate the size of settled cases using court data on resolved cases.²

Dismissals occur when the court determines no conduct has been presented that meets the legislated standard for remedy. We assign a social benefit of zero to these dismissed cases. We view this zero value as a lower bound to the social benefit of case resolution since dismissals give signals about the outcomes of potential future disputes. While 25% of the cases in our data are dismissed, the costs of processing these cases are minimal and the magnitude of the benefits from cases that are resolved with judgment or settled far outweighs these costs.

We summarize the net benefits of the court’s services to society by combining the benefits of judgments, settlements, and dismissals with the costs (to the court) of

²Danzon and Lillard (1983) used data on medical malpractice claims collected from insurers, including data on settlement amounts, to estimate the probable outcome of litigation were a claim to proceed to a verdict.

case resolution. If we assume the benefit created by case resolution is equal to the judgment, we find the average net benefit (median net benefit) of a Contract case to be \$292,796 (\$42,573). The average net benefit (median net benefit) of a Minor Civil case is \$1,625 (\$1,510). In total, from 2008 to 2012, the Fourth District Court generated \$1.98 billion in net benefits from the 6,757 Contract cases it processed, and \$83.2 million in net benefits from 51,219 Minor Civil cases. For the 5,987 settled Major Civil cases that are not Contract cases, we set the benefit created by the court to a lower bound of zero. For the other 3,151 Major Civil cases that did resolve with judgments, we calculate the net benefit to be \$122 million.

To reflect the landscape of potential social welfare functions mentioned previously, our results can be re-interpreted as a lower bound on the relationship between judgments and the social benefits created by judgments that is necessary in order for courts to provide a net benefit to society. We find that judgments are on average roughly 65 times greater than the court’s costs. If the social benefit of courts comes entirely from righting-the-wrong, as long as society values \$1 of judgment at $\$ \frac{1}{65} \approx \0.016 or more, the court system is on average a net benefit to society. Alternatively, if the social benefit of courts comes entirely from deterrence, as long as the average resolved case reduces the probability of a similar bad act occurring by at least $\frac{1}{65}$ or more, the court system is on average a net benefit to society. If one’s social welfare function includes some combination of these two benefits, the threshold at which the court provides positive net benefits to society is even lower.³

There is a large literature that investigates the impacts of changes in the litigation environment on caseloads, outcomes, filing rates, plaintiff and defendant character-

³Note that this threshold is also a lower bound because society benefits simply from having a venue where citizens can “have their day in court.” The perception that courts are affordable and impartial can eliminate a “wild west” atmosphere which can lead to other bad acts (Djankov et al., 2003).

istics, and other measures of the civil justice system (Kessler and Rubinfeld, 2007). For example, Kakalik et al. (1996) studied the effects of reforms to federal courts designed to shorten the time-to-disposition, and found the reforms increased the number of civil cases pending at any moment while decreasing the length of time before disposition at the right tail of the distribution. We later discuss how our framework can be extended to measure the costs and benefits of changes in the time-to-disposition for cases. We also discuss an extension of our framework to assess the costs and benefits of criminal case resolution.

We proceed by providing additional details about our calculations of benefits and costs in Sections 2 and 3, respectively. We describe our data, which we obtained from Minnesota’s Fourth District Court, in Section 4. Section 5 presents the results of our framework applied to the data. Section 6 concludes with a discussion and suggestions for further research.

2 Benefits

We explain how we calculate the benefits of case resolution for cases with judgments, cases that settle, and cases that are dismissed. These three outcomes cover 98% of all cases in our data.

2.1 Judgments

If cases are neither dismissed nor settled courts will render a verdict and award a transfer between parties. We take the court’s view as society’s view and use the dollar amount of the judgment as a measure of the damages caused by the bad act. The value of resolving the case may include a function of the judgment as the value of righting-the-wrong and/or the value of deterrence equal to the judgment times the

number of future bad acts deterred.

The idea that civil damages are intended to right-the-wrong of injured parties is an old one (Demogue, 1918). Judgments serve as remedies for breaches of contract or other bad acts and are designed to put the plaintiff in the financial position they would have been in had the bad act never occurred (Perillo, 2014, Chapter 14).⁴ In other words, the court must perform a normative counterfactual exercise to determine what lawful behavior should have taken place and what outcome would have resulted.

Using the judgment as the benefit of case resolution can be thought of as a natural outcome of an equilibrium view of the political economy of law, reviewed by McNollgast (2007). If the litigation environment is designed by legislators and implemented by judges who face electoral scrutiny, judgments should reflect society's opinion of harm caused by the bad act even if they are made by judges with alternative individual views (Eskridge, 1991). As society changes its views about the harms caused by different acts, and legislators update damages for different kinds of bad acts, judgments, and thus the benefits calculated through our approach, will update accordingly.

The benefit of deterrence comes from the number of future wrongs avoided as a consequence of the ruling. If one views judgments as simply transfers between agents – once the damage has been done, it has been done – then the value to society of resolving cases comes only through the deterrence mechanism (Posner, 1973, Polinsky and Rubinfeld, 1996, Shavell, 1997). If we followed this view that each case resolved by the court deterred, on average, a single bad act of equal magnitude, we would find that the benefit of case resolution is exactly equal to the judgment.

⁴Though punitive damages are awarded in some jurisdictions for certain types of cases, and some have argued for increasing the level of damages awarded out of a desire for increased deterrence (Farber, 1980, Polinsky and Shavell, 1998), they are not widely used in Minnesota (Haugen and Tarkow, 1985) and therefore are largely absent from our data.

While we don't have measures of other effects that deterrence may induce, there are other avenues through which deterrence may create social benefits. The ability of court systems to "right-the-wrong" *ex post* and the knowledge that wronged parties will have their "day in court" attenuates *ex ante* fears. Following the example from the introduction, in the absence of a functioning court system, Alice may choose not to contract with Bob at all even if Bob planned to fulfill the contract. In this scenario, a transaction that should have occurred does not, leading to reduced economic output (Grout, 1984).

Before turning to settlements, we note that our data sheds light on two prominent competing theories that have very different implications for plaintiff win rates. Priest and Klein (1984) present a model of the litigation process to examine the relationship between disputes that are settled and those that are tried and judged by the court. They show that when potential litigants form rational estimates of judicial decisions, the rate of plaintiff victory in cases decided by the court should be 50%. However, if potential litigants have asymmetries in their reputational interests, in their attitudes about risk, or in their expectations of trial awards, any rate of plaintiff victory is possible (Shavell, 1996). We examine plaintiff win rates in our data in Section 5.2.2.

2.2 Settlements

Parties may choose to settle before the court renders judgment. Though settlements do not involve a formal admission of fault, money changes hands in such a way as to suggest the underlying dispute would have had merit were it to be entirely resolved by the court. Since the settlement would not have occurred without the impending threat of the court's judgment, the benefit to society should be attributed to the court system. While settlement amounts are almost always confidential, agents can

still observe the circumstances of the case and the fact that one party paid another party to settle the case, suggesting the possibility of both benefits of righting-the-wrong and benefits of deterrence.

Since we do not directly observe the size of the settlement, we follow the logic of Spier (2007). She shows that if parties have symmetric information about the expected outcome of the case and litigation is equally costly for both sides, settlement amounts are equivalent to the expected judgment. We estimate what the judgment would have been if the settled case had been decided by the court by using cases with observed judgments that have similar characteristics.

Our prediction model for judgments is given by

$$J_i = \alpha_k R_i + X'_{ik} \beta_k + \epsilon_i \quad (1)$$

where, for an individual case i and a case category k , J_i is the dollar amount of the judgment, R_i is the dollar amount of the requested relief in the plaintiff’s initial case filing, X_{ik} is a vector of observable case characteristics which varies by case category as described in Section 4, $\{\alpha_k, \beta_k\}$ are parameters to be estimated that may vary by case category, and the error term is the ϵ_i . We estimate the coefficients of this model using cases with judgments and use those coefficients to predict J_i for cases that are settled.

2.3 Dismissals

Cases can be dismissed in two ways, either with or without prejudice.⁵ When a case is dismissed “with prejudice,” the plaintiff may not refile an action based on the same underlying issue against the same defendant. When a case is dismissed “without

⁵In addition to court-ordered dismissals, the parties may agree to dismiss the case voluntarily. This is called a “stipulation for dismissal” and occurs in 1% of cases in our data.

prejudice,” the plaintiff may file a new case regarding the same issue at some future time, with the judge often providing instructions on how to do so. Regardless of the type of dismissal, the court is assigning a value of zero to the judgment. In keeping with our framework, we assign that same zero value of benefit to dismissed cases.

By our accounting, dismissals will always be a net loss to society due to expended court resources required to render the dismissal. This net loss is a lower bound on the benefit to society as case dismissals may serve as signals to potential future litigants. Consider a potential plaintiff who is uncertain about filing a case. If she observes a similar case get dismissed with prejudice she and others that observe it may not file future cases, which would reduce the future court costs of resolving those cases. If she observes a similar case that is dismissed without prejudice, the potential plaintiff may learn her own case does have merit, but must be brought to the court in a particular way. In either situation these dismissals may lead to future judgments or settlements, and may also reduce the number of future dismissals, thus leading to positive benefits to society.

3 Costs

We construct measures of the costs of resolving different cases by apportioning the total resources allocated to a particular court across individual cases using measures of the intensity of court resources used by those cases. We start by adopting the CourTools Trial Courts Performance Measures methodology, which calculates a measure of the average cost (to the court) per case processed by case category (National Center for State Courts, 2005). Many state court systems, including Minnesota’s, have adopted the CourTools methodology.

The CourTools methodology calculates the average cost per case by aggregating

total court expenditures over a period of time, including salaries and benefits for judicial officers and court staff, supplies, equipment, and services used to operate the courthouse. It also includes all facility expenses, including rent, maintenance and insurance costs. These total court expenditures are split among the various civil case categories according to the court’s time allocation of personnel – judges and other court staff – across the different types of cases. These total costs then are divided by the number of case dispositions over the time period to obtain the average cost per case for that civil category. Specifically, the CourTools measure calculates a cost per case c_i , via the following equation:

$$c_i = \frac{E \times FTE_k}{n_k} \quad (2)$$

where E is the total annual court expenditures, FTE_k is the fraction of employee time allocated to the case category in that year, and n_k is the number of cases resolved in that category in the same time period. Note that c_i will be constant for all cases within a case type k .

While the CourTools measure accurately captures the average costs of cases per type, for questions that require consideration of the distribution of costs and benefits across different cases, it is important to allow the costs to vary by case. For example, the analysis of policy changes that might lead to changes in the time-to-resolution of different cases or changes in which cases get filed must determine which cases are marginal cases. Indeed, cases with more “at stake” – as measured by initial claims, ultimate awards, and social benefits per our framework – may have higher court costs, holding all else constant.

We use the number of hearings held for each case to construct an extension of the CourTools cost measure. We weight the CourtTools measure by taking the average

expenditure for that case category and scaling it by the number of hearings for a particular case, following:

$$c'_i = (E \times FTE_k) \frac{1 + h_i}{\sum_{j=1}^{n_k} 1 + h_j} \quad (3)$$

where c'_i is the hearing-adjusted measure of cost, h_i is the number of hearings held for case i and E and FTE_k are defined per equation 2. Note that c'_i varies within a case category and c'_i reduces to the CourTools approach if you set the hearing weight $h_i = 0$ for all i .

4 Data

Our data consist of the universe of civil cases from the Fourth Judicial District Court of Minnesota filed from 2008 to 2012 that had final dispositions before July 1, 2013. The Fourth District Court serves Hennepin County, which includes Minneapolis and many of the Twin Cities suburbs. About 21% of the population of Minnesota lives in the Fourth District. For each case, we observe the file date, parties, case type, judicial assignment, hearing details, and final disposition, including fees and judgments assessed on a per-party basis. We focus on disputes that involve a monetary claim.⁶

We verified the information in our extract using all available external resources. First, we collected reports from all local periodicals and third-party legal databases that cover Hennepin County cases: *Twin Cities Jury Verdict Report*, *Verdicts and Settlements Quarterly*, and *Westlaw*. All together, over the sample time period these sources reported on 714 cases. We found 95% of these cases in our data. Where matches occurred, we verified the identities of the parties, the filing date, and the

⁶The data contain a number of other cases representing non-monetary disputes, including, among others, harassment, implied consent, and name changes.

final disposition, including the amount of the judgment. Second, for a random sample of Contract and Minor Civil cases that were settled or judged by the court, described in more detail below, we compared data from paper copies of court documents to the overall administrative electronic dataset. We found complete agreement on the measured variables. Finally, we collected an additional sample of 100 cases across all categories from the public information terminal at the Hennepin County Court building, which draws from a court recording system which is separate from our administrative data, and matched 96 of them to our data. For those 96 cases that matched, the public-facing records matched ours on the same variables.⁷

The Fourth District categorizes civil cases roughly according to the primary features of the dispute. Cases are broadly categorized by the District into “Major” and “Minor” categories with “Major” cases being handled by elected judges and “Minor” cases being handled by hearing officers. The “Major” cases are then sub-categorized by the Fourth District according to subject matter. These sub-categories include, for example, Contract cases, in which plaintiffs claim that defendants breached a binding agreement, and Personal Injury cases, in which plaintiffs claim that a physical injury was caused by a defendant. The Court does not sub-categorize Minor Civil cases, which we discuss further below. The top panel of Table 1 describes the categories of Major Civil cases as defined by the Court.

Table 2 shows that we observe 70,898 civil cases in our selected categories throughout the period from 2008 to 2012. Most Major Civil case types experience a decline in filing rates throughout the period, with the notable exception of Consumer Credit, which are breach of contract cases in which the plaintiff is a corporation, the defendant is an individual, and the contract amount does not exceed \$20,000. While

⁷The cases that were not found across these checks did not have a final disposition as of the time of our extract.

information at the start of the period is unavailable due to a change in the category definitions used by the Fourth District, Consumer Credit cases increase by 80% from 2009 to 2012, likely reflecting the severe financial crisis that began in 2008.

The largest category of civil cases are Minor Civil cases, also known as “Conciliation” cases. These cases involve claims of \$15,000 or less.⁸ While our electronic administrative data includes the outcome type of Minor Civil cases (i.e. judgment, settlement, or dismissal), it does not record the judgment amounts for these cases. The Court also does not sub-categorize these cases by dispute type as it does with Major Civil cases.

To address both of these concerns, we randomly selected 996 Minor Civil cases and examined their paper records. Using the language in the formal complaint of the plaintiff, we develop sub-categories for these cases described in the lower panel of Table 1. The two largest sub-categories are Debt, in which plaintiffs claim non-payment of contracted debt, and Leasing, in which plaintiffs claim a breach of a rental real estate contract.

Table 3 reports the number of cases of each subcategory seen in our random sample. We apply the relative share of each subcategory observed in our random sample to the overall count of Minor Civil cases to estimate the filings per subcategory per year. Debt cases make up nearly 70% of our sample, and 16% of our sample consists of Leasing cases.

Our framework assigns a benefit to settled cases equal to the size of the settlement. As settlement amounts are not disclosed we use our sample to predict what the judgment would have been had the case been fully processed by the court. For

⁸The Court includes some administrative actions within the “Minor Civil” division in addition to Conciliation cases. We focus on Conciliation cases as the category within the Minor Civil division that results in decisions by the Court and treat the terms “Minor Civil” and “Conciliation” as synonymous.

both cases with judgments and cases with settlements, we collect other information from the initial filing documents of Minor Civil cases, including the amount of relief requested, as well as indicators for the presence of counterclaims and to identify whether or not the case was contested. The first two panels of Table 4 report summary statistics for the Minor Civil cases we collected that were either judged by the Court (Panel 1) or settled (Panel 2). The distribution of requested relief is similar across the case outcomes, though cases which were settled started with slightly higher claims on average.

We similarly supplement our administrative data for Contract cases within the Major Civil division by collecting variables from initial case filing documents for 353 Contract cases that were judged by the Court and 199 Contract cases that were settled. The filing documents for Contract cases offer a much richer description of the dispute and therefore we are able to collect a richer set of variables than we can for Minor Civil cases. For these cases, we collect the amount of relief requested, the number of alleged counts, the size of the overall complaint in pages, an indicator for the presence of contract or debt documentation, and variables describing that documentation including the number of financial obligation documents included and the total financial obligation they document, as well as an indicator for the presence of other exhibits and the number of those exhibits present.⁹

The last two panels of Table 4 report summary statistics for the Contract cases we collected. Cases with judgments are in Panel 3 and settlements are in Panel 4. The average judgment in our sample was \$366,135, which is slightly smaller than the overall average judgment of \$440,685 for Contract cases in our administrative data.

⁹The total financial obligation can differ substantially from the amount of relief requested. For example, if the plaintiff contracted with a defendant for \$300,000, and the defendant paid only \$100,000, the relief requested may be \$200,000, while the documented financial obligation would equal \$300,000.

On average, settled cases begin with smaller requests for relief, shorter complaints, and come with smaller amounts of documentation.

5 Results

We estimate the costs and benefits of civil court case resolution across three different outcome types: judgments, settlements, and dismissals. We first present the costs of case resolution for each type and then move to the benefits.

5.1 Costs

To calculate the net social benefit of cases, we must first calculate the court costs of handling each case. We obtain the CourTools costs reported by the Fourth District Court for 2012. The Court reported a single average cost for each division. Major Civil cases cost the Court \$1,037, while Minor Civil cases cost the Court \$58.

For policy questions which require more disaggregated direct measures of individual case costs, we extend the CourTools methodology by weighting cases according to the number of hearings held before final disposition as shown in Equation 3. By construction, the average Major Civil case cost across these two measures is equal. However, our measure results in a higher average cost for Minor Civil cases, \$71, than does the CourTools division. This is because CourTools includes a number of zero-hearing administrative cases which increases the denominator on a numerator of the same base costs.

Column 1 of Table 5 reports the mean number of hearings held for each category of cases and Column 2 reports the mean cost per category under our hearing-weighted approach. The category with the largest number of hearings on average is Wrongful Death with 2.44 hearings per case, and the category with the lowest number of hear-

ings on average is Consumer Credit with 0.79 hearings per case. The distribution of the mean cost per category across the Major Civil division reflects this dispersion as the mean cost to the court for Wrongful Death cases is \$1,912 while the mean cost to the court for Consumer Credit cases is \$995.

Column 3 of Table 5 reports the 99th percentile cost for each category. The right tail of these case categories reflects significant dispersion. The 99th percentile Malpractice case costs the court \$11,673 to resolve, while the 99th percentile Consumer Credit case costs only \$2,223 to resolve. These results suggest that our hearing-weighted cost measure may perform better in answering policy questions related to specific subsets of cases.

5.2 Benefits

5.2.1 Judgments

Our framework uses a function of the size of the judgment to measure the social benefit created by case resolution. Table 6 reports the number of cases in each category and the number which ended with a judgment in Columns 1 and 2. The top panel reports the summary of the judgments within the Major Civil categories as determined by the Fourth District Court. While this administrative data reports whether there was a judgment for Minor Civil cases, it does not report the amount and we report results from our random sample of Minor Civil cases in Table 7 below.

Table 6 reveals significant dispersion in the frequency of awards across Major Civil case categories. 66% of Consumer Credit cases filed lead to a judgment while only 11% of Personal Injury cases do. Column 3 reports the number of cases in which plaintiffs receive money as part of the Court’s judgment. Across the Major Civil division, plaintiffs were awarded money by the court in 5,621 cases out of 19,626

filed, or 29% of the time. For example, plaintiffs are awarded judgments in 64% of Consumer Credit cases filed, while plaintiffs are awarded judgments in only 3.6% of Wrongful Death cases filed.

Columns 4 and 5 of Table 6 report the mean and median size of judgments that are non-zero. The average judgment varies dramatically within the Major Civil division, from \$9,383 for Consumer Credit cases to \$440,685 for Contract cases. The average judgment for Wrongful Death cases is highest, at \$1,388,373. Many of these distributions are skewed as the median judgment for Consumer Credit cases is \$7,737 and the median judgment for Contract cases is \$27,687.

For our main results, we assign a value of the social benefit of resolving a case equal to the judgment for the case. That value may come from righting-the-wrong, deterrence, or some combination of the two. When we subtract from this social benefit our hearing-weighted measure of cost calculated from Equation 3, we form the net social benefit of resolving a case. We report the associated mean and median of the net social benefit in Columns 5 and 6 of Table 6. These reported net benefits are lower than the judgments only slightly as the costs of resolution are small relative to the size of the judgments. The mean (median) net benefit of Contract cases is \$418,261 (\$24,300) and the mean (median) net benefit of Consumer Credit cases is \$8,026 (\$6,432). If instead we assigned a social benefit of case resolution equal to twice the judgment, the mean (median) net benefit of Contract cases is \$837,948 (\$49,711), and the mean (median) net benefit of Consumer Credit cases is \$17,188 (\$13,975).

In Table 7 we repeat this analysis for the random sample of Minor Civil cases we collected. The columns in this table mirror those in Table 6. As with the Major Civil cases there is considerable dispersion in the size of judgments and plaintiff win rates. The mean judgment within the Debt category is \$2,009 and the mean judgment

within the Negligence category is \$2,856. Plaintiffs receive a positive judgment in 60% of Debt cases filed, while plaintiffs receive a positive judgment in 45% of Wrongful Charges cases filed. Following the calculation described above, the mean (median) net benefit for Debt cases, the largest category, is \$1,875 (\$1,314), and the mean (median) net benefit for Leasing cases, the second largest category, is \$2,461 (\$1,885).

5.2.2 Settlements

Table 8 reports the the number of settled cases within each of our case categories. Settlement rates vary across case categories. 66% of Personal Injury cases are settled while only 19% of Consumer Credit cases are settled. Employment, Malpractice, and Mechanics Lien cases have similar settlement rates near 45% while Contract and Property Damage settlement rates are closer to 30%. Settlements occur rarely in Minor Civil cases; within our random sample of 996 Minor Civil cases, we observe 45 settlements in Debt cases, 10 each in Leasing Negligence, 4 in Miscellaneous Contracts, 3 in Wrongful Charges, and 2 in Other cases.

The top two panels of Table 9 report the results from our regression of judgments on observed case characteristics. The estimated parameters of Equation 1 for the Minor Civil cases are on the left and the Contract cases are on the right. For each case type, we collect observables available in original filing documents, including the requested relief, and variables describing the degree of documentation. Our collected observables capture 68% of the variation in Minor Civil judgments, and 40% of the variation in Contract judgments.

Holding all else constant, an increase in requested relief of \$1 is associated with an increase in the value of the judgment of \$0.79 in Minor Civil cases and \$0.22 in Contract cases. For Contract cases, a \$1 increase in the amount of the debt that is documented is associated with a \$0.13 increase in the judgment. Each alleged count

and individual loan document leads on average to a lower judgment amount on the margin.

Applying the Contract coefficients to the observed characteristics of 199 settled Contract cases in our random sample implies a mean (median) judgment amount of \$289,668 (\$254,306), less than the average judgment amount observed in our sample of cases with judgments. After accounting for costs, the mean (median) net benefit for settled Contract cases is \$288,581 (\$253,087).

Our other two explanatory variables for the Minor Civil regression enter with the expected sign, as cases that are either contested by the defendant or have a counter-claim result on average in lower judgments by \$562 and \$365 respectively. Negligence cases have lower judgments, all other things equal. Applying these coefficients to the observed characteristics of the 74 settled Minor Civil cases in our random sample in an analogous way implies an mean (median) judgment of \$2,327 (\$1,868), slightly higher than the average judgment observed for Minor Civil cases, but well within the standard deviations of both the observed and predicted judgment amounts. After accounting for costs, the mean (median) net benefit for settled Minor Civil cases is \$2,279 (\$1,827).

As we discussed in Section 2.1, Priest and Klein (1984) argue that plaintiffs and defendants with similar information about a case should settle to avoid the private costs of trial and that, therefore, cases that are not settled and are decided by the courts should result in victory of the plaintiff 50% of the time. Combining Column 2 of Table 8 with Column 3 of Table 6 allows us to test this 50% hypothesis. Of the 19,626 cases filed in the Major Civil division, 8,162 were settled. Of the remaining 11,464 cases, 5,621, or 49%, resulted in victories for the plaintiff, consistent with their hypothesis at this level of aggregation.

If we instead condition on the subcategories of our civil case types, the message

is very different. For example, of the 4,582 Contract cases which were not settled, 2,963 of them, or 65%, ended in a positive judgment for the plaintiff. On the other hand, of the 101 Malpractice cases which were not settled, only 9 ended in positive judgments for the plaintiff. Plaintiffs were awarded money in 81% of the Property Damage cases which were not settled. Our results are consistent with what Waldfogel (1995) finds when examining cases filed in the Southern District of New York from 1984 to 1987—that observed win rates differ substantially from the 50% hypothesis.¹⁰

5.2.3 Dismissals

Our framework assigns a benefit of zero to dismissed cases, reflecting the judge’s view that the case does not require legal remedy. As we noted earlier, this is a lower bound to the benefit to society. We report the number of dismissed cases in Column 2 of Table 10. As with judgments, there is considerable dispersion in dismissal rates among case categories within the Major Civil division. While 88% of Product Liability cases are dismissed, only 10% of Property Damage cases are dismissed. The variation in dismissal rates is also seen within the subcategories of Minor Civil cases. 75% of Improper Seizure cases are dismissed while only 26% of Negligence cases are dismissed.

Column 3 of Table 10 reports the estimated cost for dismissed cases. Since we assign a lower bound value of zero to the benefit of case dismissals, the net benefit is simply equal to our hearing-weighted cost measure. This cost varies within the Major Civil categories. Dismissed Malpractice cases cost the court \$1,522 on average, while dismissed Consumer Credit cases cost the court \$678 on average. The mean loss for Minor Civil cases varies from \$25 for Debt cases to \$76 for Improper Seizure

¹⁰Waldfogel (1998) uses differences between the adjudication rate and the plaintiff rate to provide evidence that the observed divergence from the 50% hypothesis is likely driven by divergent expectations about trial outcomes, rather than differences in information.

cases. The total size of judgments in any year for cases with judgments swamps these minimal costs incurred by the court when dismissing these cases.

5.3 A Lower Bound to the Total Net Benefits Provided by Civil Court Case Resolution

If we assign a benefit of case resolution equal to the judgment we obtain the results seen in Table 11. The mean and median of our net measure for Contract and Minor Civil cases is shown in Column 1. Across these two types, we find a total net benefit of \$2.06 billion for the period we study. Column 2 reports net benefits when we assign a lower bound value of zero to all settlements and dismissals. For the non-Contract Major Civil cases, the total net benefit of resolving those cases over the period is \$113 million.

Table 11 also explores the impact of our hearing-weighted cost measure. Columns 3 and 4 reproduce Columns 1 and 2 but use the CourTools measure directly instead of our hearing-weighted cost measure. The average net benefit per case is similar across Columns 1 and 3 and across Columns 2 and 4, but the median decreases for most case types. To the extent that future work may consider marginal costs and benefits, as opposed to average costs and benefits, our cost measure offers a way to allow for more cost heterogeneity relative to the CourTools measure.

6 Conclusions and future work

We introduce a framework for evaluating the benefits provided by the existence of the courts. These benefits derive from the role courts play in righting wrongs and in providing appropriate incentives to deter bad behavior. We take the court’s view as

society’s view and interpret judgment amounts as the benefit to society of ‘righting-the-wrong.’

We find that the benefits of courts far outweigh the costs. For the 6,757 Contract cases we observe over the sample period across all three outcome types, we calculate an average social net benefit of \$292,796 per case. For the 12,872 other Major Civil cases, when we set the benefit of settlements to a lower bound of zero, we calculate an average of \$8,196 per case. The average Minor Civil case generates a net benefit of \$1,625 which adds up because there are 51,219 cases in our data.

Our framework can serve as a starting point for calculating the costs and benefits of any policy change that affects the number or type of cases, or the time-to-resolution of cases. For example, over the last decade, state budgets have experienced severe fiscal pressure due to a combination of forces on both revenues and expenses. Seeking to balance budgets, states have turned to court systems as a source of potential cutbacks. As a consequence, many observers have raised concerns about the economic effects of reducing the capacity of court systems (see e.g. Magnuson et al., 2014). We discuss how our framework could be tailored to understand the loss to society coming from an increased time-to-resolution of cases and then discuss an extension of our framework to criminal cases.

Increases in time-to-resolution. The evaluation of court performance is largely based on the court meeting or exceeding nationally set time-to-case-resolution standards. While these times may be positively correlated with the costs to plaintiffs of bringing a case to court, they do not directly measure the benefits of case resolution to society. Even though one might be resolving (e.g.) 90% of civil cases within a year the economic benefit of resolving an extra case may be significantly higher than the cost of resolving it. Alternatively, if the time to case resolution increases, as it has recently in several states including California (McKinley, 2011) and Virginia (Cooper,

2014), important cases that would have been resolved may get squeezed out, leading to a loss to society. We propose using variation in time-to-disposition in the data to identify which cases are marginal cases by looking to see the types of cases that appear or disappear on the margin when time-to-disposition increases or decreases.

The value of criminal courts. Our framework can also be tailored to estimating the value that the criminal justice system provides to society. Again, the value of courts comes from righting-the-wrong in the eyes of the victim and society and the future deterrence of bad acts. Similar to civil cases, for criminal cases with monetary penalties, the penalties can be used to measure the benefit of righting-the wrong and/or deterrence. For criminal cases which result in jail time for the defendant, society is willing to incur both the costs of incarceration for the individual and the value of lost output of the individual during the time they are incarcerated. If these incurred costs are linked to the perceived benefits of resolving the criminal case—the “judgment” in criminal cases—we may be able to use them as a starting point for the value of both righting-the-wrong and/or future deterrence.

References

- Ron Cooper. The price of delay: Why court backlog is a serious problem for charlottesville. *C-VILLE Weekly*, 2014. URL <http://www.c-ville.com/the-price-of-delay-why-court-backlog-is-a-serious-problem-for-charlottesville/#.WjFtHFQ-eL8>.
- Patricia Munch Danzon and Lee A Lillard. Settlement out of court: The disposition of medical malpractice claims. *The Journal of Legal Studies*, 12(2):345–377, 1983.
- René Demogue. Validity of the theory of compensatory damages. *The Yale Law Journal*, 27(5):585–598, 1918. ISSN 00440094. URL <http://www.jstor.org/stable/786215>.
- Simeon Djankov, Rafael La Porta, Florencio Lopez-de Silanes, and Andrei Shleifer. Courts. *The Quarterly Journal of Economics*, 118(2):453–517, 2003. doi: 10.1162/003355303321675437. URL <http://dx.doi.org/10.1162/003355303321675437>.
- William N. Eskridge. Overriding supreme court statutory interpretation decisions. *Yale Law Journal*, 101(2):331–455, 1991. URL <http://www.jstor.org/stable/796805>.
- Daniel A. Farber. Reassessing the economic efficiency of compensatory damages for breach of contract. *Virginia Law Review*, 66:1443–1484, 1980.
- Paul A Grout. Investment and Wages in the Absence of Binding Contracts: A Nash Bargaining Approach. *Econometrica*, 52(2):449–460, 1984. doi: 10.2307/1911498. URL <http://www.jstor.org/stable/1911498><http://www.jstor.org/stable/1911498>.

- Gary J. Haugen and Howard B. Tarkow. Punitive damages in minnesota: The common law and developments under section 549.20 of the minnesota statutes. *William Mitchell Law Review*, 11(2):353–393, 1985.
- James S. Kakalik, Terence Dunworth, Laural A. Hill, Daniel McCaffrey, Marian Oshiro, Nicholas M. Pace, and Mary E. Vaiana. *Just, Speedy, and Inexpensive? An Evaluation of Judicial Case Management Under the Civil Justice Reform Act*. RAND, Washington D.C., 1996. ISBN 0-8330-2472-8.
- Daniel P. Kessler and Daniel L. Rubinfeld. Chapter 5 Empirical Study of the Civil Justice System. *Handbook of Law and Economics*, 1:343–402, 2007. ISSN 15740730. doi: 10.1016/S1574-0730(07)01005-5.
- William M. Landes. An economic analysis of the courts. *Journal of Law and Economics*, 14(1):233–259, 1971.
- Eric J Magnuson, Steven M Puiszis, Lisa M Agrimonti, and Nicole S Frank. The Economics of Justice. Technical report, DRI, Chicago, 2014. URL http://www.abajournal.com/files/DRIWhitePaper.compressed_.pdf.
- Jesse McKinley. As budgets continue to shrink, the lines will grow in california civil courts. *The New York Times*, 2011. URL <http://www.nytimes.com/2011/08/24/us/24courts.html>.
- McNollgast. Chapter 22 The Political Economy of Law. In A. Mitchell Polinsky and Steven Shavell, editors, *Handbook of Law and Economics*, volume 2, chapter 22, pages 1651–1738. Elsevier, 2007. ISBN 9780444531209. doi: 10.1016/S1574-0730(07)02022-1. URL <http://linkinghub.elsevier.com/retrieve/pii/S1574073007020221>.

National Center for State Courts. Courtools trial court performance measure 10: Cost per case. Technical report, National Center for State Courts, 2005. URL http://www.courtools.org/~media/Microsites/Files/CourTools/courtools_Trial_measure10_Cost_Per_Case.ashx.

Joseph Perillo. *Contracts*. West Academic Publishing, 7 edition, 2014. ISBN 0314287701.

A. Mitchell Polinsky and Daniel L. Rubinfeld. Optimal awards and penalties when the probability of prevailing varies among plaintiffs. *RAND Journal of Economics*, 27(2):269–280, 1996. ISSN 0741-6261. doi: 10.3386/w4507.

A. Mitchell Polinsky and Steven Shavell. Punitive damages: An economic analysis. *Harvard Law Review*, 111:869–962, 1998.

Richard A. Posner. An Economic Approach to Legal Procedure and Judicial Administration. *The Journal of Legal Studies*, 2(2):399–458, jun 1973. ISSN 0047-2530. doi: 10.1086/467503. URL <http://www.journals.uchicago.edu/doi/10.1086/467503>.

George L. Priest and Benjamin Klein. The Selection of Disputes for Litigation. *The Journal of Legal Studies*, 13(1):1–55, jan 1984. ISSN 0047-2530. doi: 10.1086/467732. URL <http://www.journals.uchicago.edu/doi/10.1086/467732>.

Steven Shavell. Any frequency of plaintiff victory at trial is possible. *Journal of Legal Studies*, 25:493–501, 1996.

Steven Shavell. The Fundamental Divergence Between the Private and the Social Motive to Use the Legal System. *The Journal of Legal Studies*, 26(S2):575–612,

jun 1997. ISSN 0047-2530. doi: 10.1086/468008. URL <http://www.journals.uchicago.edu/doi/10.1086/468008>.

Kathryn E. Spier. Chapter 4 Litigation. *Handbook of Law and Economics*, 1:259–342, 2007. ISSN 15740730. doi: 10.1016/S1574-0730(07)01004-3.

Joel Waldfogel. The Selection Hypothesis and the Relationship between Trial and Plaintiff Victory. *Journal of Political Economy*, 103(2):229–260, 1995. ISSN 00223808, 1537534X. URL <http://www.jstor.org/stable/2138639>.

Joel Waldfogel. Reconciling asymmetric information and divergent expectations theories of litigation. *Journal of Law & Economics*, 41(2):451–476, 1998.

7 Tables

Table 1: Case category definitions

Category	Definition
Major Civil¹	
<i>Consumer Credit</i>	A breach of contract case in which the plaintiff is a corporation or organization, the defendant is an individual, and the contract amount does not exceed \$20,000.
<i>Contract</i>	The basis of the lawsuit is a breach of contract agreement.
<i>Employment</i>	Cases arising from disputes relating to employment agreements.
<i>Malpractice</i>	Lawsuit alleging medical or attorney malpractice
<i>Mechanics Lien</i>	Cases filed for the purpose of securing priority of payment of the price of work performed on a building.
<i>Personal Injury</i>	One party claims injury caused by some action of the other.
<i>Product Liability</i>	Lawsuit alleging a maker of manufactured goods is responsible for injury to a person as a result of a defective product.
<i>Property Damage</i>	Lawsuit alleging misconduct which results in damage to property.
<i>Replevin</i>	An action to recover goods unlawfully taken in situations where the ownership of the property is not sufficiently clear for criminal charges to be brought.
<i>Wrongful Death</i>	Action brought by a trustee alleging injury, which resulted in death, caused by the wrongful act or omission of any person or corporation.
Minor Civil²	Claims of damages under \$15,000. Also called "Conciliation."
<i>Debt</i>	Non-payment of contracted debt.
<i>Improper Seizure</i>	Law enforcement inappropriately seized property.
<i>Leasing</i>	Breach of rental real estate contract.
<i>Misc. Contracts</i>	Breach-of-contract of a kind or in a context not captured by other categories.
<i>Negligence</i>	Claim of harm caused by carelessness.
<i>Wrongful Charges</i>	Charges assessed without delivery of goods or services.
<i>Other</i>	All cases not included in above categories. In our sample, these included cases based on domestic issues and harassment.

¹Major Civil category definitions taken from Minnesota's Fourth Judicial District Court via http://www.mncourts.gov/mncourtsgov/media/scao_library/documents/eFile%20Support/Handout-Case-Type-Index.pdf

²The Court does not subdivide Minor Civil cases. We introduce a sub-categorization of Minor Civil cases based on subject matter.

Table 2: Cases filed in the Fourth Judicial District Court of Minnesota, by category and year, from administrative data

Case Category	2008	2009	2010	2011	2012	Total
Major Civil	4,011	4,584	3,897	3,695	3,772	19,629
Consumer Credit	¹	441	517	684	796	2,438
Contract	1,787	1,513	1,427	1,142	888	6,757
Employment	217	231	199	219	233	1,099
Malpractice	33	44	31	47	37	192
Mechanics Lien	211	140	71	38	41	501
Personal Injury	1,342	1,413	1,355	1,240	1,127	6,477
Product Liability	180	550	157	28	36	951
Property Damage	96	66	32	233	223	650
Replevin	118	115	65	36	35	369
Wrongful Death	27	71	43	28	26	195
Minor Civil ²	11,127	10,590	10,199	10,116	9,187	51,219
Total	15,138	15,174	14,098	13,811	12,629	70,898

Our data only includes cases which had a final disposition as of July 31, 2013. We consider only those case categories which involve monetary disputes.

¹Consumer Credit was separated from Contracts in 2009.

²The Court does not subcategorize Minor Civil cases. In Table 3, we use a random sample of Minor Civil cases to divide the category into several subcategories and report estimated filings for each subcategory.

Table 3: Minor Civil cases filed by subcategory and year, estimated from random sample

Minor Civil subcategory	Seen in sample	Estimated filings by year					Total
		2008	2009	2010	2011	2012	
Debt	687	7,675	7,305	7,035	6,978	6,337	35,329
Improper Seizure	12	134	128	123	122	111	617
Leasing	159	1,776	1,691	1,628	1,615	1,467	8,177
Misc. Contracts	27	302	287	276	274	249	1,388
Negligence	70	782	744	717	711	646	3,600
Wrongful Charges	33	369	351	338	335	304	1,697
Other	8	89	85	82	81	74	411
Total Minor Civil	996	11,127	10,590	10,199	10,116	9,187	51,219

The Court does not subdivide Minor Civil cases. We collected a random sample of Minor Civil case filing documents and categorized them according to their broad subject matter, as defined in Table 1. We use the relative frequencies observed in our random sample to estimate the cases filed in each subcategory and year shown here.

Table 4: Summary statistics for case data coded from random sample of initial filing documents

Variable	Obs.	Mean	10th percentile	Median	90th percentile
Minor Civil - Judgment	602				
Judgment amount		\$2,120	356	1,481	5,360
Requested relief		\$2,506	514	1,730	6,114
Indicator: Contested		.26	0	0	1
Indicator: Counterclaim		.04	0	0	0
Minor Civil - Settlement	74				
Judgment amount		N/A			
Requested relief		\$2,719	540	2,030	6,787
Indicator: Contested		.11	0	0	1
Indicator: Counterclaim		.04	0	0	0
Contract - Judgment	353				
Judgment amount		\$366,135	14,379	160,400	1,000,000
Requested relief		\$399,998	29,401	122,871	983,952
Alleged counts		3.33	1	3	6
Pages in complaint		26.5	5	16	58
Indicator: Documentation		.94	1	1	1
Loan notes included		.64	0	0	2
Total debt documented		\$403,507	0	0	1,000,000
Indicator: Exhibits attached		.46	0	0	1
Number of exhibits		2.96	0	2	6
Contract - Settlement	199				
Judgment amount		N/A			
Requested relief		\$126,456	5,360	50,000	253,927
Alleged counts		3.25	1	3	6
Pages in complaint		17.8	4	10	34
Indicator: Documentation		.89	0	1	1
Loan notes included		.36	0	0	1
Total debt documented		\$78,800	0	0	50,000
Indicator: Exhibits attached		.35	0	0	1
Number of exhibits		1.61	0	1	4

Table 5: Hearing-weighted cost measure by case category

Type	Mean # Hearings	Hearing-weighted cost	
		Mean	99th %ile
Major Civil	1.02	\$1,122	\$6,670
Consumer Credit	0.79	995	2,223
Contract	1.13	1,183	5,003
Employment	1.12	1,178	6,670
Malpractice	2.27	1,818	11,673
Mechanics Lien	1.04	1,134	5,003
Personal Injury	0.96	1,087	7,226
Product Liability	0.71	952	2,223
Property Damage	0.92	1,067	3,335
Replevin	0.86	1,036	3,335
Wrongful Death	2.44	1,912	10,005
Minor Civil¹ (Conciliation)	0.96	\$71	\$145
Debt	0.92	69	109
Improper Seizure	1.17	78	109
Leasing	1.08	75	145
Misc. Contracts	1.00	72	181
Negligence	0.99	71	181
Other	0.75	63	72
Theft	0.75	63	72
Wrongful Charges	0.97	71	145

CourTools cost calculations were generously provided by Dr. Marcy Podkopacz of the Fourth District Court. Reported CourTools measures are constant within the Major Civil division (\$1,037) and the Minor Civil division (\$58). The Minor Civil division of the Court handles a number of administrative tasks. As the other administrative actions generally occur without hearings, our calculated mean for Conciliation cases is higher than the reported CourTools measure.

¹: We observe hearing counts for every Minor Civil case in our administrative data. The average number of hearings and estimated costs for the subcategories in the lower panel of this table come from the cases in our random sample.

Table 6: Judgments by category from administrative data

Category	Total cases	Num. with Judgment	Plaintiff Wins >\$0	Judgment amt. when > \$0	Net Benefit ¹
				Mean	Median
Major Civil					
Consumer Credit	2,438	1,608	1,564	\$9,383	\$8,026
Contract	6,757	3,232	2,963	440,685	418,261
Employment	1,099	142	68	98,604	65,605
Malpractice	192	36	9	289,220	229,015
Mechanics Lien	501	116	80	63,920	55,928
Personal Injury	6,477	697	470	93,853	78,407
Product Liability	951	4	0	31,214	18,964
Property Damage	650	385	370	9,613	8,189
Replevin	369	149	87	190,937	111,358
Wrongful Death	192	14	7	1,388,373	791,013
Minor Civil²	51,219	32,006		1,269,011	155,138

¹We calculate the net benefit seen here by assigning a benefit of case resolution equal to the judgment and subtracting our hearing-weighted cost measure as calculated in Table 5. If instead we assigned a benefit of case resolution equal to twice the judgment, for example due to deterrence, these net values would increase.

²Minor Civil case judgment victors and amounts are not available in our administrative data. We present the judgments observed in our random sample of Minor Civil cases in Table 7.

Table 7: Judgments by Minor Civil subcategory, from random sample of case documents

Minor Civil Subcategory	Cases in sample	Num. with Judgment	Plaintiff Wins >\$0	Judgment amt. when > \$0		Net Benefit ¹	
				Mean	Median	Mean	Median
Debt	687	435	415	\$2,009	\$1,428	\$1,875	\$1,314
Improper Seizure	12	3	0	N/A ²	N/A	-84	-72
Leasing	159	96	85	2,769	2,358	2,461	1,885
Misc. Contracts	27	9	8	3,694	3,275	3,199	1,941
Negligence	70	39	34	2,856	2,076	2,558	1,820
Wrongful Charges	33	18	15	2,834	1,570	2,602	1,448
Other	8	2	2	2,108	2,108	2,035	2,035

¹We calculate the net benefit seen here by assigning a benefit of case resolution equal to the judgment and subtracting our hearing-weighted cost measure as calculated in Table 5. If instead we assigned a benefit of case resolution equal to twice the judgment, for example due to deference, these net values would increase.

²No dollar awards were observed for the 'Improper seizure' subcategory.

Table 8: Settlements by category

Category	Num. Cases	Settled
Major Civil		
Consumer Credit	2,438	475
Contract	6,757	2,175
Employment	1,099	484
Malpractice	192	91
Mechanics Lien	501	236
Personal Injury	6,477	4,256
Product Liability	951	54
Property Damage	650	194
Replevin	369	83
Wrongful Death	195	114
Minor Civil	51,219	408

Table 9: Settlement estimation regression results

	Contract	Minor Civil
Requested relief (000s)	.223 (.0308)	.790 (.0226)
Alleged counts	-19.6 (7.54)	
Pages in complaint	.340 (.934)	
Documentation flag	-42.4 (99.0)	
Loan notes included	-17.7 (24.3)	
Total debt documented (000s)	.125 (.0180)	
Indicator: Exhibits present	-105 (49.7)	
Number of exhibits	9.85 (7.97)	
Contested flag		-.562 (.116)
Counterclaim flag		-.365 (.256)
Indicator: Leasing		.0647 (.231)
Indicator: Debt		.0405 (.211)
Indicator: Negligence		-.518 (.269)
Constant	345 (96.8)	.291 (.218)
R^2	0.40	0.68
N	340	602
Number of cases	6,757	51,219
Number of settlements overall	2,175	408
Number of settlements estimated	202	74
Mean estimated settlement	289,668	\$2,327
Median estimated settlement	254,306	\$1,868
Mean settlement net benefit	288,581	\$2,279
Median settlement net benefit	253,087	\$1,827

Note: Standard errors in parentheses. Judgments measured in thousands of dollars.

Table 10: Dismissals by category

Category	Num. Cases	Dismissed	Mean Estimated Cost to Court ¹
Major Civil			
Consumer Credit	2,438	354	\$-678
Contract	6,757	1,132	-868
Employment	1,099	191	-1,088
Malpractice	192	61	-1,522
Mechanics Lien	501	149	-757
Personal Injury	6,477	1,190	-870
Product Liability	951	836	-949
Property Damage	650	67	-747
Replevin	369	135	-725
Wrongful Death	195	57	-1,209
Minor Civil²	51,219	18,764	\$-33
Debt	687	190	-25
Improper Seizure	12	9	-76
Leasing	159	48	-29
Misc. Contracts	27	12	-60
Negligence	70	18	-59
Wrongful Charges	33	11	-66
Other	8	3	-72

¹ Cost to court estimated by hearing-adjusted cost measure shown in Table 5.

² Our administrative data reports whether or not each Minor Civil case was dismissed. The number of dismissals and estimated costs for the subcategories in the lower panel of this table come from the cases in our random sample.

Table 11: Net benefit of cases by category

Mean (median) net benefit	(1)	(2)	(3)	(4)
Major Civil				
Consumer Credit		5,047 (2,844)		5,005 (2,960)
Contract	292,796 (42,573)	199,561 (-556)	292,956 (42,926)	199,707 (-1,037)
Employment		7,614 (-556)		7,755 (-1,037)
Malpractice		41,866 (-1,112)		42,647 (-1,037)
Mechanics Lien		12,263 (-556)		12,359 (-1,037)
Personal Injury		7,578 (-556)		7,628 (-1,037)
Product Liability		-854 (-556)		-938 (-1,037)
Property Damage		4,479 (1,897)		4,509 (-1,037)
Replevin		44,499 (-556)		44,498 (-1,037)
Wrongful Death		55,046 (-1,112)		55,921 (-1,037)
Minor Civil	\$1,625 (1,510)	\$1,242 (493)	\$1,625 (1,504)	\$1,254 (507)
Costs adjusted for hearings?	Yes	Yes	No	No
Settlement benefit	Predicted	\$0	Predicted	\$0

Note: For these results, we assign a value of the social benefit of resolving a case equal to the judgment for the case. That value may come from righting-the-wrong, deterrence, or some combination of the two. If, instead, we assigned a value of the social benefit of resolving a case equal to twice the judgment, or some higher number, the numbers in this table would scale nearly linearly.