Do Administrative Courts Favor the Government? Evidence from Medical Malpractice in Spain[°]

Sofia AMARAL-GARCIA^{*} Nuno GAROUPA^{**}

Abstract

A standard argument against specialized administrative courts in the tradition of civil law jurisdictions is their lack of independence. They are perceived to be ineffective in restraining the government's interference with private rights, therefore failing to secure strong judicial independence. In this paper, we use a dataset of 365 medical malpractice cases decided by the Spanish Supreme Court in 2006-2010 to test the extent to which administrative courts are biased in favor of the government. We find no clear evidence that administrative courts decide more favorably for the defendant than civil courts.

Keywords: administrative courts, medical malpractice, Spain, capture, judicial behavior.

[°] We are indebted to ALEA 2012 (Stanford), AEDE 2012 (Valencia), U. Lausanne seminar participants and Rosa Ferrer for useful suggestions. Roya H. Samarghandi has provided valuable research assistance. The usual disclaimer applies.

Post-Doctoral Researcher, ETH Zurich, Professorship for Law. Haldeneggsteig 4, CH-8092 Zurich. Phone: +41-44-632-4671. Email: sagarcia@ethz.ch. Financial support is acknowledged to FCT, Portuguese Ministry of Higher Education and Science, grant SFRH/BD/37917/2007.

^{**} Professor of Law and the H. Ross and Helen Workman Research Scholar, University of Illinois College of Law. 504 East Pennsylvania Avenue, Champaign, Illinois 61820-6909. Phone: +1 (217) 333-2502; Fax: +1 (217) 244-1478; Email: ngaroupa@illinois.edu.

I. Introduction

Some legal scholars consider the separation of jurisdiction between civil and administrative courts in the French tradition as an example of inefficiency in legal governance (Mahoney, 2001).¹ A standard argument is that the administrative jurisdiction lacks true independence to effectively review the acts of the executive. From an economic perspective, we can say that French-style administrative courts are likely to be captured by the government, and therefore cannot effectively restrain the government from undermining private property rights.

Capture is one of the well-known costs of specialization.² The general implications must be assessed and configured in a framework that recognizes the benefits of specialization versus the costs of capture (Dari-Mattiacci *et al.*, 2010). Better training, better particularized information, tailored procedures in court to deal with the special features of the state as defendant or as plaintiff and better technology in evidence production is possible when judges have the training and the incentives to become specialists in administrative law. On the other hand, separation makes capture by the government easier. If specialization is more important than capture, that is, the benefits from specialization outweigh the costs of capture, administrative courts should exist for purposes of enforcing and interpreting administrative law. The opposite result is derived otherwise (Garoupa and Gómez, 2011).

Why should capture by the government be more likely in administrative than in civil courts? The knowledge of administrative law becomes a specific asset in human capital for the judges. Therefore, they are more dependent on (or more easily constrained by) the government (state officials). The marginal cost for the judge in deciding against the state or the government is much higher in administrative than in ordinary judicial courts (Mahoney, 2001). In fact, capture might simply result

¹ The issue of specialized administrative lawmaking has also deserved attention in the U.S. but the institutional arrangements are significantly different (Revesz, 1989).

² Generally on specialized courts, see Baum (2011).

from some hindsight bias by which administrative courts might have difficulties in envisaging that the state might have overreached (in relation to the appropriateness of intervention), either because of a cognitive bias (*e.g.*, the existence of the state is not to be questioned) or more simply because of self-preservation as state officials (Garoupa and Gómez, 2011).

Some cases in administrative litigation share a substantial portion of legal issues with ordinary tort cases (causation, proximate causation, determination of fault, estimation of harm). The major distinction is the identity of the defendant - the government in administrative courts and private parties in civil courts. There might be some advantage to tailoring legal proceedings to treat the government and private defendant differently.³ However, the possibility of limited judicial independence is significant. For example, the implications of a pro-plaintiff judgment in an administrative court can be anticipated by the judiciary in terms of the government's budget and costs imposed on public administration (which can be externalized to the taxpayers). At the same time, we might suspect the existence of important structural biases. Indeed, the influence of the administration and of special interests will tend to align the profile of the state bureaucracy with that of the specialized bench (favoring, for example, the administration in producing evidence or raising the costs for private parties to show lack of due care by the administration).

If the theoretical conditions for a pro-government bias in administrative courts have been well established, there is limited empirical evidence to support such a thesis. The mere comparison of reversal rates or pro-defendant decisions cannot constitute serious empirical evidence given standard identification and selection problems (Dari-Mattiacci *et al.*, 2010). In this paper, we use a dataset of 365 medical malpractice cases decided by the Spanish Supreme Court in 2006-2010 to test the extent to which administrative courts are biased in favor of the government.

Depending on a set of particular factors, medical malpractice cases in Spain can be handled by administrative or by civil courts. By the time they get appealed to the Spanish Supreme Court, they are filed with the civil section for private defendants or with the administrative section for the

³ See Bell (2007) at 291-93 and 299. He recognizes that the major advantage of separate administrative courts is the possibility to develop a set of principles that accepts the specific nature of the state as defendant (access to information, evidence produced by the administration, control over administrative discretion) balancing the interests of citizens and the ability of the administration to pursue the public interest.

government as a defendant. We enquire the extent to which administrative courts treat medical malpractice with an additional pro-defendant bias that is largely absent in civil courts.

Our analysis is based on two premises. First, the composition and behavior of judges sitting in the administrative section is not significantly different from those in the civil section. Unlike Germany, France or Italy, Spain has only one Supreme Court (rather than two separate Civil and Administrative Supreme Courts). Judges in the multiple sections of the Supreme Court have similar backgrounds (the administrative section could have more former state lawyers, *abogados del estado*, than the other sections but not enough to justify significant behavioral differences), they are recruited in the same way (by appointment of the Judicial Council, *Consejo General del Poder Judicial*), they are subject to the same retirement rules (tenure for life subject to mandatory retirement at seventy), the procedure to select the judge-rapporteur (the judge who writes the opinion of the deciding panel) is virtually the same (essentially random subject to expertise), even the workload is fairly similar (with the administrative section slightly more overloaded than the other sections). There is no significant reason to think that these two sections of the Court, civil and administrative, are different in any meaningful way.

Second, in the presence of a pro-defendant bias, we should expect the Supreme Court to correct such feature in the process of appeal. Judicial review by the Supreme Court operates as an error correction mechanism as suggested by previous literature (Shavell, 1995 & 2010). There might be a potential selection effect. Plaintiffs in administrative courts might be more likely to file an appeal because they anticipate the Court to be more favorable than in civil courts.⁴ However, we suggest that such possibility is not so problematic because our dataset deals with Supreme Court appeals. First, they are heavily regulated by procedural rules and overwhelmingly focused on points of law, and not facts

⁴ Another potential selection effect could be that plaintiffs prefer to sue in civil rather than administrative courts if they perceive a pro-defendant bias in the latter. However, in that respect, there is little margin to do so, in particular after the changes in the late 1990s that have essentially eliminated any possible scope for jurisdictional choice.

(furthermore, appeals are relatively low cost).⁵ Although the Spanish Supreme Court has no control over its docket (unlike the U.S. Supreme Court), the appeals are suppose to be of general importance and in reference to some relevant legal controversy. Unless there is a strong correlation between legal controversies and administrative law, the selection effect should be limited. Since our dataset refers to tortious behavior in the context of medical malpractice, it is very unlikely that legal controversies are more salient in administrative tort law than in civil tort law. Second, plaintiffs are likely to appeal if they have a legal chance because the Supreme Court can be more generous than lower courts (which tend to be bound by precedent) and to cancel off or preempt a likely appeal from defendants. Third, in fact, appeals are also filed by defendants, either the government (there is a presumption that state lawyers are expected to appeal up to the Supreme Court while out-of-court settlements are virtually not allowed) or private parties (aiming at undermining the effective payment of damages due to strategic delays and the possibility of statute of limitation).⁶

Suppose administrative courts are biased in favor of the government. Under the premises of our model, we should expect the Supreme Court to decide pro-plaintiff more frequently in administrative cases than in civil cases, controlling for the characteristics of the case. We investigate the extent to which we can find such error correction mechanism.

The paper goes as follows. Section II summarizes medical malpractice in Spain and the appeal process in the Spanish Supreme Court. Section III presents and describes the dataset. Section IV reports the regressions. Section V concludes with final remarks.

II. Medical Malpractice in the Spanish Supreme Court

Spain does not possess a specific law to regulate the physician-patient relationship. The first distinction to be noticed in Spanish law refers to the type of institution responsible for healthcare

⁵ In the abstract there is the possibility that the pro-defendant bias is only applicable to facts and not points of law. If so the Supreme Court would never be able to correct such possible bias. Given the practice in Spanish courts, it is extremely unlikely, if a bias exists, that only facts are affected.

⁶ Suppose all cases in administrative law courts are appealed (by either state lawyers or plaintiff) while only those that are more uncertain get appealed in civil law courts. We should expect the plaintiff to win around fifty percent of the time in civil law cases but substantially more in administrative law cases (if the Supreme Court corrects a possible pro-defendant bias).

delivery, *i.e.*, if the alleged medical injury took place in a public or in a private healthcare service.⁷ If a patient was harmed in a public hospital, independent of the relationship or activity that it resulted from, administrative law applies and patients can only present their claims in administrative courts. Moreover, formally, public administration is strictly liable in tort for the harm caused by personnel. In the case of harm in a private hospital, the civil code is the main body of law to be applied. A general standard of liability based on fault is applied and cases involving private healthcare providers are tried by civil courts. Although apparently there are different liability rules to be imposed according to the place of accident, case law shows that these differences have no practical effect. Courts base their decisions on the evidence of negligence; even if the injury took place in a public hospital a strict liability rule will not be applied.⁸

In the case of an allegation of medical malpractice from the plaintiff, a judgment will be made about the evidence of fault. The general rule is that the burden of proof lies with the patient, not only regarding the existence of fault but also on the proof of causation,⁹ although it is possible to apply a reversal of the burden of proof in exceptional cases and under specific conditions. Cases with a disproportional harm in comparison with the risk of the medical intervention (*daño desproporcionado*) or cases in which the defendant is in a better position to provide evidence (such as that the patient signed the informed consent sheet), are the most common examples on which a reversal of the burden of proof can be granted.¹⁰

The distinction between civil and administrative jurisdictions seems to be unproblematic nowadays. However, it has not been the case until the legislative reforms that were adopted in 1998 and 1999. The 1998 reform made it clear that liability cases concerning public administration can only be tried by the administrative jurisdiction, interdicting civil courts from judging those cases. Some months

⁷ See Gómez and Sanchez (2006) for problems arising from the Spanish liability regime.

⁸ There are several decisions from the Supreme Court defending this interpretation. See, for instance, STS 7800/2009, where it is claimed that a strict liability rule in medical cases will not be applied; were it to be applied, the state would become a universal insurer, even in cases where there was no evidence of negligence.

⁹ See STS 11.3.1991, RJ 1991/2209 and Art. 217, Law 1/2000 on Civil Procedure, of January 7. More generally, see Amaral-Garcia (2011).

¹⁰ For some Supreme Court decisions on this issue see STS 18.12.2009, STS 23.10.2007. The reversal of the burden of proof in medical accidents is recent when compared with its application to other cases. More generally, see Amaral-Garcia (2011).

later, in 1999, new legislation was put into force, stating that medical liability in cases involving social security institutions must be tried in the administrative jurisdiction as well. Therefore, it is possible to find civil court decisions of medical injuries taking place in public hospitals if the accident happened before that legislation entered into force.

The Spanish Supreme Court is the court of last appeal on points of law only. It is possible to consider a specialization of the Supreme Court in the sense that civil decisions of medical malpractice cases are issued by the First Subsection of the First (Civil) Section; administrative decisions are issued by the Sixth and (recently) Forth Subsections of the Third (Administrative) Section. This creates problems as well, because identical medical accidents can be tried in different jurisdictions and decided in different sections of the Supreme Court, when the only difference between them is the actual place of accident. Legal scholars argue that the *"polycentric character"* of the Spanish law of torts is responsible for several problems.¹¹ They note that it generates uncertainty because the court that will judge the case, the legal rules that should be applied and, to a certain extent, the final result might depend on random factors unrelated to the nature of the accident itself, and therefore difficult to predict *a priori;* victims might be subject to different treatments with respect to the quantification of damages, which is against the constitutional principle of equality; and it creates a loss of efficacy in terms of deterrence.

The Supreme Court has the power to deny the admission of the appeal, to confirm the decision made by the lower court, to totally reverse the previous decision or to reverse part of the previous decision, with or without remittal. As argued in several Supreme Court decisions, the court is not a *second court of appeal* and new facts cannot be brought in appeal. Therefore, the information about the case that arrives to the Supreme Court is essentially the same as the information available at the lower court.

The Spanish Supreme Court *de facto* produces precedents that will be followed by lower courts, which also hold for medical malpractice cases. Even taking into account that there is no formal rule of *stare decisis*, judges are influenced by prior decisions, especially if they come from the Supreme Court. Lower courts try to follow the same interpretation of the law as the Supreme Court, and they

¹¹ See Gómez and Sanchez (2006).

frequently cite its decisions.¹² According to Spanish law, the amount of compensation should be set by the lower court. Supreme Court decisions that modify the amount of compensation from lower courts are rare, given that there must be evidence of an unreasonable amount set by the previous court.

III. Dataset

We use the Spanish Supreme Court Medical Malpractice Dataset (SSCMMD),¹³ which includes 365 decisions¹⁴ made from 2006 until 2010. Table 1 summarizes the information we collected and the assigned variable.

<Table one here>

From Table 2, we can see that out of 365 decisions, seventy-four resulted from appeals filed by defendants, 276 from appeals filed by plaintiffs, and fifteen from appeals filed by both sides. One hundred twelve cases originated from civil courts and the remaining from administrative courts. They are fairly evenly distributed between pro-defendant and pro-plaintiff outcomes. Therefore, from the immediate analysis of the dataset, there seems to be no significant inclination for the administrative courts to be more pro-defendant than civil courts.

<Table two here>

IV. Regressions

We run several regressions to validate the observation from the immediate analysis of the dataset, that is, there seems to be no important inclination for the administrative courts to be more prodefendant than civil courts.

¹² Obviously, lower courts can make mistakes while interpreting Supreme Court decisions, even when using previous sentences as a guide.

¹³ For more details on this dataset, see Amaral-Garcia (2011).

¹⁴ The entire dataset has 366 decisions, but in one decision the patient did not specify the alleged level of injury.

The first set of logit regressions analyzes the decisions by the Supreme Court delivering a prodefendant outcome.¹⁵ In Table 3, we can see that having the defendant appealing the case has a negative impact on the likelihood of the defendant prevailing (which can be interpreted that defendants overuse appeals for other strategic reasons such as delay and tolling of statute of limitation). The odds of having a pro-defendant outcome are lower when the defendant appeals, which seems to be in line with the fact that the Supreme Court tends to agree with lower court decisions in the vast majority of cases.¹⁶ The dummy for administrative jurisdiction is not statistically significant (except in regressions one, two and six, where it has a negative impact on delivering a prodefendant outcome which is consistent with our hypothesis).

<Table three here>

In Table 4, we report another set of probit regressions. When the lower court delivers a prodefendant outcome, the Supreme Court is more likely to decide pro-defendant. The odds of having a pro-defendant outcome are much lower for cases involving permanent major injuries, and this result is robust across different specifications (notice that the baseline group is suffering a temporary/emotional injury). As before, the dummy for administrative jurisdiction is not statistically significant (except for regression two) and the coefficient is negative in all specifications.

<Table four here>

In Tables 5 and 6, we look at reversals by the Supreme Court. We should expect reversal rates to be higher for cases originating in administrative courts than in civil courts given the need to correct the alleged pro-defendant bias. The coefficient for administrative is positive in some specifications and negative in alternative econometric models (namely in Table 5, regressions three, four, five, six and seven; in Table 6, regressions three, four, five and six). However, the dummy for administrative jurisdiction is not statistically significant.

¹⁵ We have used *logit* in STATA 11. Coefficients are shown in odds ratio.

¹⁶ From 2006 until 2010 the agreement rate was equal to 86% for civil decisions and 79% for administrative medical malpractice decisions.

In Table 5 we use as regressor a dummy variable for defendant appeals, which is equal to one if the defendant appealed to the Supreme Court. The odds of having a reversed decision by the Supreme Court are much lower when the defendant appeals than when the plaintiff appeals. Additionally, suffering a permanent major injury increases the likelihood of having a reversal rate.

In Table 6 we have a dummy for lower court is pro-defendant, and exclude defendant appeals from the list of covariates. The results are similar to the ones we obtain in Table 5 with respect to magnitudes of the coefficients and statistical significance.

<Tables five-six here>

It is likely that the decisions of delivering a pro-defendant outcome and reversing the lower court decision are related. In order to account for this possibility, we run bivariate probit regressions and report them in Table 7.¹⁷ The Wald test statistic for the hypothesis that the two equations are independent clearly rejects it. Moreover, the parameter *rho* is in a range from -0.580 to -0.648, showing a strong negative correlation (which is consistent with our hypothesis). There is little additional information from previous analysis. Again, we can see that the administrative jurisdiction dummy is not statistically significant as in previous specifications. The coefficient is negative for a pro-defendant decision but varies for reversals.

<Table seven here>

We have pursued further robustness checks. Identical econometric specifications were considered with clustered standard errors at the regional level (Appendix A1) and with additional control variables such as regional GDP, regional population, total number of regional hospital beds per 1,000 inhabitants, and total number of public hospital beds per 1,000 inhabitants (Appendix A2). We also include further specifications with interaction terms (Appendices B and C), and consider the sub-

¹⁷ We have used *bivariate probit* in STATA 11.

sample of cases appealed by the plaintiff (Appendix D). The results are broadly the same and generally consistent with our findings.¹⁸

V. Final Remarks

We have used 365 medical malpractice cases decided by the Spanish Supreme Court in the period 2006-2010 to test for the alleged pro-government bias of specialized administrative courts. Our argument was that, if there is such bias, the Supreme Court should be able to correct it in the process of appeal. The derived hypothesis is that the Supreme Court should be more pro-plaintiff in cases originated from administrative courts than from civil courts, controlling for all other variables. We find no strong statistically significant effect to support the hypothesis. We also looked at reversal rates with identical results.

There are three possible explanations for our results. First, we do not observe any bias because simply the cases litigated in civil courts and in administrative courts are fundamentally different in dimensions that we do not control for or, alternatively, that are not reflected in the litigation that gets appealed to the Supreme Court.¹⁹ In other words, it could be that no bias is detected because we fail to account for some selection effect reflected only in the two distinct litigation settings but not in the Supreme Court (hence, it would have to be a missing variable that cannot be identified by considering Supreme Court cases only). Given the nature of the legal system and the known characteristics of the cases litigated in the Supreme Court (noticing that there is no case selection by the Supreme Court itself), it seems to us very unlikely that there are fundamental differences

¹⁸ Appendices B (B1 to B3) include an interaction variable "*Administrative* * *Plaintiff Appeals*"; Appendices C (C1 to C3) include two interaction variables, "*Administrative* * *Plaintiff Appeals*" and "*Civil* * *Plaintiff Appeals*"; Appendices D (D1 to D3) include results for the subsample "Plaintiff Appeals".

¹⁹ We performed Kolmogorov-Smirnov tests for the equality of distributions of cases arriving at the civil and administrative sections of the Supreme Court with respect to variables we believe to be the most relevant: the level of harm, patient age and medical specialties that received the higher number of claims and that are seen as riskier (obstetrics/gynecology, orthopedics and neurosurgery). We found no significant differences in the distribution of cases between the two sections.

between civil and administrative cases that we have ignored and, at the same time, are not reflected in any way in the cases that are appealed.²⁰

Another possible explanation is that such bias does exist, but the Supreme Court fails to correct it. A failure to correct such bias could be explained by the fact that the Supreme Court generally does not review facts (and the bias is fundamentally applied in relation to facts and not to the substance of law). A potential second reason is that the administrative division of the Supreme Court is also excessively deferent to the government. However, since there is no strong reason to think that the Supreme Court would exhibit judicial independence in civil litigation but not in administrative litigation (in fact, more generally, the court statistics do not show an excessive deference to the government), the interpretation would have to be that the Supreme Court is unaware or is unable to detect such bias in a systematic way. Such a situation seems unlikely if administrative courts were so obviously biased for the government (furthermore, when the line between facts and substance is somehow blurred in civil law jurisdictions, a strong bias favorable to the government in the review of facts would likely result in appeals to the Supreme Court).

Finally, the most plausible explanation is that there is no systematic bias in administrative courts. Medical malpractice is decided in similar ways in the two court jurisdictions and therefore the Supreme Court corrects legal errors that are uncorrelated with the nature of the law.²¹

Medical malpractice is an easy candidate to test the alleged bias of administrative courts due to the similarities of tort wrongdoing by government or by private defendant. The implications in terms of

²⁰ The obvious way to address accurately this possibility would be to draw a random sample of cases heard in the lower courts and compare the populations in the two litigation settings, as well as their treatment in the lower courts. Unfortunately, such possibility is unfeasible given limited access to court records (only Supreme Court decisions are generally available to the researchers). Even though a few lower court decisions might be accessible, the sample of cases is not random.

²¹ One possible but unlikely reason is that plaintiffs are aware of a pro-defendant bias in administrative courts and invest more resources than in civil litigation to overcome such bias. Although there is no easily available information, the general sense is not that litigation in administrative law courts is overwhelmingly more expensive than in civil law courts. Furthermore, it is unlikely that plaintiffs would spend more resources in litigation when they can appeal and get such possible bias corrected by the Supreme Court (appeals are certainly less expensive).

budget and public administration are also clear and are likely to satisfy the theoretical conditions to create a bias. In this context, our empirical results point out that such bias is probably nonexistent nowadays. However, generalizing to other areas of administrative law is difficult. Many distinctive areas of administrative law have no counterpart in civil law and therefore the particularities are more significant. They might enhance the incentives for capture in such context. It could also be that, given the particular tortious nature of medical malpractice, the government and the courts do not really care enough about it to exhibit a pro-defendant bias (for example, the courts might simply not understand public hospitals as government, although the resources are provided by the national budget). Therefore, our results must be interpreted with caution.

REFERENCES

S. Amaral-Garcia, Quantifying the Economics of Medical Malpractice – A View from a Civil Law Perspective, Erasmus University of Rotterdam (2011).

L. Baum, Specializing the Courts (Chicago Series in Law and Society), University of Chicago Press (2011).

J. Bell, Administrative Law in a Comparative Perspective, in Comparative Law: A Handbook (eds. Esin Örücü and David Nelken, 2007).

G. Dari-Mattiacci, N. Garoupa and F. Gómez-Pomar, State Liability, European Review of Private Law 18, 773-811 (2010).

N. Garoupa and C. Gómez Ligüerre, The Syndrome of the Efficiency of the Common Law, Boston University International Law Journal 29, 288-335 (2011).

F. Gómez-Pomar and V. Sánchez Álvarez, El Problema de la Responsabilidad de las Administraciones Públicas en Derecho Español: la Visión del Análisis Económico del Derecho, Sub Judice 34, 27–47 (2006).

P. Mahoney, The Common Law and Economic Growth: Hayek Might Be Right, Journal of Legal Studies 30, 503-25 (2001).

R. L. Revesz, Specialized Courts and the Administrative Lawmaking System, University of Pennsylvania Law Review 38, 1111 (1989).

S. Shavell, On the Design of the Appeals Process: The Optimal Use of Discretionary Review versus Direct Appeal, Journal of Legal Studies 39, 63–108 (2010).

S. Shavell, The Appeals Process as a Means of Error Correction, Journal of Legal Studies 24, 379–426. (1995).

F. A. Sloan and C. Hsieh, Variability In Medical Malpractice Payments: Is the Compensation Fair?, Law & Society Review 24, 997–1039 (1990).

Table 1 – Variables Description

Variable	Variable Description
Pro-defendant	Equals one if the Supreme Court decided in favor of the defendant (<i>i.e.</i> , no
	compensation should be awarded to the plaintiff) and zero otherwise.
Administrative	Dummy equal to one if the decision is made by the Administrative Section;
	zero if it is made by the Civil Section.
Lower Court Pro-Defendant	Equals one if the lower court decided in favour of the defendant, and zero
	otherwise.
Injury Severity Level	The harm level ²² suffered by the patient was divided between the following
	categories:
Temporary/emotional injury	Equals one for temporary and emotional injuries (fright, no physical
	damage; lacerations, contusions, minor scars, rash, no delay; infections,
	mis-set fracture, fall in hospital - recovery delayed; burns, surgical material
	left, drug side effect - recovery delayed).
Permanent minor injury	Equals one for permanent minor injuries (loss of fingers, loss or damage
	to organs - includes nondisabling injuries; deafness, loss of limb, loss of eye,
	loss of one kidney or lung).
Permanent major injury	Equals one for permanent major injuries (paraplegia, blindness, loss of
	two limbs, brain damage; quadraplegia, severe brain damage, lifelong care
	or fatal prognosis).
Death	Cases involving death.
Supreme Court reverses Lower	Dummy equal to one if the Supreme Court reverses the previous decision
Court	with respect to compensation, zero otherwise.
Duration	Number of months between the lower court decision and the Supreme
	Court decision.
Pre 1998 Reform	Equals one if the medical accident took place before the 1998 reform, and
	zero if it took place after the reform was into force.
Individual Defendant	Dummy equal to one if the defendant is an individual.
Public Hospital	Dummy equal to one if the medical accident took place in a public hospital.
Private Hospital	Dummy equal to one if the medical accident took place in a private
	hospital.
Doctor's Specialty	We collected information on the main doctor's specialty involved in the
	medical accident. The specialties considered are the following:
obstetrics/ginecology	Equals one if the main medical specialty involved in the medical
	accident was obstetrics/ginecology.
neurology, neurosurgery or	Equals one if the main medical specialty involved in the medical
orthopedics	accident was neurology, neurosurgery or orthopedics.
anesthesiology	Equals one if the main medical specialty involved in the medical
	accident was anesthesiology.
general surgery	Equals one if the main medical specialty involved in the medical
	accident was general surgery.
emergency medicine	Equals one if the medical accident took place in the emergency room.
Ln(GDP per cap)	Log of regional GDP per capita (2010 prices).
Reg. Hosp. Beds per 1,000	Total number of regional hospital beds per 1,000 inhabitants.
Public Hosp. Beds per 1,000	Total number of regional public hospital beds per 1,000 inhabitants.
Madrid	Dummy equal to one if the medical accident was in the region of Madrid.

²² We categorized the levels of injury severity by following the same methodology as Sloan and Hsieh (1990), in accordance with the National Association of Insurance Commissioners. However, we needed to reduce the categories to four, as presented in Table 1.

Appellant Party and SC	Jurisdiction							
Decision	Adm.	Civil	Total					
Both Parties Appeal								
Pro-Defendant	1	0	1					
Pro-Plaintiff	7	7	14					
Defendant Appeals								
Pro-Defendant	3	5	8					
Pro-Plaintiff	35	31	66					
Plaintiff Appeals								
Pro-Defendant	131	52	183					
Pro-Plaintiff	76	17	93					
Total Pro-Defendant	135 (53%)	57 (51%)	192 (53%)					
Total Pro-Plaintiff	118 (47%)	55 (49%)	173 (47%)					

Table 2 – Jurisdiction, appellant party and Supreme Court decision

	able of hegicostori	icourio ior ouprei	ine eoure delivers	arre gelendunt	outcomer Derent		-9	
	Reg 1	Reg 2	Reg 3	Reg 4	Reg5	Reg 6	Reg 7	Reg 8
Administrative	0.52**	0.51**	0.60	0.62	0.64	0.41*	0.45	0.41
	(0.04)	(0.03)	(0.25)	(0.28)	(0.46)	(0.09)	(0.22)	(0.19)
Defendant Appeals	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Permanent Minor	0.39*	0.38**	0.38**	0.37**	0.37**	0.36**	0.36**	0.35**
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)
Permanent Major	0.35**	0.28**	0.28**	0.27***	0.27***	0.26***	0.26***	0.25**
	(0.04)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Death	0.44	0.43	0.42	0.40*	0.40*	0.36*	0.36*	0.32**
	(0.12)	(0.11)	(0.11)	(0.08)	(0.08)	(0.06)	(0.06)	(0.04)
Newborn	0.62							
	(0.19)							
Madrid	1.12	1.16	1.19	1.14	1.14	1.16	1.16	1.09
5 ()	(0.68)	(0.58)	(0.51)	(0.63)	(0.64)	(0.59)	(0.60)	(0.76)
Duration (months)			1.01	1.01	1.01	1.01	1.01	1.00
			(0.63)	(0.50)	(0.50)	(0.60)	(0.60)	(0.76)
Pos 1998 Reform				1.45	1.45	1.46	1.45	1.44
Individual Defendent				(0.26)	(0.26)	(0.26)	(0.26)	(0.28)
Individual Defendant					1.05		1.12	1.00
Dublic Hospital					(0.93)	1.65	(0.83)	(1.00)
						1.05	1.00	1.// (0.2E)
Privata Haspital						(0.40)	(0.59)	(0.55)
Private Hospital						0.91	0.91	0.82 (0.7E)
Obstatrics/Gyp						(0.87)	(0.87)	(0.73)
Obstetrics/ Gyri								(0.15)
Neuro/Orthopedics								(0.13)
Neuro/Orthopedies								(0.42)
Anesth/Reanim								1 9/
Allesting Realisting								(0.41)
General Surgery								0.50
Centeral Salgery								(0.15)
Emergency Medicine								0.94
								(0.90)
Number of Obs	365	365	365	364	364	364	364	364
Log Likelihood	-196.6	-197.4	-197.3	-196.6	-196.6	-195.5	-195.5	-192.8
LR Chi Square	74.8	71.9	72.0	70.4	70.9	73.8	74.3	78.7

Table 3 - Regression Results for Supreme Court delivers a Pro-Defendant outcome. 'Defendant Appeals' as regressor.

Note: Coefficients in odds-ratios; robust *p*-values in parentheses. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable (SC is Pro-Defendant) equals one if the SC delivered a prodefendant outcome (*i.e.*, no compensation) All regressions include year fixed effects.

	- negression nesu	to tor supremie et		Bereinaant Outer	chie. Lower court		1 43 1 65 1 63301	
	Reg 1	Reg 2	Reg 3	Reg 4	Reg5	Reg 6	Reg 7	Reg 8
Administrative	0.55	0.54*	0.66	0.66	0.81	0.46	0.59	0.54
	(0.12)	(0.10)	(0.44)	(0.44)	(0.78)	(0.21)	(0.51)	(0.45)
Lower Court Pro-Def	49.00***	47.61***	47.68***	47.17***	47.15***	48.02***	48.14***	50.62***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Permanent Minor	0.46	0.44*	0.44*	0.44*	0.44*	0.42*	0.42*	0.39*
	(0.11)	(0.09)	(0.10)	(0.09)	(0.09)	(0.08)	(0.07)	(0.06)
Permanent Major	0.33**	0.23***	0.23***	0.23***	0.23***	0.21***	0.21***	0.21***
	(0.03)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Death	0.51	0.49	0.48	0.46	0.47	0.42	0.42	0.37
	(0.21)	(0.19)	(0.18)	(0.18)	(0.18)	(0.14)	(0.14)	(0.11)
Newborn	0.47*							
	(0.07)							
Madrid	0.82	0.87	0.90	0.89	0.88	0.90	0.89	0.83
	(0.53)	(0.66)	(0.74)	(0.70)	(0.68)	(0.73)	(0.72)	(0.58)
Duration (months)			1.01	1.01	1.01	1.01	1.01	1.00
			(0.62)	(0.58)	(0.59)	(0.65)	(0.67)	(0.80)
Pos 1998 Reform				1.16	1.16	1.15	1.15	1.12
				(0.69)	(0.70)	(0.70)	(0.71)	(0.77)
Individual Defendant					1.28		1.38	1.30
					(0.70)	4.60	(0.62)	(0.71)
Public Hospital						1.60	1.61	1.91
						(0.51)	(0.51)	(0.37)
Private Hospital						0.92	0.91	0.80
Obstatuias (Cura						(0.91)	(0.89)	(0.75)
Obstetrics/Gyn								0.55
Nouro (Orthonodice								(0.18)
Neuro/Orthopedics								0.89
Aposth/Roopim								2 86
Allesting Realinin								2.00
General Surgery								0.22)
General Surgery								(0.54)
Emergency Medicine								0.78
Linergency medicine								(0.66)
Number of Obs	365	365	365	364	364	364	364	364
Log Likelihood	-157 0	-158 7	-158 5	-158 4	-158 3	-157 7	-157 5	-155 4
LR Chi Square	107.1	105.5	105.8	104.7	105.2	110.8	111.0	113.7

Table 4 - Regression Results for Supreme Court delivers a Pro-Defendant outcome. 'Lower Court is Pro-Defendant' as regressor

Note: Coefficients in odds-ratios; robust *p*-values in parentheses. * p<0.1, ** p<0.05, *** p<0.01. Dependent variable (SC is Pro-Defendant) equals one if the SC delivered a prodefendant outcome (*i.e.*, no compensation). All regressions include year fixed effects.

	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 7	Reg 8
Administrative	1.17	1.20	0.72	0.73	0.93	0.79	0.98	1.16
	(0.65)	(0.61)	(0.52)	(0.54)	(0.92)	(0.70)	(0.98)	(0.86)
Defendant Appeals	0.37**	0.37**	0.37**	0.38**	0.38**	0.38**	0.38**	0.39**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)
Permanent Minor	5.85*	6.07*	6.10*	5.99*	5.95*	5.80*	5.77*	5.69
	(0.09)	(0.08)	(0.09)	(0.09)	(0.09)	(0.10)	(0.10)	(0.10)
Permanent Major	5.93*	8.08**	8.11**	7.94*	7.82*	7.89*	7.77*	6.75*
	(0.09)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.07)
Death	4.10	4.25	4.51	4.41	4.42	4.36	4.36	4.12
	(0.19)	(0.18)	(0.17)	(0.18)	(0.18)	(0.18)	(0.18)	(0.21)
Newborn	1.98*							
	(0.07)							
Madrid	1.27	1.18	1.09	1.07	1.06	1.06	1.05	1.17
	(0.43)	(0.56)	(0.77)	(0.82)	(0.84)	(0.84)	(0.86)	(0.62)
Duration (months)			0.98	0.98	0.98	0.98	0.98	0.99
			(0.17)	(0.21)	(0.20)	(0.23)	(0.22)	(0.36)
Pos 1998 Reform				1.15	1.15	1.17	1.16	1.18
				(0.71)	(0.71)	(0.68)	(0.68)	(0.66)
Individual Defendant					1.34		1.34	1.49
					(0.64)		(0.64)	(0.53)
Public Hospital						0.62	0.62	0.56
						(0.40)	(0.41)	(0.32)
Private Hospital						0.62	0.61	0.62
Obstatrics/Gyp						(0.40)	(0.39)	(U.43) 2 17*
Obstetries/ Gym								(0.08)
Neuro/Orthopedics								1.38
-								(0.47)
Anesth/Reanim								1.14
								(0.89)
General Surgery								1.66
Emorgonov Modicino								(0.37)
Lineigency Medicine								(0.27)
Number of Obs	365	365	365	364	364	364	364	364
Log Likelihood	-167.0	-168.6	-167.6	-167.4	-167.3	-167.1	-167.0	-165.1
LR Chi Square	13.8	11.4	12.8	13.1	13.5	13.8	14.3	18.2

Table 5 - Regression Results for Supreme Court Reverses Lower Court decision. 'Defendant Appeals' as regressor.

Note: Coefficients in odds-ratios; robust *p*-values in parentheses. * p<0.1, ** p<0.05, *** p<0.01. 'SC Reverses Lower Court' is the dependent variable (equals 1 if the SC reverses Lower Court decision). All regressions include year fixed effects.

	•	•					0	
	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 7	Reg 8
Administrative	1.18	1.21	0.73	0.73	0.94	0.82	1.03	1.20
	(0.64)	(0.59)	(0.54)	(0.54)	(0.93)	(0.75)	(0.97)	(0.81)
Lower Court Pro-Def	4.42***	4.46***	4.47***	4.41***	4.39***	4.45***	4.42***	4.45***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Permanent Minor	6.66*	6.90*	6.85*	6.80*	6.74*	6.57*	6.51*	6.37*
	(0.07)	(0.06)	(0.07)	(0.07)	(0.07)	(0.08)	(0.08)	(0.08)
Permanent Major	6.64*	8.96**	8.88**	8.80**	8.66**	8.79**	8.65**	7.43*
	(0.08)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.06)
Death	4.51	4.67	4.97	4.94	4.95	4.95	4.94	4.66
	(0.16)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.17)
Newborn	1.91*							
	(0.09)							_
Madrid	1.16	1.09	1.00	0.99	0.98	0.97	0.96	1.07
	(0.64)	(0.78)	(0.99)	(0.97)	(0.94)	(0.92)	(0.90)	(0.83)
Duration (months)			0.98	0.98	0.98	0.98	0.98	0.99
D 1000 D ((0.17)	(0.19)	(0.18)	(0.21)	(0.20)	(0.31)
Pos 1998 Reform				1.06	1.06	1.08	1.08	1.10
hadi dahad Dafarada at				(0.87)	(0.88)	(0.83)	(0.84)	(0.79)
Individual Defendant					1.36		1.35	1.56
Dublic Hospital					(0.62)	0.56	(0.63)	(0.48)
Public Hospital						0.56	0.57	0.54
Drivete Lleepitel						(0.34)	(0.35)	(0.33)
Private Hospital						0.01	0.00	0.03
Obstatzias (Cur						(0.40)	(0.39)	(0.47)
Obstetrics/Gyn								2.23
Neuro/Orthonedics								(0.07)
Neuroy Orthopedies								(0.30)
Anesth/Reanim								(0.33)
Ancstry Keamin								(0.87)
General Surgery								1.88
General Surgery								(0.27)
Emergency Medicine								1 75
Emergency medicine								(0.30)
Number of Obs	365	365	365	364	364	364	364	364
Log Likelihood	-161.3	-162.7	-161.6	-161.6	-161.4	-161.2	-161.0	-159.2
LR Chi Square	22.2	20.3	22.1	22.2	22.9	23.0	23.8	28.1

Table 6 - Regression Results for Supreme Court Reverses Lower Court decision. 'Lower Court is Pro-Defendant' as regressor.

Note: Coefficients in odds-ratios; robust p-values in parentheses. * p<0.1, ** p<0.05, *** p<0.01.'SC Reverses Lower Court' is the dependent variable (equals 1 if the SC reverses Lower Court decision). All regressions include year fixed effects.

	Model (1)		Model (2)		Model (3)		Model (4)		
	Pro-	SC Reverses	Pro-	SC	Pro-	SC	Pro-	SC	
	Defendant		Defendant	Reverses	Defendant	Reverses	Defendant	Reverses	
Constant	2.09	0.43	2.64	0.31	0.42	0.32	0.42	0.24*	
	(0.26)	(0.24)	(0.21)	(0.17)	(0.21)	(0.11)	(0.29)	(0.08)	
Administrative	0.74	0.81	0.58	1.11	0.73	0.78	0.67	1.06	
	(0.25)	(0.45)	(0.17)	(0.81)	(0.28)	(0.37)	(0.36)	(0.88)	
Defendant Appeals	0.22***	0.82	0.22***	0.84					
	(0.00)	(0.27)	(0.00)	(0.31)					
Lower Court Pro-Def					7.06***	1.51***	7.24***	1.52***	
					(0.00)	(0.01)	(0.00)	(0.01)	
Permanent Minor	0.59*	2.52**	0.56**	2.41*	0.71	2.66**	0.64*	2.46**	
	(0.06)	(0.04)	(0.05)	(0.06)	(0.19)	(0.02)	(0.10)	(0.04)	
Permanent Major	0.49**	2.70**	0.47**	2.40*	0.48***	2.82**	0.45***	2.44**	
	(0.01)	(0.03)	(0.01)	(0.06)	(0.01)	(0.02)	(0.00)	(0.04)	
Death	0.63	2.07	0.55*	1.98	0.74	2.12*	0.65	1.98	
	(0.14)	(0.13)	(0.07)	(0.17)	(0.33)	(0.10)	(0.18)	(0.15)	
Duration (months)	1.00	0.99	1.00	0.99	1.00	0.99	1.00	0.99	
	(0.58)	(0.18)	(0.81)	(0.33)	(0.79)	(0.17)	(0.99)	(0.27)	
Pos 1998 Reform	1.25	1.09	1.26	1.10	1.08	1.07	1.09	1.08	
	(0.28)	(0.70)	(0.26)	(0.65)	(0.72)	(0.76)	(0.71)	(0.71)	
Individual Defendant			1.01	1.39			1.26	1.43	
			(0.97)	(0.34)			(0.51)	(0.27)	
Public Hospital			1.43	0.74			1.42	0.74	
			(0.31)	(0.36)			(0.39)	(0.40)	
Private Hospital			0.88	0.72			0.83	0.70	
			(0.71)	(0.32)			(0.64)	(0.31)	
Obstetrics/Gyn			0.74	1.54*			0.77	1.57*	
			(0.15)	(0.07)			(0.26)	(0.06)	
Neuro/Orthopedics			0.88	1.26			1.05	1.29	
			(0.57)	(0.32)			(0.83)	(0.27)	
Anesth/Reanim			1.46	1.21			1.84	1.28	
			(0.36)	(0.67)			(0.15)	(0.59)	
General Surgery			0.68	1.32			0.88	1.42	
			(0.17)	(0.36)			(0.67)	(0.26)	
Emergency Medicine			1.01	1.40			0.95	1.37	
			(0.97)	(0.25)			(0.86)	(0.29)	
Madrid	1.07	1.02	1.05	1.05	0.90	0.97	0.90	0.99	
	(0.69)	(0.91)	(0.78)	(0.78)	(0.56)	(0.86)	(0.56)	(0.97)	
Athrho Constant	0.52	2***	0.51	***	0.47	0.47***		0.46***	

Table 7 - Bivariate Probit Regression Results

	(0.00)	(0.00)	(0.00)	(0.00)
Observations	364	364	364	364
rho	-0.580	-0.590	-0.633	-0.648
Wald test of rho=0	46.77	49.39	54.36	61.71
[chi2(1)]	113.5	148.3	209.2	270.3
Wald chi2 of the model	24	40	24	40
(df model)	-339.8	-333.7	-287.6	-281.7
Log pseudolikelihood				

Note: Exponentiated coefficients; robust *p*-values in parentheses; *** p<0.01, ** p<0.05, * p<0.1. All regressions include year fixed effects.

Appendix A1: Cluster by Region

Appendix A2: Additional Variables

Appendix B1: Interaction *Adm*PlaintiffAppeals*

Appendix B2: Interaction *Adm*PlaintiffAppeals*, Cluster by Region

Appendix B3: Interaction *Adm*PlaintiffAppeals* with Additional Variables

Appendix C1: Interactions Adm*PlaintiffAppeals and Civil*PlaintiffAppeals

Appendix C2: Interactions Adm*PlaintiffAppeals and Civil*PlaintiffAppeals, Cluster by Regions

Appendix C3: Interactions Adm*PlaintiffAppeals and Civil*PlaintiffAppeals, with Additional Variables

Appendix D1: Subsample Plaintiff Appeals

Appendix D2: Subsample Plaintiff Appeals, Cluster by Regions

Appendix D3: Subsample Plaintiff Appeals with Additional Variables